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December 21, 2021

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: PJM Interconnection, L.L.C., Docket No. ER22-702-000

Dear Secretary Bose:

In accordance with Schedule 12 of the PJM Open Access Transmission Tariff (“Tariff”) and pursuant to section 205 of the Federal Power Act,¹ PJM Interconnection, L.L.C. (“PJM”) hereby submits amendments to Schedule 12-Appendix² and Schedule 12-Appendix A³ of the PJM Tariff to provide updated annual cost allocations for Regional Facilities and Necessary Lower Voltage Facilities⁴ (in Schedule 12-Appendix and Schedule 12-Appendix A) and Lower Voltage

¹ 16 U.S.C. § 824d.

² The cost responsibility assignments for all projects included in the regional transmission expansion plan (“RTEP”) prior to February 1, 2013, are located in Schedule 12-Appendix. *See* Tariff, Schedule 12, section (a)(v).

³ The cost responsibility assignments for all projects in the RTEP after February 1, 2013, are included in Tariff, Schedule 12-Appendix A. *See id.*

⁴ Under Tariff, Schedule 12-Appendix, “Regional Facilities” include new transmission enhancements and expansions that will operate at or above 500 kilovolts (“kV”), and “Necessary Lower Voltage Facilities” include new transmission enhancements that will operate below 500 kV that must be constructed or strengthened to support new Regional Facilities. Under Tariff, Schedule 12-Appendix, only Regional Facilities and Necessary Lower Voltage Facilities are updated annually. Under Tariff, Schedule 12-Appendix A, Regional Facilities include: (i) new transmission enhancements that are alternating current (“A.C.”) facilities that operate at or above 500 kV; (ii) single enhancements comprised of two A.C. circuits operating at or above 345 kV, and below 500 kV, where both circuits originate from a single substation or switching station at one end and terminate at a single substation or switching station at the other end; (iii) A.C. or direct current (“D.C.”) shunt reactive resources connected to a Transmission Facility described in (i) or (ii); or (iv) D.C. facilities. Necessary Lower Voltage Facilities are defined the same for Tariff, Schedule 12-Appendix and Tariff, Schedule 12-Appendix A. *See* Tariff, Schedule 12, section (b)(i). Under Tariff, Schedule 12-Appendix A, Regional Facilities and Necessary Lower Voltage Facilities are updated annually and Lower Voltage Facilities are updated annually, beginning with the calendar year in which the enhancement is scheduled to enter service and thereafter annually at the beginning of each calendar year. *See* Tariff, Schedule 12, section (b)(iii)(H)(2).

Facilities⁵ (in Schedule 12-Appendix A only) included in the PJM RTEP. The proposed revisions also include minor, non-substantive revisions to Tariff, Schedule 12-Appendix and Tariff, Schedule 12-Appendix A.

I. DESCRIPTION OF FILING

A. *Background*

1. *Cost Allocation Methodologies Prior to February 1, 2013*

On April 19, 2007, the Commission issued two companion orders relating to the assignment of cost responsibility for transmission enhancements and expansions included in the RTEP.⁶ In Opinion No. 494 in Docket Nos. EL05-121-000, et al., the Commission accepted “PJM’s proposal to fully allocate, on a region-wide basis, the costs of new, centrally-planned facilities that operate at or above 500 kV.”⁷ The Commission further directed PJM to submit a compliance filing within 30 days to implement “the necessary revisions to PJM’s Tariff and Operating Agreement.”⁸ On the same day, in the Rehearing Order in Docket Nos. ER06-456-008, et al., the Commission ordered PJM to “submit proposed revisions to its cost allocations set forth

⁵ “Lower Voltage Facilities” are facilities that are not Regional Facilities or Necessary Lower Voltage Facilities. See Tariff, Schedule 12, section (b)(ii).

⁶ See *PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,067 (2007) (“Rehearing Order”); *PJM Interconnection, L.L.C.*, Opinion No. 494, 119 FERC ¶ 61,063 (2007), *order on reh’g*, Opinion No. 494-A, 122 FERC ¶ 61,082 (2008). On August 6, 2009, the United States Court of Appeals for the Seventh Circuit, on a petition for review of Opinion Nos. 494 and 494-A, remanded these orders to the Commission for further proceedings. See *Ill. Com. Comm’n v. FERC*, 576 F.3d 470 (7th Cir. 2009), *order on remand*, *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 (2012). On July 25, 2014, the United States Court of Appeals for the Seventh Circuit (“Seventh Circuit”), on a petition for review of the Commission’s Order on Remand, remanded the matter for a second time to the Commission for further proceedings. See *Ill. Com. Comm’n v. FERC*, 756 F.3d 556 (7th Cir. 2014). On December 18, 2014, the Commission issued an Order Establishing Hearing and Settlement Judge Procedures in Docket No. EL05-121-009. See *PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,233 (2014).

⁷ Opinion No. 494 at P 76. The Commission further noted that, under PJM’s proposal, “lower voltage facilities that are necessary to construct a particular new project at 500 kV and above would also be rolled in to the 500 kV and above postage stamp rate.” *Id.* at P 79 n.103.

⁸ *Id.* at P 83.

in Schedule 12-Appendix of the Tariff to reflect the allocations required by” Opinion No. 494.⁹ On May 21, 2007, PJM submitted the two compliance filings required by Opinion No. 494 and the Rehearing Order.¹⁰ In the compliance filing required by Opinion No. 494, PJM specified that cost responsibility for such facilities would be allocated annually on a region-wide basis.¹¹ The Commission accepted both compliance filings.¹²

Parties sought review of Opinion No. 494 in the United States Court of Appeals for the Seventh Circuit (“Seventh Circuit”). The Seventh Circuit granted the petition for review regarding the allocation of all of the costs of new transmission facilities that operate at or above 500 kV on a load-ratio share basis and remanded the case to the Commission for further proceedings.¹³ On remand, the Commission affirmed the 100 percent load-ratio share for new transmission facilities that operate at or above 500 kV.¹⁴ Parties again sought review and the Seventh Circuit again reversed and remanded the Commission’s determination that the costs of transmission facilities that operate at or above 500 kV should be allocated on a 100 percent load-ratio share basis.¹⁵ In the second proceeding on remand, the Commission established hearing and settlement judge procedures to determine the appropriate cost allocation for the transmission projects that remained at issue in the docket (i.e., the Regional Facilities approved before February 1, 2013, whose costs were allocated in accordance with the 100 percent load-ratio share method established in Opinion

⁹ Rehearing Order at Ordering Paragraph (C).

¹⁰ PJM amended its filing in Docket Nos. ER06-456-012, *et al.*, on July 26, 2007. *See PJM Interconnection, L.L.C., Amendment to Compliance Filing*, Docket Nos. ER06-456-012, *et al.* (July 26, 2007).

¹¹ *See PJM Interconnection, L.L.C., Compliance Filing*, Docket No. EL05-121-004, at 4 (May 21, 2007).

¹² Opinion No. 494-A at P 92; *PJM Interconnection, L.L.C.*, 122 FERC ¶ 61,217, at PP 20-21 (2008).

¹³ *See Ill. Com. Comm’n v. FERC*, 576 F.3d 470.

¹⁴ *PJM Interconnection, L.L.C.*, 138 FERC ¶ 61,230 (2012), *order on reh’g*, 142 FERC ¶ 61,216 (2013).

¹⁵ *Ill. Com. Comm’n v. FERC*, 756 F.3d 556.

No. 494).¹⁶ On June 15, 2016, the Settling Parties¹⁷ submitted an Offer of Settlement in the docket.¹⁸

On May 31, 2018, the Commission issued an order approving the contested Settlement pending in Docket No. EL05-121-009,¹⁹ finding that the overall result of the Settlement is just and reasonable.²⁰ For the going-forward period (the period commencing January 1, 2016, onward) the May 31 Order on Contested Settlement accepted modifications to the cost allocation methodology for Covered Transmission Enhancements included in the Tariff, Schedule 12-Appendix to assign cost responsibility to Responsible Customers for each Covered Transmission Enhancement listed

¹⁶ *PJM Interconnection, L.L.C.*, 149 FERC ¶ 61,233, at P 2 (2014).

¹⁷ The Settling Parties included: American Electric Power Service Corporation, on behalf of its operating companies; Baltimore Gas and Electric Company, an Exelon Company; Blue Ridge Power Agency, Inc.; The Dayton Power and Light Company; Delaware Municipal Electric Corporation, Inc.; Duke Energy Business Services, LLC on behalf of Duke Energy Ohio, Inc. and Duke Energy Kentucky, Inc.; Duquesne Light Company; East Kentucky Power Cooperative, Inc.; Exelon Corporation as agent for Commonwealth Edison Company and PECO Energy Company; FirstEnergy Utilities on behalf of affiliates American Transmission Systems, Incorporated, The Cleveland Electric Illuminating Company, Jersey Central Power & Light Company, Metropolitan Edison Company, Ohio Edison Company, Monongahela Power Company, Pennsylvania Electric Company, Pennsylvania Power Company, The Potomac Edison Company, Toledo Edison Company, and West Penn Power Company; Illinois Commerce Commission; Indiana Utility Regulatory Commission; Michigan Public Service Commission; Pennsylvania Public Utility Commission; Pepco Holdings, LLC, an Exelon Company, and Potomac Electric Power Company, Delmarva Power & Light Company and Atlantic City Electric Company; PJM Interconnection, L.L.C.; PPL Electric Utilities Corporation; Public Service Commission of West Virginia; Public Utilities Commission of Ohio; and UGI Utilities, Inc. Additionally, the following parties have agreed to be listed in the Settlement as “NonOpposing Parties”: Consolidated Edison Company of New York, Inc.; Delaware Public Service Commission; Maryland Public Service Commission; New Jersey Board of Public Utilities; Old Dominion Electric Cooperative; PSEG Energy Resources & Trade LLC; Public Power Association of New Jersey; Public Service Electric and Gas Company; Public Service Commission of the District of Columbia; Rockland Electric Company; Virginia Electric and Power Company, DBA Dominion Virginia Power; and the Virginia State Corporation Commission.

¹⁸ *PJM Interconnection, L.L.C.*, Offer of Settlement, Docket No. EL05-121-009 (June 15, 2016) (“Settlement”).

¹⁹ The following parties contested the Settlement: Linden VFT, LLC (“Linden VFT”), Long Island Power Authority (“LIPA”), Neptune Regional Transmission System, LLC (“Neptune”), Hudson Transmission Partners, LLC (“Hudson”), and New York Power Authority (“NYPA”) (collectively, the “Contesting MTF Parties”).

²⁰ *PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,168 (2018) (“May 31 Order on Contested Settlement”). The Settlement provided for a new Schedule 12-C and three appendices to be added to the Tariff, effective January 1, 2016. Specifically, Tariff, Schedule 12-C includes: (i) Appendix A (List of Covered Transmission Enhancements, including Covered Transmission Enhancements that were canceled or abandoned (“Canceled Projects”) before entering service); (ii) Appendix B (50 percent cost responsibility allocations for Canceled Projects); and (iii) Appendix C (Transmission Enhancement Charge Adjustments). For purposes of this filing, only Tariff, Schedule 12-C, Appendix A and Appendix B are relevant to determine which cost allocation are to be updated.

in Schedule 12-C, Appendix A,²¹ based on the agreed-upon hybrid methodology in which (1) 50 percent of the cost responsibility shall be assigned to Responsible Customers using the annual load-ratio share method;²² and (2) 50 percent of the cost responsibility shall be assigned to Responsible Customers as follows: (i) for Canceled Projects identified in Schedule 12-C, Appendix A, the cost assignments are set forth in Schedule 12-C, Appendix B; and (ii) for all other projects identified in Schedule 12-C, Appendix A, cost assignments are based on solution-based distribution factor (“DFAX”) method set forth in Schedule 12, section (b)(i)(A)(2)(a), which is the solution-based DFAX methodology accepted by the Commission in the March 22 Order.²³

In compliance with the May 31 Order on Contested Settlement, PJM submitted in eTariff format the *pro forma* Tariff records to include a new Schedule 12-C, including Appendices A through C, as well as amendments to cost responsibility assignments to reflect such changes to Schedule 12-Appendix relative to the 2017 and 2018 annual updates.²⁴ By order dated December 19, 2019, the Commission denied clarification and rehearing of the May 31 Order on Contested Settlement and accepted the July 30 Compliance Filing submitted in Docket No. ER18-2102-000.²⁵ Parties sought review of, among other things, the December 19 Order in the United States Court of Appeals for the District of Columbia Circuit (“D.C. Circuit”).²⁶

²¹ For the Mid-Atlantic Power Pathway (“MAPP”) and Potomac Appalachian Transmission Highline (“PATH”) projects identified as Canceled Projects in Tariff, Schedule 12-C, Appendix A, 50 percent of the Canceled Projects’ cost assignments are set forth in Tariff, Schedule 12-C, Appendix B.

²² Tariff, Schedule 12, section (b)(i)(A)(1).

²³ *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214, at PP 411-48 (2013) (“March 22 Order”).

²⁴ *PJM Interconnection, L.L.C.*, eTariff Compliance Filing for Schedule 12 and Schedule 12-Appendices, Docket No. ER18-2102-001 (July 30, 2018) (“July 30 Compliance Filing”).

²⁵ *PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,238 (2019) (“December 19 Order”).

²⁶ See *Linden VFT, LLC v. FERC*, No. 20-1033 (D.C. Cir. 2020); *Long Island Power Auth. v. FERC*, No. 20-1035 (D.C. Cir. 2020); *Linden VFT, LLC v. FERC*, No. 20-1273 (D.C. Cir. 2020) (consolidated).

2. *New Cost Allocation Methodology Effective February 1, 2013*

In the meantime, the PJM Transmission Owners, acting through the PJM Consolidated Transmission Owners Agreement (“CTOA”), filed,²⁷ and the Commission accepted,²⁸ in Docket No. ER13-90-000, revisions to Schedule 12 modifying the cost allocation methodologies relating to the assignment of costs of transmission system expansions and enhancements approved by PJM in its development of the RTEP. The revisions were filed by the PJM Transmission Owners in compliance with the regional cost allocation requirements of Order No. 1000.²⁹ The changes included cost allocation provisions for assigning cost responsibility for all RTEP transmission enhancements, including reliability and economic projects, replacement projects and high voltage direct current transmission projects.

The March 22 Order approved the hybrid cost allocation methodology for Regional Facilities and Necessary Lower Voltage Facilities, under which 50 percent of the costs of the facilities are allocated on a region-wide, postage stamp basis while the other 50 percent are allocated to specifically-identified beneficiaries under a solution-based DFAX methodology.³⁰ The region-wide, postage stamp allocations use the same annual load-ratio share methodology

²⁷ *Pub. Serv. Elec. & Gas Co.*, PJM Open Access Transmission Tariff Revisions to Modify Cost Allocation for PJM Required Transmission Enhancements, Docket No. ER13-90-000 (Oct. 11, 2012) (“October 11 Filing”).

²⁸ March 22 Order at PP 411-48.

²⁹ *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 136 FERC ¶ 61,051 (2011), *order on reh’g & clarification*, Order No. 1000-A, 139 FERC ¶ 61,132, *order on reh’g & clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff’d sub nom. S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014).

³⁰ Tariff, Schedule 12 provides different DFAX-based methodologies to identify and allocate costs to specific beneficiaries depending on whether the project is designed to address one or more reliability or operational adequacy and performance issues or to relieve one or more economic constraints. *See* PJM Tariff, Schedule 12(b)(i)(A)(2). The solution-based DFAX determined allocations for projects addressing reliability issues are set at the time the project is included in the RTEP, and are revisited annually beginning with the calendar year in which a Required Transmission Enhancement is scheduled to enter service, and thereafter annually at the beginning of each calendar year. *See* Tariff, Schedule 12, section (b)(iii)(H)(2).

accepted by the Commission in Opinion No. 494-A.³¹ These revisions only applied to the cost allocations for projects included in the RTEP on a prospective basis from February 1, 2013, and did not disturb the cost assignments or cost allocation methodologies used for projects previously included in the RTEP. To effectuate the March 22 Order, cost responsibility assignments for RTEP projects approved prior to the March 22 Order are located in Schedule 12-Appendix, and cost responsibility assignments for all RTEP projects approved after February 1, 2013 are located in Schedule 12-Appendix A.

The methodology for annually updating cost responsibility assignments on a region-wide, postage stamp basis for Regional Facilities and Necessary Lower Voltage Facilities included in Schedule 12-Appendix remained unchanged. Such methodology also applies to 50 percent of the costs of new Regional Facilities and Necessary Lower Voltage Facilities included in Schedule 12-Appendix A.³² For the other 50 percent of costs for Regional Facilities and Necessary Lower Voltage Facilities and 100 percent of costs for Lower Voltage Facilities included in Schedule 12-Appendix A, PJM uses its solution-based DFAX analysis to evaluate the relative use that load in each Zone and withdrawals by merchant transmission facilities are projected to make of the new facility.³³ Under this hybrid methodology, PJM updates the solution-based DFAX analysis annually beginning with the calendar year in which the new facility is scheduled to enter service in order to take into account changes in the relative use of the facility due to modifications of the grid, including new transmission facilities, generation additions and retirements, and the growth and distribution of load.³⁴

³¹ Opinion No. 494-A at P 92.

³² Tariff, Schedule 12, sections (b)(i)(A)(1)(a) and (b).

³³ October 11 Filing at 9.

³⁴ Tariff, Schedule 12, section (b)(iii)(H)(2).

3. *Cost Allocation Methodology for Merchant Transmission Facilities*

Specific to Merchant Transmission Facilities with Firm Transmission Withdrawal Rights (“Firm TWRs”), the Commission held in Opinion No. 503 issued on November 19, 2009, that Regional Facilities and Necessary Lower Voltage Facilities should be allocated to Merchant Transmission Facilities with Firm TWRs on an annual, load-ratio share basis using the Merchant Transmission Facility’s actual peak load in any given hour of the applicable year.³⁵ Thus, consistent with Opinion No. 503 and in accordance with Schedule 12 of the Tariff, updated cost responsibility assignments to Merchant Transmission Facilities for Regional Facilities and Necessary Lower Voltage Facilities are based on each facility’s annual peak load, up to the Firm TWRs set forth in the Merchant Transmission Facility’s respective interconnection service agreement. Updated cost responsibility assignments to Merchant Transmission Facilities for Lower Voltage Facilities are based on each facility’s Firm TWRs. Merchant Transmission Facilities with Non-Firm TWRs are not allocated RTEP charges for reliability projects.³⁶

As of 2017, there were three Merchant Transmission Facilities in PJM with Firm TWRs: (i) Neptune, (ii) Hudson, and (iii) East Coast Power, L.L.C., a/k/a Linden VFT. These Merchant Transmission Facilities were assigned cost responsibility for Regional Facilities and Necessary Lower Voltage Facilities based on their annual peak load up to the Firm TWRs set forth in their respective interconnection service agreements and for Lower Voltage Facilities based on their Firm TWRs. During 2017, Linden VFT and Hudson sought to convert their Firm TWRs to Non-Firm TWRs. On December 15, 2017, the Commission issued orders in Docket Nos. EL17-84³⁷

³⁵ *PJM Interconnection, L.L.C.*, Opinion No. 503, 129 FERC ¶ 61,161, at P 19 (2009).

³⁶ *Id.* at P 3 & n.2.

³⁷ *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,262 (2017).

and EL17-90³⁸ directing PJM to file revised interconnection service agreements converting the Firm TWRs for Linden VFT and Hudson to Non-Firm TWRs. In Docket Nos. ER18-579 (2018 Annual RTEP Update Filing)³⁹ and ER18-680,⁴⁰ PJM filed to implement the conversions by eliminating assignment of cost responsibility to Linden VFT and Hudson for RTEP projects included in Schedule 12-Appendix and Schedule 12-Appendix A. On March 5, 2018, the Commission accepted the annual RTEP updates filed in Docket No. ER18-579.⁴¹

On July 19, 2018, pursuant to Rule 206(g)(1) of the Commission's rules of practice and procedures,⁴² the Commission issued an order establishing settlement judge procedures,⁴³ which included, among other things, cost responsibility assignments specific to Linden VFT and Hudson. Settlement Judge Steven A. Glazer convened four settlement conferences in this matter.⁴⁴ On July 19, 2019, Settlement Judge Glazer declared an impasse in settlement proceedings.⁴⁵ By order dated July 22, 2019, Chief Judge Carmen A. Cintron terminated the settlement proceedings and returned the matter to the Commission for disposition.⁴⁶ Following termination of the settlement proceedings, the Commission issued, among other things, an order dated November 21, 2019, dismissing as moot New Jersey State Agencies' and PJM Transmission Owners' respective

³⁸ *PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,264 (2017).

³⁹ *PJM Interconnection, L.L.C.*, 2018 Annual RTEP Update Filing, Docket No. ER18-579-000 (Dec. 29, 2017), supplemented on January 3, 2018.

⁴⁰ *PJM Interconnection, L.L.C.*, Revisions to Schedule 12-Appendix and Schedule 12-Appendix A, Docket No. ER18-680-000 (Jan. 19, 2018).

⁴¹ *PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,197 (2018).

⁴² 18 C.F.R. § 206(g)(1).

⁴³ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 164 FERC ¶ 61,034 (2018).

⁴⁴ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, Status Report, Docket Nos. EL15-67-003, *et al.* (Apr. 23, 2019).

⁴⁵ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 168 FERC ¶ 63,005 (2019).

⁴⁶ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, Order of Chief Judge Terminating Settlement Judge Procedures, Docket Nos. EL15-67-003, *et al.* (July 22, 2019).

requests for rehearing of the Commission's July 19 Order for Docket Nos. EL15-67-004, EL17-68-001, EL17-84-002, EL17-90-002, and EL17-94-001.⁴⁷ On November 21, 2019, the Commission issued an order denying the Complaint filed by NYPA against PJM and the PJM Transmission Owners in Docket No. EL17-94-000 arguing that PJM was violating its Tariff by continuing to invoice RTEP transmission enhancement charges following Hudson's notice that it had relinquished its Firm TWRs.⁴⁸

By order dated February 20, 2020, the Commission denied a complaint filed by Linden VFT challenging certain revised cost responsibility assignments due to termination of Consolidated Edison Company of New York, Inc.'s ("Con Edison") transmission service agreements ("TSA").⁴⁹ On that same day,⁵⁰ the Commission accepted Tariff revisions to Schedule 12-Appendix and Schedule 12-Appendix A reallocating cost responsibility assignments due to the termination of the Con Edison's TSAs and denied requests for rehearing of the April 25, 2017 order⁵¹ filed in Docket Nos. ER17-950-000, 001, 002, and 003. Also on February 20, 2020, the Commission denied requests for rehearing filed in Docket Nos. EL15-67, ER15-2562, ER14-972, and EL15-18.⁵² On March 31, 2020, the Commission accepted in part and rejected in part

⁴⁷ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 169 FERC ¶61,116, at P 12 n.18 (2019).

⁴⁸ *N.Y. Power Auth. v. PJM Interconnection, L.L.C.*, 169 FERC ¶ 61,114 (2019) ("November 21 NYPA Complaint Order") (no request for rehearing of the November 21 NYPA Complaint Order was filed in the docket).

⁴⁹ *PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,123 (2020) ("2020 Linden VFT Complaint Order").

⁵⁰ *PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,124 (2020) ("February 20 Cost Allocation Order") (accepting revisions to cost responsibility assignments for transmission enhancements and expansions included in the RTEP due to the termination of the Con Edison's TSAs entered into between PJM and Con Edison).

⁵¹ *PJM Interconnection, L.L.C.*, 159 FERC ¶ 62,082 (2017); see *PJM Interconnection, L.L.C.*, 159 FERC ¶ 62,310 (2017) (delegated letter order on errata issued June 20, 2017).

⁵² *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,122 (2020).

PJM's compliance filing filed in Docket No. ER18-680-001 revising Merchant Transmission Facilities' cost allocation responsibility in Schedule 12-Appendix and Schedule 12-Appendix A.⁵³

Linden VFT filed a request for rehearing of the 2020 Linden VFT Complaint Order and February 20 Cost Allocation Order.⁵⁴ The NYPA and Hudson jointly sought rehearing of the 2020 Linden Complaint Order.⁵⁵ On August 28, 2020, the Commission issued an order addressing arguments raised on rehearing sustaining the results of both the February 2020 Cost Allocation Order and the 2020 Linden VFT Complaint Order.⁵⁶ To date, all requests for rehearing in this proceeding have been addressed by the Commission and the matters are currently pending before the D.C. Circuit.

4. *Cost Allocation for Form No. 715 Projects*

On March 26, 2015, the PJM Transmission Owners proposed to revise the Tariff to allocate 100 percent of costs for projects included in the RTEP solely to address individual transmission owner Form No. 715 planning criteria to the zone of the transmission owner who filed the Form No. 715 criteria.⁵⁷ By order dated May 22, 2015,⁵⁸ the Commission rejected the March 26 Filing finding the proposed cost allocation was inconsistent with Order No. 1000 cost allocation principles. The PJM Transmission Owners and Dayton Power and Light Company ("Dayton") filed a request for rehearing of the May 2015 Order. Following a November 12, 2015 technical

⁵³ *PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,295 (2020).

⁵⁴ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, Request for Rehearing of Linden VFT, LLC, Docket Nos. EL17-68-002, *et al.* (Mar. 23, 2020).

⁵⁵ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, Request for Rehearing of the New York Power Authority and Hudson Transmission Partners, LLC, Docket No. EL17-68-002 (Mar. 20, 2020).

⁵⁶ *PJM Interconnection, L.L.C.*, 172 FERC ¶ 61,176 (2020).

⁵⁷ *PJM Interconnection, L.L.C.*, Schedule 12 Revisions Regarding Allocation of Costs for Local Transmission Owner Projects, Docket No. ER15-1387-000 (Mar. 26, 2015) ("March 26 Filing").

⁵⁸ *PJM Interconnection, L.L.C.*, 151 FERC ¶ 61,172 (2015) ("May 2015 Order").

conference, the Commission issued an order on February 12, 2016, granting rehearing of the May 2015 Order and accepting the PJM Transmission Owners' Form No. 715 cost allocation methodology proposed in the March 26 Filing, effective May 25, 2015.⁵⁹ On December 9, 2016, the Commission denied rehearing of the February 2016 Order.⁶⁰ Dominion Energy Services, Inc. ("Dominion") and Old Dominion Electric Cooperative ("ODEC") filed petitions for review of the February 2016 Order at the D.C. Circuit.

On August 3, 2018, the D.C. Circuit found that the Commission acted arbitrarily and capriciously in approving the Form No. 715 cost allocation methodology, set aside the orders, and remanded the matter back to FERC for further proceedings.⁶¹ On October 16, 2018, the D.C. Circuit denied requests for panel hearing and/or clarification.

By order dated August 30, 2019,⁶² the Commission issued an order on remand that reversed its acceptance of the Form No. 715 cost allocation methodology proposed by the PJM Transmission Owners in their March 26 Filing and directed PJM to refile assignment of cost responsibility in Schedule 12-Appendix A for Form No. 715 Projects included in the RTEP between May 25, 2015 through August 30, 2019.⁶³ In compliance with the August 30 Order on Remand, the PJM Transmission Owners submitted revisions to Tariff, Schedule 12 replacing the

⁵⁹ *PJM Interconnection, L.L.C.*, 154 FERC ¶ 61,096 (2016) ("February 2016 Order").

⁶⁰ *PJM Interconnection, L.L.C.*, 157 FERC ¶ 61,191 (2016).

⁶¹ *Old Dominion Elec. Coop. v. FERC*, 898 F.3d 1254 (D.C. Cir. 2018).

⁶² *PJM Interconnection, L.L.C.*, 168 FERC ¶ 61,133 (2019) ("August 30 Order on Remand").

⁶³ On September 23, 2019, ODEC and Dominion filed a request for clarification and rehearing. *See PJM Interconnection, L.L.C.*, Request for Clarification or, in the Alternative, Rehearing of Old Dominion Electric Cooperative and Dominion Energy Services, Docket Nos. ER15-1387-004, *et al.* (Sept. 23, 2019). On September 30, 2019, Con Edison filed a request for rehearing of the August 30 Order on Remand. *See PJM Interconnection, L.L.C.*, Request for Rehearing of Consolidated Edison Company of New York, Inc., Docket Nos. ER15-1387-004 (Sept. 30, 2019).

Form No. 715 cost allocation methodology with a provision stating “Reserved.”⁶⁴ On September 30, 2019, Con Edison requested rehearing of the August 30 Order on Remand arguing that the August 30 Order’s decision to reallocate costs and grant refunds for low voltage projects is arbitrary, capricious, an abuse of discretion and unsupported by substantial evidence.⁶⁵

On October 29, 2019,⁶⁶ PJM submitted a filing in compliance with the August 30 Order on Remand to revise Tariff, Schedule 12-Appendix A for Form No. 715 Projects (“Remand Projects”) whose cost responsibility assignments changed as a result of the August 30 Order on Remand. On April 3, 2020, the Commission issued an order accepting the October 29 Compliance Filing.⁶⁷ On that same day, the Commission issued an order denying Con Edison’s and Linden VFT’s requests for rehearing and granting ODEC’s and Dominion’s request for clarification.⁶⁸ On May 4, 2020, requests for rehearing of the April 3 Order Accepting Compliance Filing were filed by PPL Electric

⁶⁴ *PJM Interconnection, L.L.C.*, PJM Open Access Transmission Tariff, Schedule 12 Compliance Filing, Docket Nos. ER15-1387-004, *et al.* (Sept. 27, 2019) (“Schedule 12 Compliance Filing”). On June 2, 2020, the PJM Transmission Owners submitted a compliance filing to revise and refile each subsequent version of the Schedule 12 Tariff record, starting from the record accepted after May 25, 2015, to show the removal of the Form No. 715 cost allocation methodology. *See PJM Interconnection, L.L.C.*, PJM Transmission Owners Compliance Filing, Docket No. ER15-1387-006, *et al.* (June 2, 2020).

⁶⁵ *PJM Interconnection, L.L.C.*, Request for Rehearing of Consolidated Edison Company of New York, Inc., Docket Nos. ER15-1387-004, *et al.* (Sept. 30, 2019).

⁶⁶ *PJM Interconnection, L.L.C.*, Form No. 715 Cost Allocation Compliance Filing, Docket No. ER15-1344-007 (Oct. 29, 2019) (“October 29 Compliance Filing”).

⁶⁷ *PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,013 (2020).

⁶⁸ *PJM Interconnection, L.L.C.*, 171 FERC ¶ 61,012 (2020) (“April 3 Rehearing Order”) (denying (i) Con Edison and Linden VFT’s arguments on rehearing that the Commission should have limited its response on remand solely to high-voltage facilities, which was the focus of the D.C. Circuit’s discussion and (ii) Con Edison’s rehearing request contending that it is inequitable for Con Edison to bear cost responsibility for the Sewaren Project, when Con Edison did not derive any benefit from the project and granting ODEC and Dominion’s request for clarification that the August 30 Order on Remand requires PJM to rebill parties with interest).

Utilities Corporation (“PPL”) and Dayton, jointly⁶⁹ and LIPA and Neptune, jointly.⁷⁰ Linden VFT filed a request for clarification of the April 3 Rehearing Order.⁷¹ On May 20, 2020, PJM filed a request for expedited consideration of all pending clarification and rehearing requests in this proceeding.⁷²

On August 3, 2020, the Commission issued an order denying clarification and addressing arguments raised on rehearing, finding that claims made constituted a collateral attack on the solution-based DFAX cost allocation methodology and the Remand Projects are not considered replacement projects pursuant to Schedule 12, section (b)(xiii).⁷³ The Commission also denied Linden VFT’s rehearing request to stay billing of refunds pending rehearing or appeal.⁷⁴ To date, all requests for rehearing in this proceeding have been addressed by the Commission and the matters are currently pending before the D.C. Circuit.

5. *Challenge to 2021 Annual RTEP Update*

On December 23, 2020,⁷⁵ PJM filed revisions to Tariff, Schedule 12-Appendix and Schedule 12-Appendix A to provide updated annual cost responsibility assignments for projects

⁶⁹ *PJM Interconnection, L.L.C.*, Request for Rehearing of PPL Electric Utilities Corporation and the Dayton Power and Light Company, Docket Nos. ER15-1344-008, *et al.* (May 4, 2020). On May 20, 2020, Con Edison requested leave to answer and answer requesting the Commission to deny PPL/Dayton’s rehearing request. *PJM Interconnection, L.L.C.*, Request for Expedited Consideration, Docket Nos. ER15-1344-008, *et al.* (May 20, 2020).

⁷⁰ *PJM Interconnection, L.L.C.*, Joint Request for Rehearing of the Long Island Power Authority and Neptune Regional Transmission System, LLC, Docket Nos. ER15-1344-008, *et al.* (May 4, 2020).

⁷¹ *PJM Interconnection, L.L.C.*, Request for Clarification of Linden VFT, LLC, Docket Nos. ER15-1344-008, *et al.* (May 4, 2020) (request for clarification of the April 3 Rehearing Order solely with respect to how PJM should implement the April 3 Rehearing Order).

⁷² *PJM Interconnection, L.L.C.*, Request for Expedited Consideration, Docket No. ER15-1344-008, *et al.* (May 20, 2020).

⁷³ *PJM Interconnection, L.L.C.*, 172 FERC ¶ 61,118, at PP 34-35 (2020).

⁷⁴ *Id.* at P 37.

⁷⁵ *PJM Interconnection, L.L.C.*, 2021 Annual RTEP Update Filing, Docket No. ER21-726-000 (December 23, 2020) (“2021 Annual RTEP Update Filing”).

included in the RTEP. On February 18, 2021, the Commission issued a deficiency letter seeking additional information concerning the proposed updates to cost responsibility assignments based on the solution-based DFAX method used for projects in the 2021 Annual RTEP Update Filing.⁷⁶ On March 22, 2021, PJM submitted its response to the February 18, 2021 deficiency letter. By order dated May 21, 2021, the Commission accepted the Tariff revisions filed in the 2021 Annual RTEP Update Filing, effective January 1, 2021.⁷⁷ On July 22, 2021, the Commission issued a notice denying request for rehearing of the May 21 Order by operation of law. On September 16, 2021, LIPA and Neptune filed a petition for review of the May 21 Order before the D.C. Circuit Court.

In addition to the Protest filed by LIPA and Neptune in 2021 Annual RTEP Update Filing docket, LIPA and Neptune filed a Complaint against PJM on December 31, 2020, challenging the application of netting procedure and *de minimis* rule to solution-based DFAX allocations.⁷⁸ On June 28, 2021, the Commission issued a notice establishing paper hearing procedures in the Neptune Complaint docket finding that the record would benefit from further information and established paper hearing procedures to develop a further record.

As of May 21, 2021, the Commission has accepted for filing all annual adjustments submitted by PJM from 2007 through 2020.⁷⁹

⁷⁶ See *PJM Interconnection, L.L.C.*, Deficiency Letter, Docket No. ER21-726-000 (Feb. 18, 2021) (seeking additional information in response to a Protest filed on behalf of LIPA and Neptune raising concern the 2021 Update Filing did not contain sufficient information to allow others, including the Commission, to evaluate the calculation and basis of the proposed cost responsibility assignments).

⁷⁷ *PJM Interconnection, L.L.C.*, 175 FERC ¶ 61,152 (2021) (“May 21 Order”).

⁷⁸ *Neptune Regional Transmission System, et al., v. PJM*, Formal Complaint by Long Island Power Authority (“LIPA”) and Neptune, Docket No. EL21-39-000 (Dec. 31, 2020) (“Neptune Complaint”).

⁷⁹ See *PJM Interconnection, L.L.C.*, 175 FERC ¶ 61,152 (2021); *PJM Interconnection, L.L.C.*, 170 FERC ¶ 61,156 (2020); December 19 Order (accepting the July 30 Compliance Filing); *PJM Interconnection, L.L.C.*, Compliance Filing, Docket No. ER19-745-001 (Mar. 27, 2019) (accepted by letter order dated June 11, 2019); *PJM Interconnection, L.L.C.*, 166 FERC ¶ 61,162 (2019) (directing further compliance to correct the ministerial error

B. Updated Annual Cost Responsibility Assignments

1. Updated Cost Responsibility Assignments for Regional Facilities and Necessary Lower Voltage Facilities under Schedule 12-Appendix and Schedule 12-Appendix A

Fifty percent of cost responsibility for Regional Facilities and Necessary Lower Voltage Facilities in Schedule 12-Appendix and Schedule 12-Appendix A will be allocated annually using the applicable peak loads of each Zone and Merchant Transmission Facility at the time of each Zone's and Merchant Transmission Facility's annual peak load from the 12-month period ending October 31 of the calendar year preceding the calendar year for which the annual cost responsibility allocation is determined.⁸⁰ Therefore, the updated cost responsibility assignments for Regional and Necessary Lower Voltage Facilities in the revised Tariff sections of Schedule 12-Appendix⁸¹ and Schedule 12-Appendix A (50 percent of costs) filed herein are based on each Zone's annual peak load from the 12-month period ending October 31, 2020.

2. Updates to Cost Responsibility Assignments Using Solution-Based DFAX Methodology for Covered Transmission Enhancements under Schedule 12-Appendix

Tariff, Schedule 12-C provides that 50 percent of cost responsibility for Covered Transmission Enhancements (with the exception of Canceled or Abandoned Projects identified as

regarding the NAEA Rock Spring, LLC transmission facilities); *PJM Interconnection, L.L.C.*, 162 FERC ¶ 61,197 (2018); *PJM Interconnection, L.L.C.*, 158 FERC ¶ 62,250 (2017), *order on reh'g and clarification*, 161 FERC ¶ 61,218 (2017); *PJM Interconnection, L.L.C.*, Docket No. ER16-676-000 (Dec. 31, 2015) (accepted by letter order dated February 24, 2016); *PJM Interconnection, L.L.C.*, Docket No. ER15-758-000 (Dec. 30, 2014) (accepted by letter order dated February 25, 2015); *PJM Interconnection, L.L.C.*, Docket No. ER14-909-000 (Dec. 31, 2013) (accepted by letter order dated February 12, 2014); *PJM Interconnection, L.L.C.*, Docket No. ER13-673-000 (Dec. 31, 2012) (accepted by letter order dated February 12, 2013); *PJM Interconnection, L.L.C.*, Docket No. ER12-745-000 (Dec. 30, 2011) (accepted by letter order dated February 7, 2012); *PJM Interconnection, L.L.C.*, Docket No. ER11-2578-000 (Dec. 30, 2010) (accepted by letter order dated February 1, 2011); *PJM Interconnection, L.L.C.*, Docket No. ER10-529-000 (Dec. 30, 2009) (accepted by letter order dated February 17, 2010); *PJM Interconnection, L.L.C.*, Docket No. ER09-484-000 (Dec. 30, 2008) (accepted by letter order dated February 20, 2009); and *PJM Interconnection, L.L.C.*, Docket Nos. ER08-837-000 (Apr. 16, 2008) (accepted by letter order dated July 10, 2008).

⁸⁰ PJM Tariff, Schedule 12, section (b)(i)(A)(1).

⁸¹ See *infra* at 5.

such in Schedule 12-C, Appendix A)⁸² shall be assigned based on the methodology set forth in Schedule 12, section (b)(i)(A)(2)(a), which is the solution-based DFAX methodology accepted by the Commission in the March 22 Order. PJM updates the solution-based DFAX analysis annually for such Covered Transmission Enhancements consistent with Tariff, Schedule 12, section (b)(iii)(H)(2).⁸³

3. *Updates to Cost Responsibility Assignments Using Solution-Based DFAX Methodology for Regional Facilities, Necessary Lower Voltage Facilities and Lower Voltage Facilities under Schedule 12-Appendix A*

Schedule 12 provides that solution-based DFAX determined cost responsibility assignments for Regional Facilities, Necessary Lower Voltage Facilities and Lower Voltage Facilities approved after February 1, 2013, and included in Schedule 12-Appendix A, are based on the analysis of flows on the new facility. The DFAX-determined allocations for projects addressing reliability issues are initially set at the time the project is included in the RTEP and are revised annually beginning with the calendar year in which a required transmission enhancement is scheduled to enter service and thereafter annually at the beginning of each calendar year.⁸⁴ PJM proposes revisions herein to update the solution-based DFAX, as appropriate for those specific Regional Facilities and Necessary Lower Voltage Facilities and Lower Voltage Facilities included in Schedule 12-Appendix A that are either in service or scheduled to enter service in 2022.

⁸² For Canceled or Abandoned Projects (MAPP and PATH projects), 50 percent of the cost responsibility is assigned to Responsible Customers using the cost responsibility assignments set forth in Tariff, Schedule 12-C, Appendix B, which are not updated annually. *See supra* note 20.

⁸³ The cost assignments for Canceled Projects in Tariff, Schedule 12-Appendix vary from the allocations set forth in Tariff, Schedule 12-C, Appendix B, effective prior to 2018, as PJM recalculated those allocations when it removed Hudson's and Linden VFT's cost responsibility once they replaced their Firm TWRs with Non-Firm TWRs, effective January 1, 2018.

C. Ministerial Clean-Up

In addition, as part of overall clean-up of Tariff, Schedule 12-Appendix and Tariff, Schedule 12-Appendix A, PJM is proposing a number of non-substantive, ministerial revisions as reflected in Attachments A and B. These minor revisions are primarily for consistency and to make minor linguistic or other changes.

II. WAIVER AND EFFECTIVE DATE

PJM requests waiver of the Commission's notice requirements to permit an effective date of January 1, 2022, for the revised Tariff sections filed herein. Good cause exists for granting this waiver because the amendments to Schedule 12-Appendix and Schedule 12-Appendix A reflect the updated annual cost responsibility assignments filed in accordance with Schedule 12 of the Tariff and do not contain any new upgrades, but merely update existing cost responsibility assignments.

III. DOCUMENTS ENCLOSED

PJM encloses the following:

1. This transmittal letter;
2. Attachment A – Revised sections of Schedule 12-Appendix and Schedule 12-Appendix A of the PJM Tariff (in redlined form); and
3. Attachment B – Revised sections of Schedule 12-Appendix and Schedule 12-Appendix A of the PJM Tariff (in clean form).

IV. CORRESPONDENCE AND COMMUNICATIONS

Correspondence and communications with respect to this filing should be sent to the following persons:

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V. SERVICE

PJM has served a copy of this filing on all PJM Members and on the affected state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,⁸⁵ PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link: <http://www.pjm.com/documents/fercmanuals/ferc-filings.aspx> with a specific link to the newly-filed document, and will send an email on the same date as this filing to all PJM Members and all state utility regulatory commissions in the PJM Region⁸⁶ alerting them that this filing has been made by PJM and is available by following such link. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within twenty-four hours of the filing. Also, a copy of this filing will be available on the Commission's eLibrary website located at the following link:

⁸⁵ See 18 C.F.R. §§ 35.2(e) and 385.201(f)(3).

⁸⁶ PJM already maintains, updates, and regularly uses email lists for all PJM Members and affected state commissions.

<http://www.ferc.gov/docs-filing/elibrary.aspx> in accordance with the Commission's regulations and Order No. 714.⁸⁷

Respectfully submitted,

By: /s/ Alejandro Bautista

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⁸⁷ *Electronic Tariff Filings*, Order No. 714, 124 FERC ¶ 61,270 (2008), *final rule*, Order No. 714-A, 147 FERC ¶ 61,115 (2014).

Attachment A

Schedule 12 – Appendices of the
PJM Open Access Transmission Tariff

(Marked / Redline Format)

SCHEDULE 12 – APPENDIX

(1) Atlantic City Electric Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0135	Build new Cumberland – Dennis 230 kV circuit which replaces existing Cumberland – Corson 138 kV	AEC (100%)
b0136	Install Dennis 230/138 kV transformer, Dennis 150 MVAR SVC and 50 MVAR capacitor	AEC (100%)
b0137	Build new Dennis – Corson 138 kV circuit	AEC (100%)
b0138	Install Cardiff 230/138 kV transformer and a 50 MVAR capacitor at Cardiff	AEC (100%)
b0139	Build new Cardiff – Lewis 138 kV circuit	AEC (100%)
b0140	Reconductor Laurel – Woodstown 69 kV	AEC (100%)
b0141	Reconductor Monroe – North Central 69 kV	AEC (100%)
b0265	Upgrade AE portion of Delco Tap – Mickleton 230 kV circuit	AEC (89.87%) / JCPL (9.48%) / NEPTUNE* (0.65%)
b0276	Replace both Monroe 230/69 kV transformers	AEC (91.28%) / PSEG (8.29%) / RE (0.23%) / ECP** (0.20%)
b0276.1	Upgrade a strand bus at Monroe to increase the rating of transformer #2	AEC (100%)
b0277	Install a second Cumberland 230/138 kV transformer	AEC (100%)
b0281.1	Install 35 MVAR capacitor at Lake Ave 69 kV substation	AEC (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Atlantic City Electric Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0281.2	Install 15 MVAR capacitor at Shipbottom 69 kV substation		AEC (100%)
b0281.3	Install 8 MVAR capacitors on the AE distribution system		AEC (100%)
b0142	Reconductor Landis – Minotola 138 kV		AEC (100%)
b0143	Reconductor Beckett – Paulsboro 69 kV		AEC (100%)
b0210	Install a new 500/230 kV substation in AEC area. The high side will be tapped on the Salem - East Windsor 500 kV circuit and the low side will be tapped on the Churchtown - Cumberland 230 kV circuit.		Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%) DFAX Allocation: AEC (80.73 78.34%) / JCPL (19.27 21.66%)
b0210.1	Orchard – Cumberland – Install second 230 kV line		AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)††
b0210.2	Install a new 500/230 kV substation in AEC area, the high side will be tapped on the Salem - East Windsor 500 kV circuit and the low side will be tapped on the Churchtown - Cumberland 230 kV circuit.		AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)††

* Neptune Regional Transmission System, LLC

~~**East Coast Power, L.L.C.~~

~~†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities
associated with the project~~

~~††Cost allocations associated with below 500 kV elements of the project~~

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-1.

Atlantic City Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0211	Reconductor Union - Corson 138_kV circuit	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)
b0212	Substation upgrades at Union and Corson 138_kV	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)
b0214	Install 50 MVAR capacitor at Cardiff 230_kV substation	AEC (100%)
b0431	Monroe Upgrade New Freedom strand bus	AEC (100%)
b0576	Move the Monroe 230/69 kV to Mickleton	AEC (100%)
b0744	Upgrade a strand bus at Mill 138 kV	AEC (100%)
b0871	Install 35 MVAR capacitor at Motts Farm 69 kV	AEC (100%)
b1072	Modify the existing EMS load shedding scheme at Cedar to additionally sense the loss of both Cedar 230/69 kV transformers and shed load accordingly	AEC (100%)
b1127	Build a new Lincoln-Minitola 138 kV line	AEC (100%)
b1195.1	Upgrade the Corson sub T2 terminal	AEC (100%)
b1195.2	Upgrade the Corson sub T1 terminal	AEC (100%)

* Neptune Regional Transmission System, LLC

Atlantic City Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1244	Install 10 MVAR capacitor at Peermont 69 kV substation	AEC (100%)
b1245	Rebuild the Newport-South Millville 69 kV line	AEC (100%)
b1250	Reconductor the Monroe – Glassboro 69 kV	AEC (100%)
b1250.1	Upgrade substation equipment at Glassboro	AEC (100%)
b1280	Sherman: Upgrade 138/69 kV transformers	AEC (100%)
b1396	Replace Lewis 138 kV breaker ‘L’	AEC (100%)
b1398.5	Reconductor the existing Mickleton – Gloucester 230 kV circuit (AE portion)	JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1598	Reconductor Sherman Av – Carl’s Corner 69 kV circuit	AEC (100%)
b1599	Replace terminal equipments at Central North 69 kV substation	AEC (100%)
b1600	Upgrade the Mill T2 138/69 kV transformer	AEC (88.83%) / JCPL (4.74%) / HTP*** (0.20%) / ECP** (0.22%) / PSEG (5.78%) / RE (0.23%)
b2157	Re-build 5.3 miles of the Corson - Tuckahoe 69 kV circuit	AEC (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-1.

SCHEDULE 12 – APPENDIX

(2) Baltimore Gas and Electric Company

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0152	Add (2) 230 kV Breakers at High Ridge and install two Northwest 230 kV 120 MVAR capacitors		BGE (100%)
b0244	Install a 4 th Waugh Chapel 500/230 kV transformer, terminate the transformer in a new 500 kV bay and operate the existing in-service spare transformer on standby		BGE (85.56%) / ME (0.83%) / PEPSCO (13.61%)
b0298	Replace both Conastone 500/230 kV transformers with larger transformers	As specified in Attachment H-2A, Attachment 7, the Transmission Enhancement Charge Worksheet	BGE (75.85%) / Dominion (11.54%) / ME (4.73%) / PEPSCO (7.88%)
b0298.1	Replace Conastone 230 kV breaker 500-3/2323		BGE (100%)
b0474	Add a fourth 230/115 kV transformer, two 230 kV circuit breakers and a 115 kV breaker at Waugh Chapel		BGE (100%)
b0475	Create two 230 kV ring buses at North West, add two 230/-115 kV transformers at North West and create a new 115 kV station at North West		BGE (100%)
b0476	Rebuild High Ridge 230 kV substation to Breaker and Half configuration		BGE (100%)
b0477	Replace the Waugh Chapel 500/230 kV transformer #1 with three single phase transformers		BGE (90.56%) / ME (1.51%) / PECO (.92%) / PEPSCO (4.01%) / PPL (3.00%)

~~* Neptune Regional Transmission System, LLC~~

~~** East Coast Power, L.L.C.~~

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0497	Install a second Conastone – Graceton 230 kV circuit		AEC (9.00%) / DPL (16.85%) / JCPL (9.64%) / ME (1.48%) / NEPTUNE* (0.95%) / PECO (30.79%) / PPL (16.41%) / ECP** (0.29%) / PSEG (14.07%) / RE (0.52%)
b0497.1	Replace Conastone 230 kV breaker #4		BGE (100%)
b0497.2	Replace Conastone 230 kV breaker #7		BGE (100%)
b0500.2	Replace wavetrap and raise operating temperature on Conastone – Otter Creek 230 kV line to 165 deg		AEC (6.27%) / DPL (8.65 %) / JCPL (14.54%) / ME (10.59%) / NEPTUNE* (1.37%) / PECO (15.66%) / PPL (21.02%) / ECP** (0.57%) / PSEG (20.56%) / RE (0.77%)
b0512.33	MAPP Project Install new Hallowing Point – Calvert Cliffs 500 kV circuit and associated substation work at Calvert Cliffs substation		AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0512.43	MAPP Project Install new Hallowing Point – Calvert Cliffs 500 kV circuit and associated substation work at Calvert Cliffs substation		AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b0729	Rebuild both Harford – Perryman 110615-A and 110616-A 115 kV circuits		BGE (100%)
b0749	Replace 230 kV breaker and associated CT's at Riverside 230 kV on 2345 line; replace all dead-end structures at Brandon Shores, Hawkins Point, Sollers Point and Riverside; Install a second conductor per phase on the spans entering each station		BGE (100%)

* Neptune Regional Transmission System, LLC

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0795	Install a 115 kV breaker at Chesaco Park	BGE (100%)
b0796	Install 2, 115 kV breakers at Gwynnbrook	BGE (100%)
b0819	Remove line drop limitations at the substation terminations for Gwynnbrook – Mays Chapel 115 kV	BGE (100%)
b0820	Remove line drop limitations at the substation terminations and replace switch for Delight – Gwynnbrook 115 kV	BGE (100%)
b0821	Remove line drop limitations at the substation terminations for Northwest – Delight 115 kV	BGE (100%)
b0822	Remove line drop limitations at the substation terminations for Gwynnbrook – Sudbrook 115 kV	BGE (100%)
b0823	Remove line drop limitations at the substation terminations for Windy Edge – Texas 115 kV	BGE (100%)
b0824	Remove line drop limitations at the substation terminations for Granite – Harrisonville 115 kV	BGE (100%)
b0825	Remove line drop limitations at the substation terminations for Harrison – Dolefield 115 kV	BGE (100%)

~~* Neptune Regional Transmission System, LLC~~

~~**East Coast Power, L.L.C.~~

Baltimore Gas and Electric Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0826	Remove line drop limitations at the substation terminations for Riverside – East Point 115 kV		BGE (100%)
b0827	Install an SPS for one year to trip a Mays Chapel 115 kV breaker one line 110579 for line overloads 110509		BGE (100%)
b0828	Disable the HS throwover at Harrisonville for one year		BGE (100%)
b0870	Rebuild each line (0.2 miles each) to increase the normal rating to 968 MVA and the emergency rating to 1227 MVA		BGE (100%)
b0906	Increase contact parting time on Wagner 115 kV breaker 32-3/2		BGE (100%)
b0907	Increase contact parting time on Wagner 115 kV breaker 34-1/3		BGE (100%)
b1016	Rebuild Graceton - Bagley 230 kV as double circuit line using 1590 ACSR. Terminate new line at Graceton with a new circuit breaker.		APS (2.02%) / BGE (75.22%) / Dominion (16.10%) / PEPCO (6.66%)
b1055	Upgrade wire drops at Center 115 kV on the Center - Westport 115 kV circuit		BGE (100%)
b1029	Upgrade wire sections at Wagner on both 110534 and 110535 115 kV circuits. Reconfigure Lipins Corner substation		BGE (100%)

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-2.

Baltimore Gas and Electric Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1030	Move the Hillen Rd substation from circuits 110507/110508 to circuits 110505/110506		BGE (100%)
b1031	Replace wire sections on Westport - Pumphrey 115 kV circuits #110521, 110524, 110525, and 110526		BGE (100%)
b1083	Upgrade wire sections of the Mays Chapel – Mt Washington circuits (110701 and 110703) to improve the rating to 260/300 SN/SE MVA		BGE (100%)
b1084	Extend circuit 110570 from Deer Park to Northwest, and retire the section of circuit 110560 from Deer Park to Deer Park tap and retire existing Deer Park Breaker		BGE (100%)
b1085	Upgrade substation wire conductors at Lipins Corner to improve the rating of Solley-Lipins Corner sections of circuits 110534 and 110535 to 275/311 MVA SN/SE		BGE (100%)
b1086	Build a new 115 kV switching station between Orchard St. and Monument St.		BGE (100%)
b1175	Apply SPS at Mt. Washington to delay load pick-up for one outage and for the other outage temporarily drop load		BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1176	Transfer 6 MW of load from Mt. Washington – East Towson	BGE (100%)
b1251	Build a second Raphael – Bagley 230 kV	APS (4.42%) / BGE (66.95%) / ComEd (4.12%) / Dayton (0.49%) / Dominion (18.76%) / PENELEC (0.05%) / PEPCO (5.21%)
b1251.1	Re-build the existing Raphael – Bagley 230 kV	APS (4.42%) / BGE (66.95%) / ComEd (4.12%) / Dayton (0.49%) / Dominion (18.76%) / PENELEC (0.05%) / PEPCO (5.21%)
b1252	Upgrade terminal equipment (remove terminal limitation at Pumphrey Tap to bring the circuit to 790N/941E	BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1253	Replace the existing Northeast 230/115 kV transformer #3 with 500 MVA	BGE (100%)
b1253.1	Replace the Northeast 230 kV breaker '2317/315'	BGE (100%)
b1253.2	Revise reclosing on Windy Edge 115 kV breaker '110515'	BGE (100%)
b1253.3	Revise reclosing on Windy Edge 115 kV breaker '110516'	BGE (100%)
b1253.4	Revise reclosing on Windy Edge 115 kV breaker '110517'	BGE (100%)
b1254	Build a new 500/230 kV substation (Emory Grove)	APS (4.07%) / BGE (53.19%) / ComEd (3.71%) / Dayton (0.50%) / Dominion (16.44%) / PENELEC (0.59%) / PEPCO (21.50%)
b1254.1	Bundle the Emory – North West 230 kV circuits	BGE (100%)
b1267	Rebuild existing Erdman 115 kV substation to a dual ring-bus configuration to enable termination of new circuits	BGE (100%)
b1267.1	Construct 115 kV double circuit underground line from existing Coldspring to Erdman substation	BGE (100%)
b1267.2	Replace Mays Chapel 115 kV breaker '110515A'	BGE (100%)
b1267.3	Replace Mays Chapel 115 kV breaker '110579C'	BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1544 Advance the baseline upgrade B1252 to upgrade terminal equipment removing terminal limitation at Pumphrey Tap on BGE 230 kV circuit 2332-A		BGE (100%)
b1545 Upgrade terminal equipment at both Brandon Shores and Waugh Chapel removing terminal limitation on BGE 230 kV circuit 2343		BGE (100%)
b1546 Upgrade terminal equipment at Graceton removing terminal limitation on BGE portion of the 230 kV Graceton – Cooper circuit 2343		BGE (100%)
b1583 Replace Hazelwood 115 kV breaker '110602'		BGE (100%)
b1584 Replace Hazelwood 115 kV breaker '110604'		BGE (100%)
b1606.1 Moving the station supply connections of the Hazelwood 115/13 kV station		BGE (100%)
b1606.2 Installing 115 kV tie breakers at Melvale		BGE (100%)
b1785 Revise the reclosing for Pumphrey 115 kV breaker '110521 DR'		BGE (100%)
b1786 Revise the reclosing for Pumphrey 115 kV breaker '110526 DR'		BGE (100%)
b1789 Revise the reclosing for Pumphrey 115 kV breaker '110524DR'		BGE (100%)
b1806 Rebuild Wagner 115 kV substation to 80 kA		BGE (100%)

SCHEDULE 12 – APPENDIX

(3) Delmarva Power & Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0144.1	Build new Red Lion – Milford – Indian River 230 kV circuit	DPL (100%)
b0144.2	Indian River Sub – 230 kV Terminal Position	DPL (100%)
b0144.3	Red Lion Sub – 230 kV Terminal Position	DPL (100%)
b0144.4	Milford Sub – (2) 230 kV Terminal Positions	DPL (100%)
b0144.5	Indian River – 138 kV Transmission Line to AT-20	DPL (100%)
b0144.6	Indian River – 138 & 69 kV Transmission Ckts. Undergrounding	DPL (100%)
b0144.7	Indian River – (2) 230 kV bus ties	DPL (100%)
b0148	Re-rate Glasgow – Mt. Pleasant 138 kV and North Seaford – South Harrington 138 kV	DPL (100%)
b0149	Complete structure work to increase rating of Cheswold – Jones REA 138 kV	DPL (100%)
b0221	Replace disconnect switch on Edgewood-N. Salisbury 69 kV	DPL (100%)
b0241.1	Keeny Sub – Replace overstressed breakers	DPL (100%)
b0241.2	Edgemoor Sub – Replace overstressed breakers	DPL (100%)
b0241.3	Red Lion Sub – Substation reconfigure to provide for second Red Lion 500/230 kV transformer	DPL (84.5%) / PECO (15.5%)
b0261	Replace 1200 Amp disconnect switch on the Red Lion – Reybold 138 kV circuit	DPL (100%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0262	Reconductor 0.5 miles of Christiana – Edgemoor 138 kV		DPL (100%)
b0263	Replace 1200 Amp wavetrap at Indian River on the Indian River – Frankford 138 kV line		DPL (100%)
b0272.1	Replace line trap and disconnect switch at Keeney 500 kV substation – 5025 Line Terminal Upgrade		<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (17.53%) / BGE (1.84%) / DPL (43.46%) / PECO (18.79%) / PEPCO (1.52%) / PPL (13.73%) / PSEG (3.01%) / RE (0.12%)</p>
b0282	Install 46 MVAR capacitors on the DPL distribution system		DPL (100%)
b0291	Replace 1600A disconnect switch at Harmony 230 kV and for the Harmony – Edgemoor 230 kV circuit, increase the operating temperature of the		DPL (100%)

	conductor		
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*Neptune Regional Transmission System, LLC

~~**East Coast Power, LLC~~

~~***Hudson Transmission Partners, LLC~~

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0295	Raise conductor temperature of North Seaford – Pine Street – Dupont Seaford		DPL (100%)
b0296	Rehoboth/Cedar Neck Tap (6733-2) upgrade		DPL (100%)
b0320	Create a new 230 kV station that splits the 2 nd Milford to Indian River 230 kV line, add a 230/69 kV transformer, and run a new 69 kV line down to Harbeson 69 kV		DPL (100%)
b0382	Cambridge Sub – Close through to Todd Substation		DPL (100%)
b0383	Wye Mills AT-1 and AT-2 138/69 kV Replacements		DPL (100%)
b0384	Replace Indian River AT-20 (400 MVA)		DPL (100%)
b0385	Oak Hall to New Church (13765) Upgrade		DPL (100%)
b0386	Cheswold/Kent (6768) Rebuild		DPL (100%)
b0387	N. Seaford – Add a 2 nd 138/69 kV autotransformer		DPL (100%)
b0388	Hallwood/Parksley (6790-2) Upgrade		DPL (100%)
b0389	Indian River AT-1 and AT-2 138/69 kV Replacements		DPL (100%)
b0390	Rehoboth/Lewes (6751-1 and 6751-2) Upgrade		DPL (100%)
b0391	Kent/New Meredith (6704-2) Upgrade		DPL (100%)
b0392	East New Market Sub – Establish a 69 kV Bus Arrangement		DPL (100%)
b0415	Increase the temperature ratings of the Edgemoor – Christiana – New Castle 138 kV by replacing six transmission poles		DPL (100%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0437	Spare Keeney 500/230 kV transformer		DPL (100%)
b0441	Additional spare Keeney 500/230 kV transformer		DPL (100%)
b0480	Rebuild Lank – Five Points 69 kV		DPL (100%)
b0481	Replace wave trap at Indian River 138 kV on the Omar – Indian River 138 kV circuit		DPL (100%)
b0482	Rebuild Millsboro – Zoar REA 69 kV		DPL (100%)
b0483	Replace Church 138/69 kV transformer and add two breakers		DPL (100%)
b0483.1	Build Oak Hall – Wattsville 138 kV line		DPL (100%)
b0483.2	Add 138/69 kV transformer at Wattsville		DPL (100%)
b0483.3	Establish 138 kV bus position at Oak Hall		DPL (100%)
b0484	Re-tension Worcester – Berlin 69 kV for 125°C		DPL (100%)
b0485	Re-tension Taylor – North Seaford 69 kV for 125°C		DPL (100%)
b0494.1	Install a 2 nd Red Lion 230/138 kV		DPL (100%)
b0494.2	Hares Corner – Relay Improvement		DPL (100%)
b0494.3	Reybold – Relay Improvement		DPL (100%)
b0494.4	New Castle – Relay Improvement		DPL (100%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPSCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0513	Rebuild the Ocean Bay – Maridel 69 kV line	DPL (100%)
b0527	Replace existing 12 MVAR capacitor at Bethany with a 30 MVAR capacitor	DPL (100%)
b0528	Replace existing 69/12 kV transformer at Bethany with a 138/12 kV transformer	DPL (100%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0529	Install an additional 8.4 MVAR capacitor at Grasonville 69 K kV	DPL (100%)
b0530	Replace existing 12 MVAR capacitor at Wye Mills with a 30 MVAR capacitor	DPL (100%)
b0531	Create a four breaker 138 kV ring bus at Wye Mills and add a second 138/69 kV transformer	DPL (100%)
b0566	Rebuild the Trappe Tap – Todd 69 kV line	DPL (100%)
b0567	Rebuild the Mt. Pleasant – Townsend 138 kV line	DPL (100%)
b0568	Install a third Indian River 230/138 kV transformer	DPL (100%)
b0725	Add a third Steele 230/138 kV transformer	DPL (100%)
b0732	Rebuild Vaugh – Wells 69 kV	DPL (100%)
b0733	Add a second 230/138 kV transformer at Harmony	DPL (97.06%) / PECO (2.94%)
b0734	Rebuild Church – Steele 138 kV	DPL (100%)
b0735	Rebuild Indian River – Omar – Bethany 138 kV	DPL (100%)
b0736	Rebuild Dupont Edgemoor – Edgemoor – Silverside 69 kV	DPL (69.46%) / PECO (17.25%) / ECP** (0.27%) / PSEG (12.53%) / RE (0.49%)
b0737	Build a new Indian River – Bishop 138 kV line	DPL (100%)

**East Coast Power, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0750	Convert 138 kV network path from Vienna – Loretto – Piney - Grove to 230 kV, add 230/138 kV transformer to Loretto 230 kV	DPL (100%)
b0751	Add two additional breakers at Keeney 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: DPL (100%)</p>
b0752	Replace two circuit breakers to bring the emergency rating up to 348 MVA	DPL (100%)
b0753	Add a second Loretto 230/138 kV transformer	DPL (100%)
b0754	Rebuild 10 miles of Glasgow to Mt. Pleasant 138 kV line to bring the normal rating to 298 MVA and the emergency rating to 333 MVA	DPL (100%)
b0792	Reconfigure Cecil Sub into 230 and 138 kV ring buses, add a 230/138 kV transformer, and operate the	DPL (100%)

	34.5 kV bus normally open		
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*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0873	Build 2nd Glasgow-Mt Pleasant 138 kV line	DPL (100%)
b0874	Reconfigure Brandywine substation	DPL (100%)
b0876	Install 50 MVAR SVC at 138th St 138 kV	DPL (100%)
b0877	Build a 2nd Vienna-Steele 230 kV line	DPL (100%)
b0879.1	Apply a special protection scheme (load drop at Stevensville and Grasonville)	DPL (100%)
b1246	Re-build the Townsend – Church 138 kV circuit	DPL (100%)
b1247	Re-build the Glasgow – Cecil 138 kV circuit	DPL (72.06%) / PECO (27.94%)
b1248	Install two 15 MVAR capacitor at Loretto 69 kV	DPL (100%)
b1249	Reconfigure the existing Sussex 69 kV capacitor	DPL (100%)
b1603	Upgrade 19 miles conductor of the Wattsville - Signepost - Stockton - Kenney 69 kV circuit	DPL (100%)
b1604	Replace CT at Reybold 138 kV substation	DPL (100%)
b1723	Replace strand bus and disconnect switch at Glasgow 138 kV substation	DPL (100%)

~~* Neptune Regional Transmission System, LLC~~

~~** East Coast Power, LLC~~

~~*** Hudson Transmission Partners, LLC~~

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-3.

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1899.1 Install new variable reactors at Indian River and Nelson 138 kV		DPL (100%)
b1899.2 Install new variable reactors at Cedar Creek 230 kV		DPL (100%)
b1899.3 Install new variable reactors at New Castle 138 kV and Easton 69 kV		DPL (100%)

SCHEDULE 12 – APPENDIX

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0215	Install 230 kV ^{kV} series reactor and 2- 100_MVAR PLC switched capacitors at Hunterstown	AEC (6.71%) / APS (3.97%) / DPL (9.10%) / JCPL (16.85%) / ME (10.53%) / NEPTUNE* (1.69%) / PECO (19.00%) / PPL (7.55%) / PSEG (22.67%) / RE (0.34%) / UGI (0.95%) / ECP** (0.64%)
b0404.1	Replace South Reading 230 kV breaker 107252	ME (100%)
b0404.2	Replace South Reading 230 kV breaker 100652	ME (100%)
b0575.1	Rebuild Hunterstown – Texas Eastern Tap 115 kV	ME (100%)
b0575.2	Rebuild Texas Eastern Tap – Gardners 115 kV and associated upgrades at Gardners including disconnect switches	ME (100%)
b0650	Reconductor Jackson – JE Baker – Taxville 115 kV line	ME (100%)
b0652	Install bus tie circuit breaker on Yorkana 115 kV bus and expand the Yorkana 230 kV ring bus by one breaker so that the Yorkana 230/115 kV banks 1, 3, and 4 cannot be lost for either B-14 breaker fault or a 230 kV line or bank fault with a stuck breaker	ME (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0653	Construct a 230 kV Bernville station by tapping the North Temple – North Lebanon 230 kV line. Install a 230/69 kV transformer at existing Bernville 69 kV station		ME (100%)
b1000	Replace Portland 115 kV breaker '95312'		ME (100%)
b1001	Replace Portland 115 kV breaker '92712'		ME (100%)
b1002	Replace Hunterstown 115 kV breaker '96392'		ME (100%)
b1003	Replace Hunterstown 115 kV breaker '96292'		ME (100%)
b1004	Replace Hunterstown 115 kV breaker '99192'		ME (100%)
b1061	Replace existing Yorkana 230/115 kV transformer banks 1 and 4 with a single, larger transformer similar to transformer bank #3		ME (100%)
b1061.1	Replace the Yorkana 115 kV breaker '97282'		ME (100%)
b1061.2	Replace the Yorkana 115 kV breaker 'B282'		ME (100%)
b1302	Replace the limiting bus conductor and wave trap at the Jackson 115 kV terminal of the Jackson – JE Baker Tap 115 kV line		ME (100%)
b1365	Reconductor the Middletown – Collins 115 kV (975) line 0.32 miles of 336 ACSR		ME (100%)

~~* Neptune Regional Transmission System, LLC~~

~~**East Coast Power, L.L.C.~~

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b1366	Reconductor the Collins – Cly – Newberry 115 kV (975) line 5 miles with 795 ACSR		ME (100%)
b1727	Reconductor 2.4 miles of existing 556 and 795 ACSR from Harley Davidson to Pleasureville 115 kV with 795 ACSS to raise the ratings		ME (100%)
b1800	Install a 500 MVAR SVC at the existing Hunterstown 500 kV substation		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: DPL (45.54<u>31.58</u>%) / ME (54.46<u>34.84</u>%) / PECO (<u>33.58</u>%)</p>
b1801	Build a 250 MVAR SVC at Altoona 230 kV		AEC (6.47%) / AEP (2.58%) / APS (6.88%) / BGE (6.57%) / DPL (12.39%) / Dominion (14.89%) / JCPL (8.14%) /

			ME (6.21%) / NEPTUNE* (0.82%) / PECO (21.56%) / PPL (4.89%) / PSEG (8.18%) / RE (0.33%) / ECP** (0.09%)
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*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements Customer(s)	Annual Revenue Requirement	Responsible
b1816.5	Replace SCCIR (Sub-conductor) at Hunterstown Substation on the No. 1, 230/115 kV transformer	ME (100%)
b1999	Replace limiting wave trap, circuit breaker, substation conductor, relay and current transformer components at Northwood	ME (100%)
b2000	Replace limiting wave trap on the Glendon - Hosensack line	ME (100%)
b2001	Replace limiting circuit breaker and substation conductor transformer components at Portland 230kV	ME (100%)
b2002	Northwood 230/115 kV Transformer upgrade	ME (100%)
b2023	Construct a new North Temple - Riverview - Cartech 69 kV line (4.7 miles) with 795 ACSR	ME (100%)
b2024	Upgrade 4/0 substation conductors at Middletown 69 kV	ME (100%)
b2025	Upgrade 4/0 and 350 Cu substation conductors at the Middletown Junction terminal of the Middletown Junction - Wood Street Tap 69 kV line	ME (100%)
b2026	Upgrade an OC protection relay at the Baldy 69 kV substation	ME (100%)
b2148	Install a 115 kV 28.8 MVAR capacitor at Pleasureville substation	ME (100%)

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2149	Upgrade substation riser on the Smith St. - York Inc. 115 kV line		ME (100%)
b2150	Upgrade York Haven structure 115 kV bus conductor on Middletown Jct. - Zions View 115 kV		ME (100%)

~~* Neptune Regional Transmission System, LLC~~

~~**East Coast Power, L.L.C.~~

SCHEDULE 12 – APPENDIX

(7) Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0284.1	Build 500 kV substation in PENELEC – Tap the Keystone – Juniata and Conemaugh – Juniata 500 kV, connect the circuits with a breaker and half scheme, and install new 400 MVAR capacitor	AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)
b0284.3	Replace wave trap and upgrade a bus section at Keystone 500 kV – on the Keystone – Airydale 500 kV	AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)

* Neptune Regional Transmission System, LLC

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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0285.1	Replace wave trap at Keystone 500 kV – on the Keystone – Conemaugh 500 kV	AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b0285.2	Replace wave trap and relay at Conemaugh 500 kV – on the Conemaugh – Keystone 500 kV	AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)

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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0349	Upgrade Rolling Meadows-Gore Jct 115 kV		PENELEC (100%)
b0360	Construction of a ring bus on the 345 kV side of Wayne substation		PENELEC (100%)
b0365	Add a 50 MVAR, 230 kV cap bank at Altoona 230 kV		PENELEC (100%)
b0369	Install 100 MVAR Dynamic Reactive Device at Airydale 500 kV substation		AEC (1.7 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b0370	Install 500 MVAR Dynamic Reactive Device at Airydale 500 kV substation		AEC (1.7 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) /

			OVEC (0.07%) / PECO (5.295.39 %) / PENELEC (1.891.84 %) / PEPCO (3.823.71 %) / PPL (4.724.78 %) / PSEG (6.216.40 %) / RE (0.260.27 %)
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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0376	Install 300 MVAR capacitor at Conemaugh 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.74<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.58<u>5.89</u>%) / BGE (18.21<u>14.03</u>%) / JCPL (18.24<u>19.26</u>%) / ME (11.07<u>10.43</u>%) / NEPTUNE* (2.03<u>2.13</u>%) / PECO (18.80<u>20.70</u>%) / PSEG (25.07<u>26.53</u>%) / RE (1.00<u>1.03</u>%)</p>
b0442	Spare Keystone 500/230 kV transformer	PENELEC (100%)
b0515	Replace Lewistown circuit breaker 1LY Yeagertown	PENELEC (100%)
b0516	Replace Lewistown circuit breaker 2LY Yeagertown	PENELEC (100%)
b0517	Replace Shawville bus section circuit breaker	PENELEC (100%)

b0518	Replace Homer City circuit breaker 201 Johnstown		PENELEC (100%)
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**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0519	Replace Keystone circuit breaker 4 Transformer - 20	PENELEC (100%)
b0549	Install 250 MVAR capacitor at Keystone 500 kV	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (5.555.52%) / BGE (22.1616.52%) / DL (0.04%) / DPL (5.56%) / JCPL (16.4416.64%) / ME (12.4511.08%) / NEPTUNE* (1.831.84%) / PECO (18.7519.45%) / PSEG (21.9522.48%) / RE (0.87%)</p>
b0550	Install 25 MVAR capacitor at Lewis Run 115 kV substation	AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)

b0551	Install 25 MVAR capacitor at Saxton 115 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0552 Install 50 MVAR capacitor at Altoona 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0553 Install 50 MVAR capacitor at Raystown 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0555 Install 100 MVAR capacitor at Johnstown 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0556 Install 50 MVAR capacitor at Grover 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0557 Install 75 MVAR capacitor at East Towanda 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0563 Install 25 MVAR capacitor at Farmers Valley 115 kV substation		PENELEC (100%)
b0564 Install 10 MVAR capacitor at Ridgeway 115 kV substation		PENELEC (100%)

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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0654	Reconfigure the Cambria Slope 115 kV and Wilmore Junction 115 kV stations to eliminate Wilmore Junction 115 kV 3-terminal line		PENELEC (100%)
b0655	Reconfigure and expand the Glade 230 kV ring bus to eliminate the Glade Tap 230 kV 3-terminal line		PENELEC (100%)
b0656	Add three breakers to form a ring bus at Altoona 230 kV		PENELEC (100%)
b0794	Upgrade the Homer City 230 kV breaker 'Pierce Road'		PENELEC (100%)
b1005	Replace Glory 115 kV breaker '#7 XFMR'		PENELEC (100%)
b1006	Replace Shawville 115 kV breaker 'NO.14 XFMR'		PENELEC (100%)
b1007	Replace Shawville 115 kV breaker 'NO.15 XFMR'		PENELEC (100%)
b1008	Replace Shawville 115 kV breaker '#1B XFMR'		PENELEC (100%)
b1009	Replace Shawville 115 kV breaker '#2B XFMR'		PENELEC (100%)
b1010	Replace Shawville 115 kV breaker 'Dubois'		PENELEC (100%)

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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1011	Replace Shawville 115 kV breaker 'Philipsburg'	PENELEC (100%)
b1012	Replace Shawville 115 kV breaker 'Garman'	PENELEC (100%)
b1059	Replace a CRS relay at Hooversville 115 kV station	PENELEC (100%)
b1060	Replace a CRS relay at Rachel Hill 115 kV station	PENELEC (100%)
b1153	Upgrade Conemaugh 500/230 kV transformer and add a new line from Conemaugh-Seward 230 kV	AEC (3.74%) / APS (6.26%) / BGE (16.82%) / DL (0.32%) / JCPL (12.57%) / ME (6.89%) / PECO (11.53%) / PEPCO (0.55%) / PPL (15.42%) / PSEG (20.52%) / RE (0.72%) / NEPTUNE* (1.70%) / ECP** (2.96%)
b1153.1	Revise the reclosing on the Shelocta 115 kV breaker 'Lucerne'	PENELEC (100%)
b1169	Replace Shawville 115 kV breaker '#1A XFMR'	PENELEC (100%)
b1170	Replace Shawville 115 kV breaker '#2A XFMR'	PENELEC (100%)
b1277	Build a new Osterburg East – Bedford North 115 kV Line, 5.7 miles of 795 ACSR	PENELEC (100%)
b1278	Install 25 MVAR Capacitor Bank at Somerset 115 kV	PENELEC (100%)

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** East Coast Power, L.L.C.

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1367	Replace the Cambria Slope 115/46 kV 50 MVA transformer with 75 MVA	PENELEC (100%)
b1368	Replace the Claysburg 115/46 kV 30 MVA transformer with 75 MVA	PENELEC (100%)
b1369	Replace the 4/0 CU substation conductor with 795 ACSR on the Westfall S21 Tap 46 kV line	PENELEC (100%)
b1370	Install a 3rd 115/46 kV transformer at Westfall	PENELEC (100%)
b1371	Reconductor 2.6 miles of the Claysburg – HCR 46 kV line with 636 ACSR	PENELEC (100%)
b1372	Replace 4/0 CU substation conductor with 795 ACSR on the Hollidaysburg – HCR 46 kV	PENELEC (100%)
b1373	Re-configure the Erie West 345 kV substation, add a new circuit breaker and relocate the Ashtabula line exit	PENELEC (100%)
b1374	Replace wave traps at Raritan River and Deep Run 115 kV substations with higher rated equipment for both B2 and C3 circuits	PENELEC (100%)
b1535	Reconductor 0.8 miles of the Gore Junction – ESG Tap 115 kV line with 795 ACSS	PENELEC (100%)

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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1607	Reconductor the New Baltimore - Bedford North 115 kV	PENELEC (100%)
b1608	Construct a new 345/115 kV substation and loop the Mansfield - Everts 115 kV	APS (8.61%) / PECO (1.72%) / PENELEC (89.67%)
b1609	Construct Four Mile Junction 230/115 kV substation. Loop the Erie South - Erie East 230 kV line, Buffalo Road - Corry East and Buffalo Road - Erie South 115 kV lines	APS (4.86%) / PENELEC (95.14%)
b1610	Install a new 230 kV breaker at Yeagertown	PENELEC (100%)
b1713	Install a 345 kV breaker at Erie West and relocate Ashtabula 345 kV line	PENELEC (100%)
b1769	Install a 75 MVAR cap bank on the Four Mile 230 kV bus	PENELEC (100%)
b1770	Install a 50 MVAR cap bank on the Buffalo Road 115 kV bus	PENELEC (100%)
b1802	Build a 100 MVAR Fast Switched Shunt and 200 MVAR Switched Shunt at Mansfield 345 kV	AEC (6.47%) / AEP (2.58%) / APS (6.88%) / BGE (6.57%) / + DPL (12.39%) / Dominion (14.89%) / JCPL (8.14%) / ME (6.21%) / NEPTUNE* (0.82%) / PECO (21.56%) / PPL (4.89%) / PSEG (8.18%) / RE (0.33%) / ECP** (0.09%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1821	Replace the Erie South 115 kV breaker 'Union City'	PENELEC (100%)
b1943	Construct a 115 kV ring bus at Claysburg Substation. Bedford North and Saxton lines will no longer share a common breaker	PENELEC (100%)
b1944	Reconductor Eclipse substation 115 kV bus with 1033 kcmil conductor	PENELEC (100%)
b1945	Install second 230/115 kV autotransformer at Johnstown	PENELEC (100%)
b1966	Replace the 1200 Amp Line trap at Lewistown on the Raystown-Lewistown 230 kV line and replace substation conductor at Lewistown	PENELEC (100%)
b1967	Replace the Blairsville 138/115 kV transformer	PENELEC (100%)
b1990	Install a 25 MVAR 115 kV Capacitor at Grandview	PENELEC (100%)
b1991	Construct Farmers Valley 345/230 kV and 230/115 kV substation. Loop the Homer City-Stolle Road 345 kV line into Farmers Valley	PENELEC (100%)
b1992	Reconductor Cambria Slope-Summit 115kV with 795 ACSS Conductor	PENELEC (100%)

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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1993	Relocate the Erie South 345 kV line terminal	APS (10.09%) / ECP** (0.45%) / HTP*** (0.49%) / JCPL (5.14%) / NEPTUNE* (0.54%) / PENELEC (70.71%) / PSEG (12.10%) / RE (0.48%)
b1994	Convert Lewis Run-Farmers Valley to 230 kV using 1033.5 ACSR conductor. Project to be completed in conjunction with new Farmers Valley 345/230 kV transformation	APS (33.20%) / ECP** (0.44%) / HTP*** (0.44%) / JCPL (8.64%) / ME (5.52%) / NEPTUNE* (0.86%) / PENELEC (36.81%) / PSEG (13.55%) / RE (0.54%)
b1995	Change CT Ratio at Claysburg	PENELEC (100%)
b1996.1	Replace 600 Amp Disconnect Switches on Ridgeway-Whetstone 115 kV line with 1200 Amp Disconnects	PENELEC (100%)
b1996.2	Reconductor Ridgeway and Whetstone 115 kV Bus	PENELEC (100%)
b1996.3	Replace Wave Trap at Ridgeway	PENELEC (100%)
b1996.4	Change CT Ratio at Ridgeway	PENELEC (100%)
b1997	Replace 600 Amp Disconnect Switches on Dubois-Harvey Run-Whetstone 115 kV line with 1200 Amp Disconnects	PENELEC (100%)

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Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1998	Install a 75 MVAR 115 kV Capacitor at Shawville	PENELEC (100%)
b2016	Reconductor bus at Wayne 115 kV station	PENELEC (100%)

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SCHEDULE 12 – APPENDIX

(8) PECO Energy Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0171.1	Replace two 500 kV circuit breakers and two wave traps at Elroy substation to increase rating of Elroy - Hosensack 500 kV	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (8.789.80%) / DPL (9.278.43%) / JCPL (19.9219.56%) / PECO (62.0362.21%)</p>
b0180	Replace Whitpain 230_kV circuit breaker #165	PECO (100%)
b0181	Replace Whitpain 230_kV circuit breaker #J105	PECO (100%)
b0182	Upgrade Plymouth Meeting 230_kV circuit breaker #125	PECO (100%)
b0205	Install three 28.8_Mvar capacitors at Planebrook 35_kV substation	PECO (100%)
b0206	Install 161_Mvar capacitor at Planebrook 230_kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)

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PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0207	Install 161_Mvar capacitor at Newlinville 230_kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)
b0208	Install 161_Mvar capacitor Heaton 230_kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)
b0209	Install 2% series reactor at Chichester substation on the Chichester - Mickleton 230_kV circuit	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)
b0264	Upgrade Chichester – Delco Tap 230 kV and the PECO portion of the Delco Tap – Mickleton 230 kV circuit	AEC (89.87%) / JCPL (9.48%) / NEPTUNE* (0.65%)
b0266	Replace two wave traps and ammeter at Peach Bottom, and two wave traps and ammeter at Newlinville 230 kV substations	PECO (100%)
b0269	Install a new 500 kV Center Point substation in PECO by tapping the Elroy – Whitpain 500 kV circuit	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE

			(0.26 <u>0.27</u> %)†
			DFAX Allocation: AEC (7.30 <u>6.70</u> %) / PECO (92.70 <u>93.30</u> %)

* Neptune Regional Transmission System, LLC

†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0269.1 Add a new 230 kV circuit between Whitpain and Heaton substations		AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.2 Reconnector the Whitpain 1 – Plymtg 1 230 kV circuit		AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.3 Convert the Heaton bus to a ring bus		AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.4 Reconnector the Heaton – Warminster 230 kV circuit		AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.5 Reconnector Warminster – Buckingham 230 kV circuit		AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††

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† Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project

†† Cost allocations associated with below 500 kV elements of the project

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0269.6	Add a new 500 kV breaker at Whitpain between #3 transformer and 5029 line	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (7.30<u>6.70</u>%) / PECO (92.70<u>93.30</u>%)</p>
b0269.7	Replace North Wales 230 kV breaker #105	PECO (100%)
b0269.10	Install a new 230 kV Center Point substation in PECO by tapping the North Wales – Perkiomen 230 kV circuit. Install a new 500/230 kV Center Point transformer	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0280.1	Install 161 MVAR capacitor at Warrington 230 kV substation	PECO 100%
b0280.2	Install 161 MVAR capacitor at Bradford 230	PECO 100%

	kV substation		
b0280.3	Install 28.8 MVAR capacitor at Warrington 34 kV substation		PECO 100%

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~~†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project~~

††Cost allocations associated with below 500 kV elements of the project

PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0280.4	Install 18 MVAR capacitor at Waverly 13.8 kV substation		PECO 100%
b0287	Install 600 MVAR Dynamic Reactive Device in Whitpain 500 kV vicinity		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (8.78<u>9.80</u>%) / DPL (9.27<u>8.43</u>%) / JCPL (19.92<u>19.56</u>%) / PECO (62.03<u>62.21</u>%)</p>
b0351	Reconductor Tunnel – Grays Ferry 230 kV		PECO (100%)
b0352	Reconductor Tunnel – Parrish 230 kV		PECO (100%)
b0353.1	Install 2% reactors on both lines from Eddystone – Llanerch 138 kV		PECO (100%)
b0353.2	Install identical second 230/138 kV transformer in parallel with existing 230/138 kV transformer at Plymouth Meeting		PECO 100%

b0353.3	Replace Whitpain 230 kV breaker 135		PECO (100%)
b0353.4	Replace Whitpain 230 kV breaker 145		PECO (100%)

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~~††Cost allocations associated with below 500 kV elements of the project~~

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0354	Eddystone – Island Road Upgrade line terminal equipment	PECO 100%
b0355	Reconductor Master – North Philadelphia 230 kV line	PECO 100%
b0357	Reconductor Buckingham – Pleasant Valley 230 kV	JCPL (37.17%) / NEPTUNE* (4.46%) / PSEG (54.14%) / RE (2.32%) / ECP** (1.91%)
b0359	Reconductor North Philadelphia – Waneeta 230 kV circuit	PECO 100%
b0402.1	Replace Whitpain 230 kV breaker #245	PECO (100%)
b0402.2	Replace Whitpain 230 kV breaker #255	PECO (100%)
b0438	Spare Whitpain 500/230 kV transformer	PECO (100%)
b0443	Spare Peach Bottom 500/230 kV transformer	PECO (100%)
b0505	Reconductor the North Wales – Whitpain 230 kV circuit	AEC (8.58%) / DPL (7.76%) / PECO (83.66%)
b0506	Reconductor the North Wales – Hartman 230 kV circuit	AEC (8.58%) / DPL (7.76%) / PECO (83.66%)
b0507	Reconductor the Jarrett – Whitpain 230 kV circuit	AEC (8.58%) / DPL (7.76%) PECO (83.66%)
b0508.1	Replace station cable at Hartman on the Warrington - Hartman 230 kV circuit	PECO (100%)
b0509	Reconductor the Jarrett – Heaton 230 kV circuit	PECO (100%)

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PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0727	Rebuild Bryn Mawr – Plymouth Meeting 138 kV line	AEC (1.25%) / DPL (3.11%) / PECO (95.64%)
b0789	Reconductor the line to provide a normal rating of 677 MVA and an emergency rating of 827 MVA	AEC (0.72%) / JCPL (17.36%) / NEPTUNE* (1.70%) / PECO (44.47%) / ECP** (0.92%) / PSEG (33.52%) / RE (1.31%)
b0790	Reconductor the Bradford – Planebrook 230 kV Ckt. 220-31 to provide a normal rating of 677 MVA and emergency rating of 827 MVA	JCPL (17.30%) / NEPTUNE* (1.69%) / PECO (45.09%) / ECP** (0.93%) / PSEG (33.68%) / RE (1.31%)
b0829.1	Replace Whitpain 230 kV breaker '155'	PECO (100%)
b1073	Install 2 new 230 kV breakers at Planebrook (on the 220-02 line terminal and on the 230 kV side of the #9 transformer)	PECO (100%)
b0829.2	Replace Whitpain 230 kV breaker '525'	PECO (100%)
b0829.3	Replace Whitpain 230 kV breaker '175'	PECO (100%)
b0829.4	Replace Plymouth Meeting 230 kV breaker '225'	PECO (100%)
b0829.5	Replace Plymouth Meeting 230 kV breaker '335'	PECO (100%)
b0841	Move the connection points for the 2nd Plymouth Meeting 230/138 kV XFMR	PECO (100%)

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PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0842	Install a 2nd 230/138 kV XFMR and 35 MVAR CAP at Heaton 138 kV bus	PECO (100%)
b0842.1	Replace Heaton 138 kV breaker '150'	PECO (100%)
b0843	Install a 75 MVAR CAP at Llanerch 138 kV bus	PECO (100%)
b0844	Move the connection point for the Llanerch 138/69 kV XFMR	PECO (100%)
b0887	Replace Richmond-Tacony 69 kV line	PECO (100%)
b0920	Replace station cable at Whitpain and Jarrett substations on the Jarrett - Whitpain 230 kV circuit	PECO (100%)
b1014.1	Replace Circuit breaker, Station Cable, CTs and Wave Trap at Eddystone 230 kV	PECO (100%)
b1014.2	Replace Circuit breaker, Station Cable, CTs Disconnect Switch and Wave Trap at Island Rd. 230 kV	PECO (100%)
b1015	Replace Breakers #115 and #125 at Printz 230 kV substation	PECO (100%)
b1156.1	Upgrade at Richmond 230 kV breaker '525'	PECO (100%)
b1156.2	Upgrade at Richmond 230 kV breaker '415'	PECO (100%)
b1156.3	Upgrade at Richmond 230 kV breaker '475'	PECO (100%)
b1156.4	Upgrade at Richmond 230 kV breaker '575'	PECO (100%)

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PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1156.5	Upgrade at Richmond 230 kV breaker '185'		PECO (100%)
b1156.6	Upgrade at Richmond 230 kV breaker '285'		PECO (100%)
b1156.7	Upgrade at Richmond 230 kV breaker '85'		PECO (100%)
b1156.8	Upgrade at Waneeta 230 kV breaker '425'		PECO (100%)
b1156.9	Upgrade at Emilie 230 kV breaker '815'		PECO (100%)
b1156.10	Upgrade at Plymouth Meeting 230 kV breaker '265'		PECO (100%)
b1156.11	Upgrade at Croydon 230 kV breaker '115'		PECO (100%)
b1156.12	Replace Emilie 138 kV breaker '190'		PECO (100%)
b1178	Add a second 230/138 kV transformer at Chichester. Add an inductor in series with the parallel transformers		JCPL (4.14%) / Neptune* (0.44%) / PECO (82.19%) / ECP** (0.33%) / HTP*** (0.32%) / PSEG (12.10%) / RE (0.48%)
b1179	Replace terminal equipment at Eddystone and Saville and replace underground section of the line		PECO (100%)
b1180.1	Replace terminal equipment at Chichester		PECO (100%)
b1180.2	Replace terminal equipment at Chichester		PECO (100%)
b1181	Install 230/138 kV transformer at Eddystone		PECO (100%)

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PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1182	Reconductor Chichester – Saville 138 kV line and upgrade terminal equipment		JCPL (5.08%) / Neptune* (0.54%) / PECO (78.85%) / ECP** (0.39%) / HTP*** (0.38%) / PSEG (14.20%) / RE (0.56%)
b1183	Replace 230/69 kV transformer #6 at Cromby. Add two 50 MVAR 230 kV banks at Cromby		PECO (100%)
b1184	Add 138 kV breakers at Cromby, Perkiomen, and North Wales; add a 35 MVAR capacitor at Perkiomen 138 kV		PECO (100%)
b1185	Upgrade Eddystone 230 kV breaker #365		PECO (100%)
b1186	Upgrade Eddystone 230 kV breaker #785		PECO (100%)
b1197	Reconductor the PECO portion of the Burlington – Croydon circuit		PECO (100%)
b1198	Replace terminal equipments including station cable, disconnects and relay at Conowingo 230 kV station		PECO (100%)
b1338	Replace Printz 230 kV breaker '225'		PECO (100%)
b1339	Replace Printz 230 kV breaker '315'		PECO (100%)
b1340	Replace Printz 230 kV breaker '215'		PECO (100%)
b1398.6	Reconductor the Camden – Richmond 230 kV circuit (PECO portion) and upgrade terminal equipments at Camden substations		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)

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PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1398.8	Reconductor Richmond – Waneeta 230 kV and replace terminal equipments at Richmond and Waneeta substations	JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.12	Replace Graysferry 230 kV breaker ‘115’	PECO (100%)
b1398.13	Upgrade Peach Bottom 500 kV breaker ‘225’	AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)†
b1398.14	Replace Whitpain 230 kV breaker ‘105’	PECO (100%)
b1590.1	Upgrade the PECO portion of the Camden – Richmond 230 kV to a six wire conductor and replace terminal equipment at Richmond.	BGE (3.05%) / ME (0.83%) / HTP*** (0.21%) / PECO (91.36%) / PEPCO (1.93%) / PPL (2.46%) / ECP** (0.16%)
b1591	Reconductor the underground portion of the Richmond – Waneeta 230 kV and replace terminal equipment	BGE (4.54%) / DL (0.27%) / ME (1.04%) / HTP*** (0.03%) / PECO (88.08%) / PEPCO (2.79%) / PPL (3.25%)

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†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities
associated with the project

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1717	Install a second Waneeta 230/138 kV transformer on a separate bus section	HTP*** (0.04%) / PECO (99.96%)
b1718	Reconductor the Crescentville - Foxchase 138 kV circuit	PECO (100%)
b1719	Reconductor the Foxchase - Bluegrass 138 kV circuit	PECO (100%)
b1720	Increase the effective rating of the Eddystone 230/138 kV transformer by replacing a circuit breaker at Eddystone	PECO (100%)
b1721	Increase the rating of the Waneeta - Tuna 138 kV circuit by replacing two 138 kV CTs at Waneeta	PECO (100%)
b1722	Increase the normal rating of the Cedarbrook - Whitmarsh 69 kV circuit by changing the CT ratio and replacing station cable at Whitmarsh 69 kV	PECO (100%)
b1768	Install 39 MVAR capacitor at Cromby 138 kV bus	PECO (100%)
b1900	Add a 3rd 230 kV transmission line between Chichester and Linwood substations and remove the Linwood SPS	PECO (69.62%) / JCPL (6.02%) / ATSI (1.23%) / PSEG (20.83%) / RE (0.83%) / NEPTUNE* (0.59%) / ECP** (0.45%) / HTP*** (0.43%)
b2140	Install a 3rd Emilie 230/138 kV transformer	PECO (97.04%) / ECP** (1.62%) / HTP*** (1.34%)
b2145	Replace two sections of conductor inside Richmond substation	PECO (100%)

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SCHEDULE 12 – APPENDIX

(9) PPL Electric Utilities Corporation

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0074	Rebuild 12 miles of S. Akron – Berks 230 kV to double circuit, looping Met Ed's S. Lebanon – S. Reading line into Berks; replacement of S. Reading 230 kV breaker 107252	PPL (100%)
b0171.2	Replace wavetrap at Hosensack 500 kV substation to increase rating of Elroy - Hosensack 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (8.78<u>9.80</u>%) / DPL (9.27<u>8.43</u>%) / JCPL (19.92<u>19.56</u>%) / PECO (62.03<u>62.21</u>%)</p>

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0172.1	Replace wave trap at Alburdis 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (8.09<u>8.24</u>%) / JCPL (32.99<u>30.19</u>%) / NEPTUNE* (5.38<u>4.85</u>%) / PSEG (51.49<u>54.60</u>%) / RE (2.05<u>2.12</u>%)</p>
b0284.2	Replace two wave traps at Juniata 500 kV – on the two Juniata – Airydale 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation:</p>

			AEC (5.58 <u>5.89</u> %) / BGE (18.21 <u>14.03</u> %) / JCPL (18.24 <u>19.26</u> %) / ME (11.07 <u>10.43</u> %) / NEPTUNE* (2.03 <u>2.13</u> %) / PECO (18.80 <u>20.70</u> %) / PSEG (25.07 <u>26.53</u> %) / RE (1.00 <u>1.03</u> %)
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PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0284.4	Changes at Juniata 500 kV substation	PPL (100%)
b0293.1	Replace wavetrap at the Martins Creek 230 kV bus	PPL (100%)
b0293.2	Raise the operating temperature of the 2-1590 ACSR to 140C for the Martins Creek – Portland 230 kV circuit	PPL (100%)
b0440	Spare Juniata 500/230 kV transformer	PPL (100%)
b0468	Build a new substation with two 150 MVA transformers between Dauphin and Hummelstown 230/69 kV substations by sectionalizing the Middletown Junction – New Lebanon 230 kV line	JCPL (4.55%) / NEPTUNE* (0.37%) / PECO (1.79%) / PENELEC (0.33%) / PPL (86.63%) / ECP** (0.18%) / PSEG (5.93%) / RE (0.22%)

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PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0469	Install 130 MVAR capacitor at West Shore 230 kV line	PPL (100%)
b0487	Build new 500 kV transmission facilities from Susquehanna to Pennsylvania – New Jersey border at Bushkill	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: JCPL (33.79<u>30.99</u>%) / NEPTUNE* (4.36<u>3.92</u>%) / PSEG (59.48<u>62.66</u>%) / RE (2.37<u>2.43</u>%)</p>
b0487.1	Install Lackawanna 500/230 kV transformer and upgrade 230 kV substation and switchyard	PENELEC (16.90%) / PPL (77.59%) / ECP** (0.19%) / PSEG (5.13%) / RE (0.19%)
b0500.1	Conastone – Otter Creek 230 kV – Reconductor approximately 17.2 miles of 795 kmil ACSR with new 795 kmil ACSS operated at 160 deg C	AEC (6.27%) / DPL (8.65%) / JCPL (14.54%) / ME (10.59%) / Neptune* (1.37%) / PECO (15.66%) / PPL (21.02%) / ECP** (0.57%) / PSEG (20.56%) / RE (0.77%)

*Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

The Annual Revenue Requirements associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-8G.

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0558	Install 250 MVAR capacitor at Juniata 500 kV substation	AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPSCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)
b0593	Eldred – Pine Grove 69 kV line Rebuild Part 2: 8 miles	PPL (100%)
b0595	Rebuild Lackawanna – Edella 69 kV line to double circuit	PPL (100%)
b0596	Reconductor and rebuild Stanton – Providence 69 kV #1 and #2 lines with 69 kV design; approximately 8 miles total	PPL (100%)
b0597	Reconductor Suburban – Providence 69 kV #1 and resectionalize the Suburban 69 kV lines	PPL (100%)
b0598	Reconductor Suburban Taps #1 and #2 for 69 kV line portions	PPL (100%)

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0600	Tripp Park Substation: 69 kV tap off Stanton – Providence 69 kV line #3 to new substation		PPL (100%)
b0601	Jessup Substation: New 138/69 kV tap off of Peckville – Jackson 138/69 kV line		PPL (100%)
b0604	Add 150 MVA, 230/138/69 transformer #6 to Harwood substation		PPL (100%)
b0605	Reconductor Stanton – Old Forge 69 kV line and resectionalize the Jenkins – Scranton 69 kV #1 and #2 lines		PPL (100%)
b0606	New 138 kV tap off Monroe – Jackson 138 kV #1 line to Bartonsville substation		PPL (100%)
b0607	New 138 kV taps off Monroe – Jackson 138 kV lines to Stroudsburg substation		PPL (100%)
b0608	New 138 kV tap off Siegfried – Jackson 138 kV #2 to transformer #2 at Gilbert substation		PPL (100%)
b0610	At South Farmersville substation, a new 69 kV tap off Nazareth – Quarry #2 to transformer #2		PPL (100%)
b0612	Rebuild Siegfried – North Bethlehem portion (6.7 miles) of Siegfried – Quarry 69 kV line		PPL (100%)
b0613	East Tannersville Substation: New 138 kV tap to new substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0614 Elroy substation expansion and new Elroy – Hatfield 138/69 kV double circuit lines (1.9 miles)		PPL (100%)
b0615 Reconductor and rebuild 12 miles of Seidersville – Quakerstown 138/69 kV and a new 75 MVA, 230/69 kV transformer #4		PPL (100%)
b0616 New Springfield 230/69 kV substation and transmission line connections		PPL (100%)
b0620 New 138 kV line and terminal at Monroe 230/138 substation		PPL (100%)
b0621 New 138 kV line and terminal at Siegfried 230/138 kV substation and add a second circuit to Siegfried – Jackson for 8.0 miles		PPL (100%)
b0622 138 kV yard upgrades and transmission line rearrangements at Jackson 138/69 kV substation		PPL (100%)
b0623 New West Shore – Whitehill Taps 138/69 kV double circuit line (1.3 miles)		PPL (100%)
b0624 Reconductor Cumberland – Wertzville 69 kV portion (3.7 miles) of Cumberland – West Shore 69 kV line		PPL (100%)
b0625 Reconductor Mt. Allen – Rossmoyne 69 kV portions (1.6 miles) of West Shore – Cumberland #3 and #4 lines		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0627	Replace UG cable from Walnut substation to Center City Harrisburg substation for higher ampacity (0.25 miles)		PPL (100%)
b0629	Lincoln substation: 69 kV tap to convert to modified Twin A		PPL (100%)
b0630	W. Hempfield – Donegal 69 kV line: Reconductor / rebuild from Landisville Tap – Mt. Joy (2 miles)		PPL (100%)
b0631	W. Hempfield – Donegal 69 kV line: Reconductor / rebuild to double circuit from Mt. Joy – Donegal (2 miles)		PPL (100%)
b0632	Terminate new S. Manheim – Donegal 69 kV circuit into S. Manheim 69 kV #3		PPL (100%)
b0634	Rebuild S. Manheim – Fuller 69 kV portion (1.0 mile) of S. Manheim – West Hempfield 69 kV #3 line into a 69 kV double circuit		PPL (100%)
b0635	Reconductor Fuller Tap – Landisville 69 kV (4.1 miles) into a 69 kV double circuit		PPL (100%)
b0703	Berks substation modification on Berks – South Akron 230 kV line. Modification will isolate the line fault on the South Akron line and will allow Berks transformer #2 to be energized by the South Lebanon 230 kV circuit		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0705	New Derry – Millville 69 kV line		PPL (100%)
b0707	Construct Bohemia – Twin Lakes 69 kV line, install a 10.9 MVAR capacitor bank near Bohemia 69 kV substation		PPL (100%)
b0708	New 69 kV double circuit from Jackson – Lake Naomi Tap		PPL (100%)
b0709	Install new 69 kV double circuit from Carlisle – West Carlisle		PPL (100%)
b0710	Install a third 69 kV line from Reese’s Tap to Hershey substation		PPL (100%)
b0711	New 69 kV that taps West Shore – Cumberland 69 kV #1 to Whitehill 69 kV substation		PPL (100%)
b0712	Construct a new 69 kV line between Strassburg Tap and the Millwood – Engleside 69 kV #1 line		PPL (100%)
b0713	Construct a new 138 kV double circuit line between Dillersville Tap and the West Hempfield – Prince 138 kV line		PPL (100%)
b0714	Prepare Roseville Tap for 138 kV conversion		PPL (100%)
b0715	Transfer S. Akron – S. Manheim #1 and #2 lines from the S. Akron 69 kV Yard to the S. Akron 138 kV Yard; Install switches on S. Akron – S. Manheim 138 kV #1 and #2 lines		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0716	Add a second 69 kV line from Morgantown – Twin Valley		PPL (100%)
b0717	Rebuild existing Brunner Island – West Shore 230 kV line and add a second Brunner Island – West Shore 230 kV line		PPL (100%)
b0718	SPS scheme to drop 190 MVA of 69 kV radial load at West Shore and 56 MVA of 69 kV radial load at Cumberland		PPL (100%)
b0719	SPS scheme at Jenkins substation to open the Stanton #1 and Stanton #2 230 kV circuit breakers after the second contingency		PPL (100%)
b0791	Add a fourth 230/69 kV transformer at Stanton		PENELEC (9.55%) / PPL (90.45%)
b1074	Install motor operators on the Jenkins 230 kV ‘2W’ disconnect switch and build out Jenkins Bay 3 and have MOD ‘3W’ operated as normally open		PPL (100%)
b0881	Install motor operators on Susquehanna T21 - Susquehanna 230 kV line East CB at Susquehanna 230 kV switching station		PPL (100%)
b0908	Install motor operators at South Akron 230 kV		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0909	Convert Jenkins 230 kV yard into a 3-breaker ring bus		PPL (100%)
b0910	Install a second 230 kV line between Jenkins and Stanton		PPL (100%)
b0911	Install motor operators at Frackville 230 kV		PPL (100%)
b0912	Install 2, 10.8 MVAR capacitor banks at Scranton 69 kV		PPL (100%)
b0913	Extend Cando Tap to the Harwood-Jenkins #2 69 kV line		PPL (100%)
b0914	Build a 3rd 69 kV line from Harwood to Valmont Taps		PPL (100%)
b0915	Replace Walnut-Center City 69 kV cable		PPL (100%)
b0916	Reconductor Sunbury-Dalmatia 69 kV line		PPL (100%)
b1021	Install a new (#4) 138/69 kV transformer at Wescosville		PPL (100%)
b1196	Remove the Siegfried bus tie breaker and install a new breaker on the Martins Creek 230 kV line west bay to maintain two ties between the 230 kV buses		PPL (100%)
b1201	Rebuild the Hercules Tap to Double Circuit 69 kV		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1202	Mack-Macungie Double Tap, Single Feed Arrangement		PPL (100%)
b1203	Add the 2nd Circuit to the East Palmerton-Wagners-Lake Naomi 138/69 kV Tap		PPL (100%)
b1204	New Breinigsville 230-69 kV Substation		PPL (100%)
b1205	Siegfried-East Palmerton #1 69 kV Line- Install new 69 kV LSAB, Sectionalize, and Transfer Treichlers Substation		PPL (100%)
b1206	Siegfried-Quarry #1 & #2 69 kV Lines- Rebuild 3.3 mi from Quarry Substation to Macada Taps		PPL (100%)
b1209	Convert Neffsville Taps from 69 kV to 138 kV Operation		PPL (100%)
b1210	Convert Roseville Taps from 69 kV to 138 kV Operation (Part 1 – operate on the 69 kV system)		PPL (100%)
b1211	Convert Roseville Taps from 69 kV to 138 kV Operation (Part 2 – operate on the 138 kV system)		PPL (100%)
b1212	New 138 kV Taps to Flory Mill 138/69 kV Substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b1213	Convert East Petersburg Taps from 69 kV to 138 kV operation, install two 10.8 MVAR capacitor banks		PPL (100%)
b1214	Terminate South Manheim-Donegal #2 at South Manheim, Reduce South Manheim 69 kV Capacitor Bank, Resectionalize 69 kV		PPL (100%)
b1215	Reconductor and rebuild 16 miles of Peckville-Varden 69 kV line and 4 miles of Blooming Grove-Honesdale 69 kV line		PPL (100%)
b1216	Build approximately 2.5 miles of new 69 kV transmission line to provide a “double tap – single feed” connection to Kimbles 69/12 kV substation		PPL (100%)
b1217	Provide a “double tap – single feed” connection to Tafton 69/12 kV substation		PPL (100%)
b1524	Build a new Pocono 230/69 kV substation		PPL (100%)
b1524.1	Build approximately 14 miles new 230 kV South Pocono – North Pocono line		PPL (100%)
b1524.2	Install MOLSABs at Mt. Pocono substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1525	Build new West Pocono 230/69 kV Substation		PPL (100%)
b1525.1	Build approximately 14 miles new 230 kV Jenkins-West Pocono 230 kV Line		PPL (100%)
b1525.2	Install Jenkins 3E 230 kV circuit breaker		PPL (100%)
b1526	Install a new Honeybrook – Twin Valley 69/138 kV tie		PPL (100%)
b1528	Install Motor-Operated switches on the Wescosville-Trexlerstown #1 & #2 69 kV lines at East Texas Substation		PPL (100%)
b1529	Add a double breaker 230 kV bay 3 at Hosensack		PPL (100%)
b1530	Replace Lock Haven 69 kV ring bus with standard breaker and half design		PPL (100%)
b1532	Install new 32.4 MVAR capacitor bank at Sunbury		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1533	Rebuild Lycoming-Lock Haven #1 and Lycoming-Lock Haven #2 69 kV lines		PPL (100%)
b1534	Rebuild 1.4 miles of the Sunbury-Milton 69 kV		PPL (100%)
b1601	Re-configure the Breinigsville 500 kV substation with addition two 500 kV circuit breakers		AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)†
b1602	Re-configure the Elimsport 230 kV substation to breaker and half scheme and install 80 MVAR capacitor		PPL (100%)
b1740	Install a 90 MVAR cap bank on the Frackville 230 kV bus #207973		PPL (100%)
b1756	Install a 3rd West Shore 230/69 kV transformer		PPL (100%)
b1757	Install a 230 kV motor-operated air-break switch on the Clinton - Elimsport 230 kV line		PPL (100%)

* Neptune Regional Transmission System, LLC

†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1758	Rebuild 1.65 miles of Columbia - Danville 69 kV line		PPL (100%)
b1759	Install a 69 kV 16.2 MVAR Cap at Milton substation		PPL (100%)
b1760	Install motor operated devices on the existing disconnect switches that are located on each side of all four 230 kV CBs at Stanton		PPL (100%)
b1761	Build a new Paupack - North 230 kV line (Approximately 21 miles)		PPL (100%)
b1762	Replace 3.7 miles of the existing 230 kV Blooming Grove - Peckville line by building 8.4 miles of new 230 kV circuit onto the Lackawanna - Hopatcong tower-line		PPL (100%)
b1763	Re-terminate the Peckville - Jackson and the Peckville - Varden 69 kV lines from Peckville into Lackawanna		PPL (100%)
b1764	Build a new 230-69 kV substations (Paupack)		PPL (100%)
b1765	Install a 16.2 MVAR capacitor bank at Bohemia 69-12 kV substation		PPL (100%)
b1766	Reconductor/rebuild 3.3 miles of the Siegfried - Quarry #1 and #2 lines		PPL (100%)
b1767	Install 6 motor-operated disconnect switches at Quarry substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1788	Install a new 500 kV circuit breaker at Wescosville		PPL (100%)
b1890	Add a second 230/69 kV transformer at North Pocono (NE/Pocono Reliability Project)		PPL (100%)
b1891	Build a new 230/138 kV Yard at Lackawanna (138 kV conversion from Lackawanna to Jenkins)		PPL (100%)
b1892	Rebuild the Throop Taps for 138 kV operation (138 kV Conversion from Lackawanna to Jenkins)		PPL (100%)
b1893	Swap the Staton - Old Forge and Stanton - Brookside 69 kV circuits at Stanton (138 kV Conversion from Lackawanna to Jenkins)		PPL (100%)
b1894	Rebuild and re-conductor 2.5 miles of the Stanton - Avoca 69 kV line		PPL (100%)
b1895	Rebuild and re-conductor 4.9 miles of the Stanton - Providence #1 69 kV line		PPL (100%)
b1896	Install a second 230/138 kV transformer and expand the 138 kV yard at Monroe		PPL (100%)
b1897	Build a new 230/138 kV substation at Jenkins (138 kV Conversion from Lackawanna to Jenkins)		PPL (100%)
b1898	Install a 69 kV Tie Line between Richfield and Dalmatia substations		PPL (100%)
b2004	Replace the CTs and switch in South Akron Bay 4 to increase the rating		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2005	Replace the CTs and switch in SAKR Bay 3 to increase the rating of the Millwood-South Akron 230 kV Line and of the rating in Bay 3	PPL (100%)
b2006	Install North Lancaster 500/230 kV substation (below 500 kV portion)	AEC (1.10%) / ECP** (0.37%) / HTP*** (0.37%) / JCPL (9.61%) / ME (19.42%) / NEPTUNE* (0.75%) / PECO (6.01%) / PPL (50.57%) / PSEG (11.35%) / RE (0.45%)
b2006.1	Install North Lancaster 500/230 kV substation (500 kV portion)	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: BGE (19.51%) / PPL (10080.49%)</p>
b2006.2	Construct a new 230/69 kV North Lancaster substation. The sub will be supplied from the SAKR-BERK 230 kV Line	PPL (100%)

b2006.3	Construct new 69/138 kV transmission from North Lancaster 230/69 kV sub to Brecknock and Honeybrook areas		PPL (100%)
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* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

*** Hudson Transmission Partners, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2007	Install a 90 MVAR capacitor bank at the Frackville 230 kV Substation		PPL (100%)
b2158	Install 10.8 MVAR capacitor at West Carlisle 69/12 kV substation		PPL (100%)

SCHEDULE 12 – APPENDIX

(10) Potomac Electric Power Company

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0146	Installation of (2) new 230 kV circuit breakers at Quince Orchard substation on circuits 23028 and 23029		PEPCO (100%)
b0219	Install two new 230 kV circuits between Palmers Corner and Blue Plains		PEPCO (100%)
b0228	Upgrade Burtonsville – Sandy Springs 230 kV circuit		PEPCO (100%)
b0238.1	Modify Dickerson Station H 230 kV		PEPCO (100%)
b0251	Install 100 MVAR of 230 kV capacitors at Bells Mill		PEPCO (100%)
b0252	Install 100 MVAR of 230 kV capacitors at Bells Mill		PEPCO (100%)
b0288	Brighton Substation – add 2 nd 1000 MVA 500/230 kV transformer, 2 500 kV circuit breakers and miscellaneous bus work		BGE (19.33%) / Dominion (17%) / PEPCO (63.67%)
b0319	Add a second 1000 MVA Bruches Hill 500/230 kV transformer		PEPCO (100%)
b0366	Install a 4 th Ritchie 230/69 kV transformer		PEPCO (100%)
b0367.1	Reconductor circuit “23035” for Dickerson – Quince Orchard 230 kV		AEC (1.78%) / BGE (26.52%) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / NEPTUNE* (0.25%) / PECO (4.79%) / PEPCO (52.46%) / PPL (3.23%) / PSEG (3.81%) / ECP** (0.08%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-9.

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0367.2	Reconductor circuit "23033" for Dickerson – Quince Orchard 230 kV	AEC (1.78%) / BGE (26.52%) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / NEPTUNE* (0.25%) / PECO (4.79%) / PEPCO (52.46%) / PPL (3.23%) / PSEG (3.81%) / ECP** (0.08%)
b0375	Install 0.5% reactor at Dickerson on the Pleasant View – Dickerson 230 kV circuit	AEC (1.02%) / BGE (25.42%) / DPL (2.97%) / ME (1.72%) / PECO (3.47%) / PEPCO (65.40%)
b0467.1	Reconductor the Dickerson – Pleasant View 230 kV circuit	AEC (1.75%) / APS (19.70%) / BGE (22.13%) / DPL (3.70%) / JCPL (0.71%) / ME (2.48%) / NEPTUNE* (0.06%) / PECO (5.54%) / PEPCO (41.86%) / PPL (2.07%)
b0478	Reconductor the four circuits from Burches Hill to Palmers Corner	APS (1.68%) / BGE (1.83%) / PEPCO (96.49%)
b0496	Replace existing 500/230 kV transformer at Brighton	APS (5.67%) / BGE (29.68%) / Dominion (10.91%) / PEPCO (53.74%)
b0499	Install third Burches Hill 500/230 kV transformer	APS (3.54%) / BGE (7.31%) / PEPCO (89.15%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-9.

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.7	Advance n0772 (Replace Chalk Point 230 kV breaker (1A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.8	Advance n0773 (Replace Chalk Point 230 kV breaker (1B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.9	Advance n0774 (Replace Chalk Point 230 kV breaker (2A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.10	Advance n0775 (Replace Chalk Point 230 kV breaker (2B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.11	Advance n0776 (Replace Chalk Point 230 kV breaker (2C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.12	Advance n0777 (Replace Chalk Point 230 kV breaker (3A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPSCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPSCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.13	Advance n0778 (Replace Chalk Point 230 kV breaker (3B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPSCO (3.823.71%) / PPL (4.724.78%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0512.14	Advance n0779 (Replace Chalk Point 230 kV breaker (3C) with 80 kA breaker)		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>
b0512.15	Advance n0780 (Replace Chalk Point 230 kV breaker (4A) with 80 kA breaker)		<p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p> <p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0512.16	Advance n0781 (Replace Chalk Point 230 kV breaker (4B) with 80 kA breaker)		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>
b0512.17	Advance n0782 (Replace Chalk Point 230 kV breaker (5A) with 80 kA breaker)		<p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p> <p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.18	Advance n0783 (Replace Chalk Point 230 kV breaker (5B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.19	Advance n0784 (Replace Chalk Point 230 kV breaker (6A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0512.20	Advance n0785 (Replace Chalk Point 230 kV breaker (6B) with 80 kA breaker)		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.21	Advance n0786 (Replace Chalk Point 230 kV breaker (7B) with 80 kA breaker)		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.22	Advance n0787 (Replace Chalk Point 230 kV breaker (8A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.23	Advance n0788 (Replace Chalk Point 230 kV breaker (8B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.24	Advance n0789 (Replace Chalk Point 230 kV breaker (7A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.25	Advance n0790 (Replace Chalk Point 230 kV <u>kV</u> breaker (1C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.26	Advance n0791 (Replace Chalk Point 230 Kv <u>kV</u> breaker (4C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.27	Advance n0792 (Replace Chalk Point 230 Kv <u>kV</u> breaker (5C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0512.28	Advance n0793 (Replace Chalk Point 230 Kv <u>kV</u> breaker (6C) with 80 kA breaker)		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>
b0512.29	Advance n0794 (Replace Chalk Point 230 Kv <u>kV</u> breaker (7C) with 80 kA breaker)		<p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p> <p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0526	Build two Ritchie – Benning Station A 230 kV lines		AEC (0.77%) / BGE (16.76%) / DPL (1.22%) / JCPL (1.39%) / ME (0.59%) / NEPTUNE* (0.13%) / PECO (2.10%) / PEPCO (74.86%) / PSEG (2.10%) / RE (0.08%)
b0561	Install 300 MVAR capacitor at Dickerson Station “D” 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0562	Install 500 MVAR capacitor at Brighton 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0637	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0638	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0639	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0640	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0641	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0642	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0643	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0644	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0645	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0646	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0647	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0648	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0649	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0701	Expand Benning 230 kV station, add a new 250 MVA 230/69 kV transformer at Benning Station 'A', new 115 kV Benning switching station	BGE (30.57%) / PEPCO (69.43%)
b0702	Add a second 50 MVAR 230 kV shunt reactor at the Benning 230 kV substation	PEPCO (100%)
b0720	Upgrade terminal equipment on both lines	PEPCO (100%)
b0721	Upgrade Oak Grove – Ritchie 23061 230 kV line	PEPCO (100%)
b0722	Upgrade Oak Grove – Ritchie 23058 230 kV line	PEPCO (100%)
b0723	Upgrade Oak Grove – Ritchie 23059 230 kV line	PEPCO (100%)
b0724	Upgrade Oak Grove – Ritchie 23060 230 kV line	PEPCO (100%)
b0730	Add slow oil circulation to the four Bells Mill Road – Bethesda 138 kV lines, add slow oil circulation to the two Buzzard Point – Southwest 138 kV lines; increasing the thermal ratings of these six lines allows for greater adjustment of the O Street phase shifters	PEPCO (100%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0731	Implement an SPS to automatically shed load on the 34 kV Bells Mill Road bus for this N-2 condition. The SPS will be in effect for 2013 and 2014 until a third Bells Mill 230/34 kV is placed in-service in 2015	PEPCO (100%)
b0746	Upgrade circuit for 3,000 amps using the ACCR	AEC (0.73%) / BGE (31.05%) / DPL (1.45%) / PECO (2.46%) / PEPCO (62.88%) / PPL (1.43%)
b0747	Upgrade terminal equipment on both lines: Quince Orchard - Bells Mill 230 kV (030) and (028)	PEPCO (100%)
b0802	Advance n0259 (Replace Dickerson Station H Circuit Breaker 412A)	PEPCO (100%)
b0803	Advance n0260 (Replace Dickerson Station H Circuit Breaker 42A)	PEPCO (100%)
b0804	Advance n0261 (Replace Dickerson Station H Circuit Breaker 42C)	PEPCO (100%)
b0805	Advance n0262 (Replace Dickerson Station H Circuit Breaker 43A)	PEPCO (100%)
b0806	Advance n0264 (Replace Dickerson Station H Circuit Breaker 44A)	PEPCO (100%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0809	Advance n0267 (Replace Dickerson Station H Circuit Breaker 45B)		PEPCO (100%)
b0810	Advance n0270 (Replace Dickerson Station H Circuit Breaker 47A)		PEPCO (100%)
b0811	Advance n0726 (Replace Dickerson Station H Circuit Breaker SPARE)		PEPCO (100%)
b0845	Replace Chalk Point 230 kV breaker (1A) with 80 kA breaker		PEPCO (100%)
b0846	Replace Chalk Point 230 kV breaker (1B) with 80 kA breaker		PEPCO (100%)
b0847	Replace Chalk Point 230 kV breaker (2A) with 80 kA breaker		PEPCO (100%)
b0848	Replace Chalk Point 230 kV breaker (2B) with 80 kA breaker		PEPCO (100%)
b0849	Replace Chalk Point 230 kV breaker (2C) with 80 kA breaker		PEPCO (100%)
b0850	Replace Chalk Point 230 kV breaker (3A) with 80 kA breaker		PEPCO (100%)
b0851	Replace Chalk Point 230 kV breaker (3B) with 80 kA breaker		PEPCO (100%)
b0852	Replace Chalk Point 230 kV breaker (3C) with 80 kA breaker		PEPCO (100%)
b0853	Replace Chalk Point 230 kV breaker (4A) with 80 kA breaker		PEPCO (100%)
b0854	Replace Chalk Point 230 kV breaker (4B) with 80 kA breaker		PEPCO (100%)
b0855	Replace Chalk Point 230 kV breaker (5A) with 80 kA breaker		PEPCO (100%)

Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0856	Replace Chalk Point 230 kV breaker (5B) with 80 kA breaker		PEPCO (100%)
b0857	Replace Chalk Point 230 kV breaker (6A) with 80 kA breaker		PEPCO (100%)
b0858	Replace Chalk Point 230 kV breaker (6B) with 80 kA breaker		PEPCO (100%)
b0859	Replace Chalk Point 230 kV breaker (7B) with 80 kA breaker		PEPCO (100%)
b0860	Replace Chalk Point 230 kV breaker (8A) with 80 kA breaker		PEPCO (100%)
b0861	Replace Chalk Point 230 kV breaker (8B) with 80 kA breaker		PEPCO (100%)
b0862	Replace Chalk Point 230 kV breaker (7A) with 80 kA breaker		PEPCO (100%)
b0863	Replace Chalk Point 230 kV breaker (1C) with 80 kA breaker		PEPCO (100%)
b1104	Replace Burtonsville 230 kV breaker '1C'		PEPCO (100%)
b1105	Replace Burtonsville 230 kV breaker '2C'		PEPCO (100%)
b1106	Replace Burtonsville 230 kV breaker '3C'		PEPCO (100%)
b1107	Replace Burtonsville 230 kV breaker '4C'		PEPCO (100%)
b1125	Convert the 138 kV line from Buzzard 138 - Ritchie 851 to a 230 kV line and Remove 230/138 kV Transformer at Ritchie and install a spare 230/138 kV transformer at Buzzard Pt		APS (4.74%) / PEPCO (95.26%)
b1126	Upgrade the 230 kV line from Buzzard 016 – Ritchie 059		APS (4.74%) / PEPCO (95.26%)

Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1592	Reconductor the Oak Grove – Bowie 230 kV circuit and upgrade terminal equipments at Oak Grove and Bowie 230 kV substations		AEC (2.39%) / APS (3.82%) / BGE (65.72%) / DPL (4.43%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.35%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1593	Reconductor the Bowie - Burtonsville 230 kV circuit and upgrade terminal equipments at Bowie and Burtonsville 230 kV substations		AEC (2.39%) / APS (3.82%) / BGE (65.72%) / DPL (4.43%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.35%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1594	Reconductor the Oak Grove – Bowie 230 kV ‘23042’ circuit and upgrade terminal equipments at Oak Grove and Bowie 230 kV substations		AEC (2.38%) / APS (3.84%) / BGE (65.72%) / DPL (4.44%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.33%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1595	Reconductor the Bowie – Burtonsville 230 kV ‘23042’ circuit and upgrade terminal equipments at Oak Grove and Burtonsville 230 kV substations		AEC (2.38%) / APS (3.84%) / BGE (65.72%) / DPL (4.44%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.33%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1596	Reconductor the Dickerson station “H” – Quince Orchard 230 kV ‘23032’ circuit and upgrade terminal equipments at Dickerson station “H” and Quince Orchard 230 kV substations		AEC (0.80%) / BGE (33.68%) / DPL (2.09%) / PECO (3.07%) / PEPCO (60.36%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1597	Reconductor the Oak Grove - Aquasco 230 kV '23062' circuit and upgrade terminal equipments at Oak Grove and Aquasco 230 kV substations		AEC (1.44%) / BGE (48.60%) / DPL (2.52%) / PECO (5.00%) / PEPCO (42.44%)
b2008	Reconductor feeder 23032 and 23034 to high temp. conductor (10 miles)		BGE (33.05%) / DPL (1.38%) / PECO (1.35%) / PEPCO (64.22%) /
b2136	Reconductor the Morgantown - V3-017 230 kV '23086' circuit and replace terminal equipments at Morgantown		PEPCO (100%)
b2137	Reconductor the Morgantown - Talbert 230 kV '23085' circuit and replace terminal equipment at Morgantown		PEPCO (100%)
b2138	Replace terminal equipments at Hawkins 230 kV substation		PEPCO (100%)

SCHEDULE 12 – APPENDIX

(12) Public Service Electric and Gas Company

Required Transmission Enhancements		Annual Revenue Requirement		Responsible Customer(s)
b0025	Convert the Bergen-Leonia 138 Kv <u>kV</u> circuit to 230 kV circuit.			PSEG (100%)
b0090	Add 150 MVAR capacitor at Camden 230 kV			PSEG (100%)
b0121	Add 150 MVAR capacitor at Aldene 230 kV			PSEG (100%)
b0122	Bypass the Essex 138 kV series reactors			PSEG (100%)
b0125	Add Special Protection Scheme at Bridgewater to automatically open 230 kV breaker for outage of Branchburg – Deans 500 kV and Deans 500/230 kV #1 transformer			PSEG (100%)
b0126	Replace wavetrap on Branchburg – Flagtown 230 kV			PSEG (100%)
b0127	Replace terminal equipment to increase Brunswick – Adams – Bennetts Lane 230 kV to conductor rating			PSEG (100%)
b0129	Replace wavetrap on Flagtown – Somerville 230 kV			PSEG (100%)
b0130	Replace all derated Branchburg 500/230 kV transformers			AEC (1.36%) / JCPL (47.76%) / PSEG (50.88%)
b0134	Upgrade or Retension PSEG portion of Kittatinny – Newton 230 Kv circuit			JCPL (51.11%) / PSEG (45.96%) / RE (2.93%)

The Annual Revenue Requirement for all Public Service Electric and Gas Company Projects (Required Transmission Enhancements) in this Section 12 shall be as specified in Attachment 7 of Attachment H-10A and under the procedures detailed in Attachment H-10B.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0145	Build new Essex – Aldene 230 kV cable connected through a phase angle regulator at Essex		PSEG (21.78%) / JCPL (73.45%) / RE (4.77%)
b0157	Add 100 MVAR capacitor at West Orange 138 kV substation		PSEG (100%)
b0158	Close the Sunnymeade "C" and "F" bus tie		PSEG (100%)
b0159	Make the Bayonne reactor permanent installation		PSEG (100%)
b0160	Relocate the X-2250 circuit from Hudson 1-6 bus to Hudson 7-12 bus		PSEG (100%)
b0161	Install 230/138 kV transformer at Metuchen substation		PSEG (99.80%) / RE (0.20%)
b0162	Upgrade the Edison – Meadow Rd 138 kV “Q” circuit		PSEG (100%)
b0163	Upgrade the Edison – Meadow Rd 138 kV “R” circuit		PSEG (100%)
b0169	Build a new 230 kV section from Branchburg – Flagtown and move the Flagtown – Somerville 230 kV circuit to the new section		AEC (1.72%) / JCPL (25.94%) / NEPTUNE* (10.62%) / PSEG (59.59%) / ECP** (2.13%)
b0170	Reconductor the Flagtown-Somerville-Bridgewater 230 kV circuit with 1590 ACSS		JCLP (42.95%) / NEPTUNE* (17.90%) / PSEG (38.36%) RE (0.79%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0172.2	Replace wave trap at Branchburg 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (8.09<u>8.24</u>%) / JCPL (32.99<u>30.19</u>%) / NEPTUNE* (5.38<u>4.85</u>%) / PSEG (51.49<u>54.60</u>%) / RE (2.05<u>2.12</u>%)</p>
b0184	Replace Hudson 230 kV circuit breakers #1-2	PSEG (100%)
b0185	Replace Deans 230 kV circuit breakers #9-10	PSEG (100%)
b0186	Replace Essex 230 kV circuit breaker #5-6	PSEG (100%)
b1082	Install 230/138 kV transformer at Bergen substation	PENELEC (16.52%) / PSEG (80.29%) / RE (3.19%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0201	Branchburg substation: replace wave trap on Branchburg—Readington 230 kV circuit	PSEG (100%)
b0213.1	Replace New Freedom 230 kV breaker BS2-6	PSEG (100%)
b0213.3	Replace New Freedom 230 kV breaker BS2-8	PSEG (100%)
b0274	Replace both 230/138 kV transformers at Roseland	PSEG (96.77%) / ECP** (3.23%)
b0275	Upgrade the two 138 kV circuits between Roseland and West Orange	PSEG (100%)
b0278	Install 228 MVAR capacitor at Roseland 230 kV substation	PSEG (100%)
b0290	Install 400 MVAR capacitor in the Branchburg 500 kV vicinity	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEC (8.09 <u>8.24</u> %) / JCPL (32.99 <u>30.19</u> %) / NEPTUNE* (5.38 <u>4.85</u> %) / PSEG (51.49 <u>54.60</u> %) / RE (2.05 <u>2.12</u> %)
b0358	Reconductor the PSEG portion of Buckingham – Pleasant Valley 230 kV, replace wave trap and	PSEG (100%)

	metering transformer		
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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0368	Reconductor Tosco – G22_MTX 230 kV circuit with 1033 bundled ACSS		PSEG (100%)
b0371	Make the Metuchen 138 kV bus solid and upgrade 6 breakers at the Metuchen substation		PSEG (100%)
b0372	Make the Athenia 138 kV bus solid and upgrade 2 breakers at the Athenia substation		PSEG (100%)
b0395	Replace Hudson 230 kV breaker BS4-5		PSEG (100%)
b0396	Replace Hudson 230 kV breaker BS1-6		PSEG (100%)
b0397	Replace Hudson 230 kV breaker BS3-4		PSEG (100%)
b0398	Replace Hudson 230 kV breaker BS5-6		PSEG (100%)
b0401.1	Replace Roseland 230 kV breaker BS6-7		PSEG (100%)
b0401.2	Replace Roseland 138 kV breaker O-1315		PSEG (100%)
b0401.3	Replace Roseland 138 kV breaker S-1319		PSEG (100%)
b0401.4	Replace Roseland 138 kV breaker T-1320		PSEG (100%)
b0401.5	Replace Roseland 138 kV breaker G-1307		PSEG (100%)
b0401.6	Replace Roseland 138 kV breaker P-1316		PSEG (100%)
b0401.7	Replace Roseland 138 kV breaker 220-4		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0401.8	Replace W. Orange 138 kV breaker 132-4	PSEG (100%)
b0411	Install 4 th 500/230 kV transformer at New Freedom	AEC (47.01%) / JCPL (7.04%) / NEPTUNE* (0.28%) / PECO (23.36%) / PSEG (22.31%)
b0423	Reconductor Readington (2555) – Branchburg (4962) 230 kV circuit w/1590 ACSS	PSEG (100%)
b0424	Replace Readington wavetrapp on Readington (2555) – Roseland (5017) 230 kV circuit	PSEG (100%)
b0425	Reconductor Linden (4996) – Tosco (5190) 230 kV circuit w/1590 ACSS (Assumes operating at 220 degrees C)	PSEG (100%)
b0426	Reconductor Tosco (5190) – G22_MTX5 (90220) 230 kV circuit w/1590 ACSS (Assumes operation at 220 degrees C)	PSEG (100%)
b0427	Reconductor Athenia (4954) – Saddle Brook (5020) 230 kV circuit river section	PSEG (100%)
b0428	Replace Roseland wavetrapp on Roseland (5019) – West Caldwell “G” (5089) 138 kV circuit	PSEG (100%)
b0429	Reconductor Kittatinny (2553) – Newton (2535) 230 kV circuit w/1590 ACSS	JCPL (41.91%) / NEPTUNE* (3.59%) / PSEG (50.59%) / RE (2.23%) / ECP** (1.68%)
b0439	Spare Deans 500/230 kV transformer	PSEG (100%)
b0446.1	Upgrade Bayway 138 kV breaker #2-3	PSEG (100%)
b0446.2	Upgrade Bayway 138 kV breaker #3-4	PSEG (100%)
b0446.3	Upgrade Bayway 138 kV breaker #6-7	PSEG (100%)

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** East Coast Power, L.L.C.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0446.4	Upgrade the breaker associated with TX 132-5 on Linden 138 kV	PSEG (100%)
b0470	Install 138 kV breaker at Roseland and close the Roseland 138 kV buses	PSEG (100%)
b0471	Replace the wave traps at both Lawrence and Pleasant Valley on the Lawrence – Pleasant Vallen 230 kV circuit	PSEG (100%)
b0472	Increase the emergency rating of Saddle Brook – Athenia 230 kV by 25% by adding forced cooling	ECP** (2.06%) / PSEG (94.41%) / RE (3.53%)
b0473	Move the 150 MVAR mobile capacitor from Aldene 230 kV to Lawrence 230 kV substation	PSEG (100%)
b0489	Build new 500 kV transmission facilities from Pennsylvania – New Jersey border at Bushkill to Roseland	Load-Ratio Share Allocation: AEC (1.7 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.1 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)†
		DFAX Allocation: JCPL (39.48 <u>36.99</u> %) / NEPTUNE* (4.03 <u>3.95</u> %) / PSEG (54.33 <u>56.85</u> %) / RE (2.16 <u>2.21</u> %)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

† Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities
associated with the project

~~†† Cost allocations associated with below 500 kV elements of the project~~

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.1	Replace Athenia 230 kV breaker 31H	PSEG (100%)
b0489.2	Replace Bergen 230 kV breaker 10H	PSEG (100%)
b0489.3	Replace Saddlebrook 230 kV breaker 21P	PSEG (100%)
b0489.4	Install two Roseland 500/230 kV transformers as part of the Susquehanna – Roseland 500 kV project	AEC (5.09%) / ComEd (0.29%) / Dayton (0.03%) / DPL (1.76%) / JCPL (32.73%) / NEPTUNE* (6.32%) / PECO (10.04%) / PENELEC (0.56%) / ECP** (0.95%) / PSEG (40.71%) / RE (1.52%) ††
b0489.5	Replace Roseland 230 kV breaker '42H' with 80 kA	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: JCPL (39.4836.99%) / NEPTUNE* (4.033.95%) / PSEG (54.3356.85%) / RE (2.162.21%)</p>

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

††Cost allocations associated with below 500 kV elements of the project

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.6	Replace Roseland 230 kV breaker '51H' with 80 kA	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: JCPL (39.48<u>36.99</u>%) / NEPTUNE* (4.03<u>3.95</u>%) / PSEG (54.33<u>56.85</u>%) / RE (2.16<u>2.21</u>%)</p>
b0489.7	Replace Roseland 230 kV breaker '71H' with 80 kA	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: JCPL (39.48 <u>36.99</u> %) / NEPTUNE* (4.03 <u>3.95</u> %) / PSEG (54.33 <u>56.85</u> %) / RE (2.16 <u>2.21</u> %)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.8	Replace Roseland 230 kV breaker '31H' with 80 kA	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: JCPL (39.48<u>36.99</u>%) / NEPTUNE* (4.03<u>3.95</u>%) / PSEG (54.33<u>56.85</u>%) / RE (2.16<u>2.21</u>%)</p>

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.9	Replace Roseland 230 kV breaker '11H' with 80 kA	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: JCPL (39.4836.99%) / NEPTUNE* (4.033.95%) / PSEG (54.3356.85%) / RE (2.162.21%)</p>
b0489.10	Replace Roseland 230 kV breaker '21H'	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p>

			DFAX Allocation: JCPL (39.48 <u>36.99</u> %) / NEPTUNE* (4.03 <u>3.95</u> %) / PSEG (54.33 <u>56.85</u> %) / RE (2.16 <u>2.21</u> %)
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* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.11	Replace Roseland 230 kV breaker '32H'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: JCPL (39.48<u>36.99</u>%) / NEPTUNE* (4.03<u>3.95</u>%) / PSEG (54.33<u>56.85</u>%) / RE (2.16<u>2.21</u>%)</p>
b0489.12	Replace Roseland 230 kV breaker '12H'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>

			DFAX Allocation: JCPL (39.48 <u>36.99</u> %) / NEPTUNE* (4.03 <u>3.95</u> %) / PSEG (54.33 <u>56.85</u> %) / RE (2.16 <u>2.21</u> %)
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* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.13	Replace Roseland 230 kV breaker '52H'	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: JCPL (39.4836.99%) / NEPTUNE* (4.033.95%) / PSEG (54.3356.85%) / RE (2.162.21%)</p>
b0489.14	Replace Roseland 230 kV breaker '41H'	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p>

			DFAX Allocation: JCPL (39.48 <u>36.99</u> %) / NEPTUNE* (4.03 <u>3.95</u> %) / PSEG (54.33 <u>56.85</u> %) / RE (2.16 <u>2.21</u> %)
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* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.15	Replace Roseland 230 kV breaker '72H'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: JCPL (39.48<u>36.99</u>%) / NEPTUNE* (4.03<u>3.95</u>%) / PSEG (54.33<u>56.85</u>%) / RE (2.16<u>2.21</u>%)</p>
b0498	Loop the 5021 circuit into New Freedom 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (13.46 <u>12.09</u> %) / JCPL (25.00 <u>23.99</u> %) / NEPTUNE* (2.97 <u>2.84</u> %) / PECO (17.71 <u>17.51</u> %) / PSEG (39.30 <u>41.94</u> %) / RE (1.56 <u>1.63</u> %)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0498.1	Upgrade the 20H circuit breaker		PSEG (100%)
b0498.2	Upgrade the 22H circuit breaker		PSEG (100%)
b0498.3	Upgrade the 30H circuit breaker		PSEG (100%)
b0498.4	Upgrade the 32H circuit breaker		PSEG (100%)
b0498.5	Upgrade the 40H circuit breaker		PSEG (100%)
b0498.6	Upgrade the 42H circuit breaker		PSEG (100%)
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River		AEC (1.7 <u>1.67</u> %) / AEP (14.0 <u>13.94</u> %) / APS (5.6 <u>5.64</u> %) / ATSI (8.1 <u>8.02</u> %) / BGE (4.3 <u>4.12</u> %) / ComEd (13.1 <u>13.46</u> %) / Dayton (2.1 <u>2.12</u> %) / DEOK (3.2 <u>3.37</u> %) / DL (1.7 <u>1.76</u> %) / DPL (2.6 <u>2.55</u> %) / Dominion (13.0 <u>12.97</u> %) / EKPC (1.7 <u>1.81</u> %) / JCPL (3.8 <u>4.3.92</u> %) / ME (1.9 <u>1.95</u> %) / NEPTUNE* (0.4 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.2 <u>5.39</u> %) / PENELEC (1.8 <u>1.84</u> %) / PEPCO (3.8 <u>23.71</u> %) / PPL (4.7 <u>24.78</u> %) / PSEG (6.2 <u>16.40</u> %) / RE (0.2 <u>0.27</u> %)
b0565	Install 100 MVAR capacitor at Cox's Corner 230 kV substation		PSEG (100%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0578	Replace Essex 138 kV breaker 4LM (C1355 line to ECRRF)		PSEG (100%)
b0579	Replace Essex 138 kV breaker 1LM (220-1 TX)		PSEG (100%)
b0580	Replace Essex 138 kV breaker 1BM (BS1-3 tie)		PSEG (100%)
b0581	Replace Essex 138 kV breaker 2BM (BS3-4 tie)		PSEG (100%)
b0582	Replace Linden 138 kV breaker 3 (132-7 TX)		PSEG (100%)
b0592	Replace Metuchen 138 kV breaker '2-2 Transfer'		PSEG (100%)
b0664	Reconductor with 2x1033 ACSS conductor		JCPL (36.35%) / NEPTUNE* (18.80%) / PSEG (43.24%) / RE (1.61%)
b0665	Reconductor with 2x1033 ACSS conductor		JCPL (36.35%) / NEPTUNE* (18.80%) / PSEG (43.24%) / RE (1.61%)
b0668	Reconductor with 2x1033 ACSS conductor		JCPL (39.41%) / NEPTUNE* (20.38%) / PSEG (38.76%) / RE (1.45%)
b0671	Replace terminal equipment at both ends of line		PSEG (100%)
b0743	Add a bus tie breaker at Roseland 138 kV		PSEG (100%)
b0812	Increase operating temperature on line for one year to get 925E MVA rating		PSEG (100%)
b0813	Reconductor Hudson – South Waterfront 230 kV circuit		BGE (1.25%) / JCPL (9.92%) / NEPTUNE* (0.87%) / PEPCO (1.11%) / PSEG (83.73%) / RE (3.12%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0814	New Essex – Kearney 138 kV circuit and Kearney 138 kV bus tie	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.1	Replace Kearny 138 kV breaker '1-SHT' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.2	Replace Kearny 138 kV breaker '15HF' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.3	Replace Kearny 138 kV breaker '14HF' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.4	Replace Kearny 138 kV breaker '10HF' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.5	Replace Kearny 138 kV breaker '2HT' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.6	Replace Kearny 138 kV breaker '22HF' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.7	Replace Kearny 138 kV breaker '4HT' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.8	Replace Kearny 138 kV breaker '25HF' with 80 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.9	Replace Essex 138 kV breaker '2LM' with 63 kA breaker and 2.5 cycle contact parting time	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0814.10	Replace Essex 138 kV breaker '1BT' with 63 kA breaker and 2.5 cycle contact parting time	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.11	Replace Essex 138 kV breaker '2PM' with 63 kA breaker and 2.5 cycle contact parting time	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.12	Replace Marion 138 kV breaker '2HM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.13	Replace Marion 138 kV breaker '2LM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.14	Replace Marion 138 kV breaker '1LM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.15	Replace Marion 138 kV breaker '6PM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.16	Replace Marion 138 kV breaker '3PM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.17	Replace Marion 138 kV breaker '4LM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b0814.18	Replace Marion 138 kV breaker '3LM' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.19	Replace Marion 138 kV breaker '1HM' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.20	Replace Marion 138 kV breaker '2PM3' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.21	Replace Marion 138 kV breaker '2PM1' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.22	Replace ECRR 138 kV breaker '903'		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.23	Replace Foundry 138 kV breaker '21P'		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.24	Change the contact parting time on Essex 138 kV breaker '3LM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.25	Change the contact parting time on Essex 138 kV breaker '2BM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b0814.26	Change the contact parting time on Essex 138 kV breaker '1BM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.27	Change the contact parting time on Essex 138 kV breaker '3PM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.28	Change the contact parting time on Essex 138 kV breaker '4LM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.29	Change the contact parting time on Essex 138 kV breaker '1PM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.30	Change the contact parting time on Essex 138 kV breaker '1LM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0829	Build Branchburg to Roseland 500 kV circuit as part of Branchburg – Hudson 500 kV project	AEC (1.711.67 %) / AEP (14.0413.94 %) / APS (5.615.64 %) / ATSI (8.108.02 %) / BGE (4.364.12 %) / ComEd (13.1413.46 %) / Dayton (2.152.12 %) / DEOK (3.233.37 %) / DL (1.731.76 %) / DPL (2.652.55 %) / Dominion (13.0312.97 %) / EKPC (1.771.81 %) / JCPL (3.843.92 %) / ME (1.931.95 %) / NEPTUNE* (0.450.24 %) / OVEC (0.07%) / PECO (5.295.39 %) / PENELEC (1.891.84 %) / PEPCO (3.823.71 %) / PPL (4.724.78 %) / PSEG (6.216.40 %) / RE (0.260.27 %)
b0829.6	Replace Branchburg 500 kV breaker 91X	Load-Ratio Share Allocation: AEC (1.711.67 %) / AEP (14.0413.94 %) / APS (5.615.64 %) / ATSI (8.108.02 %) / BGE (4.364.12 %) / ComEd (13.1413.46 %) / Dayton (2.152.12 %) / DEOK (3.233.37 %) / DL (1.731.76 %) / DPL (2.652.55 %) / Dominion (13.0312.97 %) / EKPC (1.771.81 %) / JCPL (3.843.92 %) / ME (1.931.95 %) / NEPTUNE* (0.450.24 %) / OVEC (0.07%) / PECO (5.295.39 %) / PENELEC (1.891.84 %) / PEPCO (3.823.71 %) / PPL (4.724.78 %) / PSEG (6.216.40 %) / RE (0.260.27 %)
		DFAX Allocation: PSEG (96.1796.26 %) / RE (3.833.74 %)
b0829.9	Replace Branchburg 230 kV breaker 102H	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0829.11	Replace Branchburg 230 kV breaker 32H		PSEG (100%)
b0829.12	Replace Branchburg 230 kV breaker 52H		PSEG (100%)
b0830	Build Roseland - Hudson 500 kV circuit as part of Branchburg – Hudson 500 kV project		AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b0830.1	Replace Roseland 230 kV breaker '82H' with 80 kA		PSEG (100%)
b0830.2	Replace Roseland 230 kV breaker '91H' with 80 kA		PSEG (100%)
b0830.3	Replace Roseland 230 kV breaker '22H' with 80 kA		PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0831	Replace 138/13 kV transformers with 230/13 kV units as part of Branchburg – Hudson 500 kV project	ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0832	Build Hudson 500 kV switching station as part of Branchburg – Hudson 500 kV project	AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b0833	Build Roseland 500 kV switching station as part of Branchburg – Hudson 500 kV project	AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)

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**East Coast Power, L.L.C.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0834	Convert the E-1305/F-1306 to one 230 kV circuit as part of Branchburg – Hudson 500 kV project	ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0835	Build Hudson 230 kV transmission lines as part of Roseland – Hudson 500 kV project as part of Branchburg – Hudson 500 kV project	ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0836	Install transformation at new Hudson 500 kV switching station and perform Hudson 230 kV and 345 kV station work as part of Branchburg – Hudson 500 kV project	ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0882	Replace Hudson 230 kV breaker 1HA with 80 kA	PSEG (100%)
b0883	Replace Hudson 230 kV breaker 2HA with 80 kA	PSEG (100%)
b0884	Replace Hudson 230 kV breaker 3HB with 80 kA	PSEG (100%)
b0885	Replace Hudson 230 kV breaker 4HA with 80 kA	PSEG (100%)
b0886	Replace Hudson 230 kV breaker 4HB with 80 kA	PSEG (100%)
b0889	Replace Bergen 230 kV breaker '21H'	PSEG (100%)
b0890	Upgrade New Freedom 230 kV breaker '21H'	PSEG (100%)
b0891	Upgrade New Freedom 230 kV breaker '31H'	PSEG (100%)
b0899	Replace ECRR 138 kV breaker 901	PSEG (100%)
b0900	Replace ECRR 138 kV breaker 902	PSEG (100%)

**East Coast Power, L.L.C.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1013	Replace Linden 138 kV breaker '7PB'		PSEG (100%)
b1017	Reconductor South Mahwah - Waldwick 345 kV J-3410 circuit		JCPL (29.01%) / NEPTUNE* (2.74%) / PSEG (64.85%) / RE (2.53%) / ECP** (0.87%)
b1018	Reconductor South Mahwah - Waldwick 345 kV K-3411 circuit		JCPL (29.18%) / NEPTUNE* (2.74%) / PSEG (64.68%) / RE (2.53%) / ECP** (0.87%)
b1019.1	Replace wave trap, line disconnect and ground switch at Roseland on the F-2206 circuit		PSEG (100%)
b1019.2	Replace wave trap, line disconnect and ground switch at Roseland on the B-2258 circuit		PSEG (100%)
b1019.3	Replace 1-2 and 2-3 section disconnect and ground switches at Cedar Grove on the F-2206 circuit		PSEG (100%)
b1019.4	Replace 1-2 and 2-3 section disconnect and ground switches at Cedar Grove on the B-2258 circuit		PSEG (100%)
b1019.5	Replace wave trap, line disconnect and ground switch at Cedar Grove on the F-2206 circuit		PSEG (100%)
b1019.6	Replace line disconnect and ground switch at Cedar Grove on the K-2263 circuit		PSEG (100%)

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**East Coast Power, L.L.C.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1019.7	Replace 2-4 and 4-5 section disconnect and ground switches at Clifton on the B-2258 circuit	PSEG (100%)
b1019.8	Replace 1-2 and 2-3 section disconnect and ground switches at Clifton on the K-2263 circuit	PSEG (100%)
b1019.9	Replace line, ground, 230 kV main bus disconnects at Athenia on the B-2258 circuit	PSEG (100%)
b1019.10	Replace wave trap, line, ground 230 kV breaker disconnect and 230 kV main bus disconnects at Athenia on the K-2263 circuit	PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1082.1	Replace Bergen 138 kV breaker '30P' with 80 kA		PSEG (100%)
b1082.2	Replace Bergen 138 kV breaker '80P' with 80 kA		PSEG (100%)
b1082.3	Replace Bergen 138 kV breaker '70P' with 80 kA		PSEG (100%)
b1082.4	Replace Bergen 138 kV breaker '90P' with 63 kA		PSEG (100%)
b1082.5	Replace Bergen 138 kV breaker '50P' with 63 kA		PSEG (100%)
b1082.6	Replace Bergen 230 kV breaker '12H' with 80 kA		PSEG (100%)
b1082.7	Replace Bergen 230 kV breaker '21H' with 80 kA		PSEG (100%)
b1082.8	Replace Bergen 230 kV breaker '11H' with 80 kA		PSEG (100%)
b1082.9	Replace Bergen 230 kV breaker '20H' with 80 kA		PSEG (100%)
b1098	Re-configure the Bayway 138 kV substation and install three new 138 kV breakers		PSEG (100%)
b1099	Build a new 230 kV substation by tapping the Aldene – Essex circuit and install three 230/26 kV transformers, and serve some of the Newark area load from the new station		PSEG (100%)
b1100	Build a new 138 kV circuit from Bayonne to Marion		PSEG (100%)
b1101	Re-configure the Cedar Grove substation with breaker and half scheme and build a new 69 kV circuit from Cedar Grove to Hinchman		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1154	Convert the West Orange 138 kV substation, the two Roseland – West Orange 138 kV circuits, and the Roseland – Sewaren 138 kV circuit from 138 kV to 230 kV	PSEG (96.18%) / RE (3.82%)
b1155	Build a new 230 kV circuit from Branchburg to Middlesex Sw. Rack. Build a new 230 kV substation at Middlesex	JCPL (4.61%) / PSEG (91.75%) / RE (3.64%)
b1155.3	Replace Branchburg 230 kV breaker '81H' with 63 kA	PSEG (100%)
b1155.4	Replace Branchburg 230 kV breaker '72H' with 63 kA	PSEG (100%)
b1155.5	Replace Branchburg 230 kV breaker '61H' with 63 kA	PSEG (100%)
b1155.6	Replace Branchburg 230 kV breaker '41H' with 63 kA	PSEG (100%)
b1156	Convert the Burlington, Camden, and Cuthbert Blvd 138 kV substations, the 138 kV circuits from Burlington to Camden, and the 138 kV circuit from Camden to Cuthbert Blvd. from 138 kV to 230 kV	PSEG (96.18%) / RE (3.82%)
b1156.13	Replace Camden 230 kV breaker '22H' with 80 kA	PSEG (100%)
b1156.14	Replace Camden 230 kV breaker '32H' with 80 kA	PSEG (100%)
b1156.15	Replace Camden 230 kV breaker '21H' with 80 kA	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1156.16	Replace New Freedom 230 kV breaker '50H' with 63 kA		PSEG (100%)
b1156.17	Replace New Freedom 230 kV breaker '41H' with 63 kA		PSEG (100%)
b1156.18	Replace New Freedom 230 kV breaker '51H' with 63 kA		PSEG (100%)
b1156.19	Rebuild Camden 230 kV to 80 kA		PSEG (100%)
b1156.20	Rebuild Burlington 230 kV to 80 kA		PSEG (100%)
b1197.1	Reconductor the PSEG portion of the Burlington – Croydon circuit with 1590 ACSS		PSEG (100%)
b1228	Re-configure the Lawrence 230 kV substation to breaker and half		HTP*** (0.14%) / ECP** (0.22%) / PSEG (95.83%) / RE (3.81%)
b1255	Build a new 69 kV substation (Ridge Road) and build new 69 kV circuits from Montgomery – Ridge Road – Penns Neck/Dow Jones		PSEG (96.18%) / RE (3.82%)
b1304.1	Convert the existing 'D1304' and 'G1307' 138 kV circuits between Roseland – Kearny – Hudson to 230 kV operation		AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1304.2	Expand existing Bergen 230 kV substation and reconfigure the Athenia 230 kV substation to breaker and a half scheme	AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)
b1304.3	Build second 230 kV underground cable from Bergen to Athenia	AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)
b1304.4	Build second 230 kV underground cable from Hudson to South Waterfront	AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1304.5	Replace Athenia 230 kV breaker '21H' with 80 kA		PSEG (100%)
b1304.6	Replace Athenia 230 kV breaker '41H' with 80 kA		PSEG (100%)
b1304.7	Replace South Waterfront 230 kV breaker '12H' with 80 kA		PSEG (100%)
b1304.8	Replace South Waterfront 230 kV breaker '22H' with 80 kA		PSEG (100%)
b1304.9	Replace South Waterfront 230 kV breaker '32H' with 80 kA		PSEG (100%)
b1304.10	Replace South Waterfront 230 kV breaker '52H' with 80 kA		PSEG (100%)
b1304.11	Replace South Waterfront 230 kV breaker '62H' with 80 kA		PSEG (100%)
b1304.12	Replace South Waterfront 230 kV breaker '72H' with 80 kA		PSEG (100%)
b1304.13	Replace South Waterfront 230 kV breaker '82H' with 80 kA		PSEG (100%)
b1304.14	Replace Essex 230 kV breaker '20H' with 80 kA		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1304.15	Replace Essex 230 kV breaker '21H' with 80 kA		PSEG (100%)
b1304.16	Replace Essex 230 kV breaker '10H' with 80 kA		PSEG (100%)
b1304.17	Replace Essex 230 kV breaker '11H' with 80 kA		PSEG (100%)
b1304.18	Replace Essex 230 kV breaker '11HL' with 80 kA		PSEG (100%)
b1304.19	Replace Newport R 230 kV breaker '23H' with 63 kA		PSEG (100%)
b1304.20	Rebuild Athenia 230 kV substation to 80 kA		PSEG (100%)
b1304.21	Rebuild Bergen 230 kV substation to 80 kA		PSEG (100%)
b1398	Build two new parallel underground circuits from Gloucester to Camden		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.1	Install shunt reactor at Gloucester to offset cable charging		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.2	Reconfigure the Cuthbert station to breaker and a half scheme		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.3	Build a second 230 kV parallel overhead circuit from Mickelton – Gloucester		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1398.4	Reconductor the existing Mickleton – Gloucester 230 kV circuit (PSEG portion)		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.7	Reconductor the Camden – Richmond 230 kV circuit (PSEG portion) and upgrade terminal equipments at Camden substations		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.15	Replace Gloucester 230 kV breaker '21H' with 63 kA		PSEG (100%)
b1398.16	Replace Gloucester 230 kV breaker '51H' with 63 kA		PSEG (100%)
b1398.17	Replace Gloucester 230 kV breaker '56H' with 63 kA		PSEG (100%)
b1398.18	Replace Gloucester 230 kV breaker '26H' with 63 kA		PSEG (100%)
b1398.19	Replace Gloucester 230 kV breaker '71H' with 63 kA		PSEG (100%)
b1399	Convert the 138 kV path from Aldene – Springfield Rd. – West Orange to 230 kV		PSEG (96.18%) / RE (3.82%)
b1400	Install 230 kV circuit breakers at Bennetts Ln. “F” and “X” buses		PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1410	Replace Salem 500 kV breaker '11X'	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (96.1796.26%) / RE (3.833.74%)</p>
b1411	Replace Salem 500 kV breaker '12X'	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (96.1796.26%) / RE (3.833.74%)</p>

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1412	Replace Salem 500 kV breaker '20X'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: PSEG (96.17<u>96.26</u>%) / RE (3.83<u>3.74</u>%)</p>
b1413	Replace Salem 500 kV breaker '21X'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: PSEG (96.17<u>96.26</u>%) / RE</p>

			(3.83 <u>3.74</u> %)
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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1414	Replace Salem 500 kV breaker '31X'	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (96.1796.26%) / RE (3.833.74%)</p>
b1415	Replace Salem 500 kV breaker '32X'	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (96.1796.26%) / RE (3.833.74%)</p>

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1539	Replace Tosco 230 kV breaker 'CB1' with 63 kA		PSEG (100%)
b1540	Replace Tosco 230 kV breaker 'CB2' with 63 kA		PSEG (100%)
b1541	Open the Hudson 230 kV bus tie		PSEG (100%)
b1588	Reconductor the Eagle Point - Gloucester 230 kV circuit #1 and #2 with higher conductor rating		JCPL (10.31%) / NEPTUNE* (0.98%) / HTP*** (0.75%) / PECO (30.81%) / ECP** (0.82%) / PSEG (54.17%) / RE (2.16%)
b1589	Re-configure the Kearny 230 kV substation and loop the P-2216-1 (Essex - NJT Meadows) 230 kV circuit		ATSI (8.00%) / HTP*** (20.18%) / PENELEC (7.77%) / PSEG (61.59%) / RE (2.46%)
b1590	Upgrade the PSEG portion of the Camden Richmond 230 kV circuit to six wire conductor and replace terminal equipment at Camden		BGE (3.05%) / ME (0.83%) / HTP*** (0.21%) / PECO (91.36%) / PEPCO (1.93%) / PPL (2.46%) / ECP** (0.16%)
b1749	Advance n1237 (Replace Essex 230 kV breaker '22H' with 80kA)		PSEG (100%)
b1750	Advance n0666.5 (Replace Hudson 230 kV breaker '1HB' with 80 kA (without TRV cap, so actually 63 kA))		PSEG (100%)
b1751	Advance n0666.3 (Replace Hudson 230 kV breaker '2HA' with 80 kA (without TRV cap, so actually 63 kA))		PSEG (100%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1752	Advance n0666.10 (Replace Hudson 230 kV breaker '2HB' with 80 kA (without TRV cap, so actually 63 kA))		PSEG (100%)
b1753	Marion 138 kV breaker '7PM' - delay the relay time to increase the contact parting time to 2.5 cycles		PSEG (100%)
b1754	Marion 138 kV breaker '3PM' - delay the relay time to increase the contact parting time to 2.5 cycles		PSEG (100%)
b1755	Marion 138 kV breaker '6PM' - delay the relay time to increase the contact parting time to 2.5 cycles		PSEG (100%)
b1787	Build a second 230 kV circuit from Cox's Corner - Lumberton		AEC (4.96%) / JCPL (44.20%) / NEPTUNE* (0.53%) / HTP*** (0.15%) / ECP** (0.16%) / PSEG (48.08%) / RE (1.92%)
b2034	Install a reactor along the Kearny - Essex 138 kV line		PSEG (100%)
b2035	Replace Sewaren 138 kV breaker '11P'		PSEG (100%)
b2036	Replace Sewaren 138 kV breaker '21P'		PSEG (100%)
b2037	Replace PVSC 138 kV breaker '452'		PSEG (100%)
b2038	Replace PVSC 138 kV breaker '552'		PSEG (100%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2039	Replace Bayonne 138 kV breaker '11P'		PSEG (100%)
b2139	Reconductor the Mickleton - Gloucester 230 kV parallel circuits with double bundle conductor		PSEG (61.11%) / PECO (36.45%) / RE (2.44%)
b2146	Re-configure the Brunswick 230 kV and 69 kV substations		PSEG (96.16%) / RE (3.84%)
b2151	Construct Jackson Rd. 69 kV substation and loop the Cedar Grove - Hinchmans Ave into Jackson Rd. and construct Hawthorne 69 kV substation and build 69 kV circuit from Hinchmans Ave - Hawthorne - Fair Lawn		PSEG (100%)
b2159	Reconfigure the Linden, Bayway, North Ave, and Passaic Valley S.C. 138 kV substations. Construct and loop new 138 kV circuit to new airport station		PSEG (72.61%) / HTP*** (24.49%) / RE (2.90%)

*Neptune Regional Transmission System, LLC

***Hudson Transmission Partners, LLC

SCHEDULE 12 – APPENDIX

(14) Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0216	Install -100/+525 MVAR dynamic reactive device at Black Oak	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: APS (53.10 <u>39.20</u> %) / <u>BGE</u> (<u>13.05</u> %) / Dominion (36.32 <u>31.49</u> %) / PEPCO (10.58 <u>16.26</u> %)
b0218	Install third Wylie Ridge 500/345 ___kV transformer	As specified under the procedures detailed in Attachment H-18B, Section 1.b
b0220	Upgrade coolers on Wylie Ridge 500/345 kV #7	
b0229	Install fourth Bedington 500/138 kV	

b0230	Install fourth Meadowbrook 500/138 kV	As specified under the procedures detailed in Attachment H-18B, Section 1.b	APS (79.16%) / BGE (3.61%) / DPL (0.86%) / Dominion (11.75%) / ME (0.67%) / PEPCO (3.95%)
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* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0238	Reconductor Doubs – Dickerson and Doubs – Aqueduct 1200 MVA	As specified under the procedures detailed in Attachment H-18B, Section 1.b	BGE (16.66%) / Dominion (33.66%) / PEPCO (49.68%)
b0240	Open the Black Oak #3 500/138 kV transformer for the loss of Hatfield – Back Oak 500 kV line		APS (100%)
b0245	Replacement of the existing 954 ACSR conductor on the Bedington – Nipetown 138 kV line with high temperature/low sag conductor		APS (100%)
b0246	Rebuild of the Double Tollgate – Old Chapel 138 kV line with 954 ACSR conductor	As specified under the procedures detailed in Attachment H-18B, Section 1.b	APS (100%)
b0273	Open both North Shenandoah #3 transformer and Strasburg – Edinburgh 138 kV line for the loss of Mount Storm – Meadowbrook 572 500 kV		APS (100%)
b0322	Convert Lime Kiln substation to 230 kV operation		APS (100%)
b0323	Replace the North Shenandoah 138/115 kV transformer	As specified under the procedures detailed in Attachment H-18B, Section 1.b	APS (100%)

~~* Neptune Regional Transmission System, LLC~~

~~† Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project~~

~~†† Cost allocations associated with below 500 kV elements of the project~~

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0328.2	Build new Meadow Brook – Loudoun 500 kV circuit (20 of 50 miles)	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (4.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: BGE (8.29%) / Dominion (100 <u>79.93</u> %) / <u>PEPCO (11.78%)</u>
b0343	Replace Doubs 500/230 kV transformer #2	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		AEC (1.85%) / BGE (21.49%) / DPL (3.91%) / Dominion (28.86%) / ME (2.97%) / PECO (5.73%) / PEPCO (35.19%)
b0344	Replace Doubs 500/230 kV transformer #3	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		AEC (1.86%) / BGE (21.50%) / DPL (3.91%) / Dominion (28.82%) / ME (2.97%) / PECO (5.74%) / PEPCO (35.20%)
b0345	Replace Doubs 500/230 kV transformer #4	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		AEC (1.85%) / BGE (21.49%) / DPL (3.90%) / Dominion (28.83%) / ME (2.98%) / PECO (5.75%) / PEPCO (35.20%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.1	Build new Mt. Storm – 502 Junction 500 kV circuit	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: APS (78.44 <u>47.31</u> %) / <u>BGE</u> (<u>20.76</u> %) / PEPCO (21.56 <u>31.93</u> %)
b0347.2	Build new Mt. Storm – Meadow Brook 500 kV circuit	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)

			DFAX Allocation: APS (43.43 <u>30.25</u> %) / <u>BGE</u> <u>(8.80%)</u> / Dominion (56.57 <u>46.80</u> %) / <u>PEPCO</u> <u>(14.15%)</u>
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* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.3	Build new 502 Junction 500 kV substation	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (4.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: APS (78.44 <u>47.31</u> %) / <u>BGE</u> (20.76 %) / <u>PEPCO</u> (21.56 <u>31.93</u> %)
b0347.4	Upgrade Meadow Brook 500 kV substation	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (4.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE

			(0.26 <u>0.27</u> %)
			DFAX Allocation: APS (43.43 <u>30.25</u> %) / <u>BGE</u> <u>(8.80%)</u> / Dominion (56.57 <u>46.80</u> %) / <u>PEPCO</u> <u>(14.15%)</u>

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.5	Replace Harrison 500 kV breaker HL-3	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>47.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>
b0347.6	Upgrade (per ABB inspection) breaker HL-6	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: APS (78.4447.31 %) / <u>BGE</u> (20.76 %) / PEPCO (21.56 <u>31.93</u> %)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.7	Upgrade (per ABB inspection) breaker HL-7	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>77.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>
b0347.8	Upgrade (per ABB inspection) breaker HL-8	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: APS (78.44 <u>7.31</u> %) / <u>BGE</u> (20.76 %) / PEPCO (21.56 <u>31.93</u> %)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0347.9	Upgrade (per ABB inspection) breaker HL-10		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>77.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>
b0347.10	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-1		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>77.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.11	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-3	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>7.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>
b0347.12	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-4	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>7.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.13	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-6	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>7.31</u>%) / <u>BGE</u> (<u>20.76</u>%) / PEPCO (21.56<u>31.93</u>%)</p>
b0347.14	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-7	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>7.31</u>%) / <u>BGE</u> (<u>20.76</u>%) / PEPCO (21.56<u>31.93</u>%)</p>

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.15	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-9	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>7.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>
b0347.16	Upgrade (per ABB inspection) Harrison 500 kV breaker 'HL-3'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (78.44<u>7.31</u>%) / BGE (20.76%) / PEPCO (21.56<u>31.93</u>%)</p>

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.17	Replace Meadow Brook 138 kV breaker 'MD-10'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / <u>BGE (8.80%)</u> / <u>Dominion (56.57</u><u>46.80</u>%) / <u>PEPCO (14.15%)</u></p>
b0347.18	Replace Meadow Brook 138 kV breaker 'MD-11'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / <u>BGE (8.80%)</u> / <u>Dominion (56.57</u><u>46.80</u>%) / <u>PEPCO (14.15%)</u></p>

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.19	Replace Meadow Brook 138 kV breaker 'MD-12'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / BGE (8.80%) / Dominion (56.57<u>46.80</u>%) / PEPCO (14.15%)</p>
b0347.20	Replace Meadow Brook 138 kV breaker 'MD-13'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation:</p>

			APS (43.43 <u>30.25</u> %) / <u>BGE (8.80%)</u> <u>/ Dominion (56.57<u>46.80</u>%) /</u> <u>PEPCO (14.15%)</u>
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*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.21	Replace Meadow Brook 138 kV breaker 'MD-14'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / BGE (8.80%) / Dominion (56.57<u>46.80</u>%) / PEPCO (14.15%)</p>
b0347.22	Replace Meadow Brook 138 kV breaker 'MD-15'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation:</p>

			APS (43.43 <u>30.25</u> %) / <u>BGE (8.80%)</u> <u>/ Dominion (56.57<u>46.80</u>%) /</u> <u>PEPCO (14.15%)</u>
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*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.23	Replace Meadow Brook 138 kV breaker 'MD-16'	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: APS (43.43 <u>30.25</u> %) / BGE (8.80 <u>8.80</u> %) / Dominion (56.57 <u>46.80</u> %) / PEPCO (14.15 <u>14.15</u> %)
b0347.24	Replace Meadow Brook 138 kV breaker 'MD-17'	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation:

			APS (43.43 <u>30.25</u> %) / <u>BGE (8.80%)</u> <u>/ Dominion (56.57<u>46.80</u>%) /</u> <u>PEPCO (14.15%)</u>
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*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.25	Replace Meadow Brook 138 kV breaker 'MD-18'	<p>Load-Ratio Share Allocation: AEC (1.7<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.6<u>5.64</u>%) / ATSI (8.1<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / BGE (8.80%) / Dominion (56.57<u>46.80</u>%) / PEPCO (14.15%)</p>
b0347.26	Replace Meadow Brook 138 kV breaker 'MD-22#1 CAP'	<p>Load-Ratio Share Allocation: AEC (1.7<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.6<u>5.64</u>%) / ATSI (8.1<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> ⁰ %)
			DFAX Allocation: APS (43.43 <u>30.25</u> %) / <u>BGE</u> <u>(8.80%)</u> / Dominion (56.57 <u>46.80</u> %) / <u>PEPCO (14.15%)</u>

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.27	Replace Meadow Brook 138 kV breaker 'MD-4'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / <u>BGE (8.80%)</u> / <u>Dominion (56.57</u><u>46.80</u>%) / <u>PEPCO (14.15%)</u></p>
b0347.28	Replace Meadow Brook 138 kV breaker 'MD-5'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / <u>BGE (8.80%)</u> / <u>Dominion (56.57</u><u>46.80</u>%) / <u>PEPCO</u></p>

			(14.15%)
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*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.29	Replace Meadowbrook 138 kV breaker 'MD-6'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / BGE (<u>8.80</u>%) / Dominion (56.57<u>46.80</u>%) / PEPCO (<u>14.15</u>%)</p>
b0347.30	Replace Meadowbrook 138 kV breaker 'MD-7'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / BGE (<u>8.80</u>%) / Dominion (56.57<u>46.80</u>%) / PEPCO (<u>14.15</u>%)</p>

			(14.15%)
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*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.31	Replace Meadowbrook 138 kV breaker 'MD-8'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (43.43<u>30.25</u>%) / <u>BGE (8.80%)</u> / Dominion (56.57<u>46.80</u>%) / <u>PEPCO (14.15%)</u></p>
b0347.32	Replace Meadowbrook 138 kV breaker 'MD-9'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>

			DFAX Allocation: APS (43.43 <u>30.25</u> %) / <u>BGE</u> <u>(8.80%)</u> / Dominion (56.57 <u>46.80</u> %) / <u>PEPCO (14.15%)</u>
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*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0347.33	Replace Meadow Brook 138_kV breaker 'MD-1'		APS (100%)
b0347.34	Replace Meadow Brook 138_kV breaker 'MD-2'		APS (100%)
b0348	Upgrade Stonewall – Inwood 138 kV with 954 ACSR conductor		APS (100%)
b0373	Convert Doubs – Monocacy 138 kV facilities to 230 kV operation		AEC (1.82%) / APS (76.84%) / DPL (2.64%) / JCPL (4.53%) / ME (9.15%) / NEPTUNE* (0.42%) / PPL (4.60%)
b0393	Replace terminal equipment at Harrison 500 kV and Belmont 500 kV		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: APS (61.86 <u>44.89</u> %) / Dayton (11.46 <u>17.18</u> %) / DEOK (20.33 <u>28.83</u> %) / EKPC (6.35 <u>9.10</u> %)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0406.1	Replace Mitchell 138 kV breaker “#4 bank”	APS (100%)
b0406.2	Replace Mitchell 138 kV breaker “#5 bank”	APS (100%)
b0406.3	Replace Mitchell 138 kV breaker “#2 transf	APS (100%)
b0406.4	Replace Mitchell 138 kV breaker “#3 bank”	APS (100%)
b0406.5	Replace Mitchell 138 kV breaker “Charlerio #2”	APS (100%)
b0406.6	Replace Mitchell 138 kV breaker “Charlerio #1”	APS (100%)
b0406.7	Replace Mitchell 138 kV breaker “Shepler Hill Jct”	APS (100%)
b0406.8	Replace Mitchell 138 kV breaker “Union Jct”	APS (100%)
b0406.9	Replace Mitchell 138 kV breaker “#1-2 138 kV bus tie”	APS (100%)
b0407.1	Replace Marlowe 138 kV breaker “#1 transf	APS (100%)
b0407.2	Replace Marlowe 138 kV breaker “MBO”	APS (100%)
b0407.3	Replace Marlowe 138 kV breaker “BMA”	APS (100%)
b0407.4	Replace Marlowe 138 kV breaker “BMR”	APS (100%)
b0407.5	Replace Marlowe 138 kV breaker “WC-1”	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0407.6	Replace Marlowe 138 kV breaker “R11”	APS (100%)
b0407.7	Replace Marlowe 138 kV breaker “W”	APS (100%)
b0407.8	Replace Marlowe 138 kV breaker “138 kV bus tie”	APS (100%)
b0408.1	Replace Trissler 138 kV breaker “Belmont 604”	APS (100%)
b0408.2	Replace Trissler 138 kV breaker “Edgelawn 90”	APS (100%)
b0409.1	Replace Weirton 138 kV breaker “Wylie Ridge 210”	APS (100%)
b0409.2	Replace Weirton 138 kV breaker “Wylie Ridge 216”	APS (100%)
b0410	Replace Glen Falls 138 kV breaker “McAlpin 30”	APS (100%)
b0417	Reconductor Mitchell – Shepler Hill Junction 138 kV with 954 ACSR	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0418	Install a breaker failure auto-restoration scheme at Cabot 500 kV for the failure of the #6 breaker	AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b0419	Install a breaker failure auto-restoration scheme at Bedington 500 kV for the failure of the #1 and #2 breakers	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (100%)</p>
b0420	Operating Procedure to open the Black Oak 500/138 kV transformer #3 for the loss of Hatfield – Ronco 500 kV and the Hatfield #3 Generation	APS (100%)

b0445	Upgrade substation equipment and reconductor the Tidd – Mahans Lane – Weirton 138 kV circuit with 954 ACSR		APS (100%)
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* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0460	Raise limiting structures on Albright – Bethelboro 138 kV to raise the rating to 175 MVA normal 214 MVA emergency	APS (100%)
b0491	Construct an Amos to Welton Spring to WV state line 765 kV circuit (APS equipment)	<p>As specified under the procedures detailed in Attachment H-19B</p> <p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPSCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492	Construct a Welton Spring to Kemptown 765 kV line (APS equipment)	As specified under the procedures detailed in Attachment H-19B
		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
b0492.3	Replace Eastalco 230 kV breaker D-26	APS (100%)
b0492.4	Replace Eastalco 230 kV breaker D-28	APS (100%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.5	Replace Eastalco 230 kV breaker D-31	APS (100%)
b0495	Replace existing Kammer 765/500 kV transformer with a new larger transformer	<p>Load-Ratio Share Allocation: AEC (1.74<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (58.84<u>2.21</u>%) / APS (3.61<u>1.71</u>%) / BGE (16.86<u>45.34</u>%) / Dayton (1.39<u>0.76</u>%) / DEOK (1.98<u>1.02</u>%) / EKPC (0.49<u>0.26</u>%) / PEPCO (16.83<u>48.70</u>%)</p>
b0533	Reconductor the Powell Mountain – Sutton 138 kV line	APS (100%)
b0534	Install a 28.61 MVAR capacitor on Sutton 138 kV	APS (100%)
b0535	Install a 44 MVAR capacitor on Dutch Fork 138 kV	APS (100%)
b0536	Replace Doubs circuit breaker DJ1	APS (100%)
b0537	Replace Doubs circuit breaker DJ7	APS (100%)
b0538	Replace Doubs circuit breaker DJ10	APS (100%)

b0572.1	Reconductor Albright – Mettiki – Williams – Parsons – Loughs Lane 138 kV with 954 ACSR		APS (100%)
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* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0572.2	Reconductor Albright – Mettiki – Williams – Parsons – Loughs Lane 138 kV with 954 ACSR	APS (100%)
b0573	Reconfigure circuits in Butler – Cabot 138 kV area	APS (100%)
b0577	Replace Fort Martin 500 kV breaker FL-1	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (100%)</p>
b0584	Install 33 MVAR 138 kV capacitor at Necessity 138 kV	APS (100%)
b0585	Increase Cecil 138 kV capacitor size to 44 MVAR, replace five 138 kV breakers at Cecil due to increased short circuit fault duty as a result of the addition of the Prexy substation	APS (100%)
b0586	Increase Whiteley 138 kV capacitor size to 44 MVAR	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0587	Reconductor AP portion of Tidd – Carnegie 138 kV and Carnegie – Weirton 138 kV with 954 ACSR	APS (100%)
b0588	Install a 40.8 MVAR 138 kV capacitor at Grassy Falls	APS (100%)
b0589	Replace five 138 kV breakers at Cecil	APS (100%)
b0590	Replace #1 and #2 breakers at Charleroi 138 kV	APS (100%)
b0591	Install a 25.2 MVAR capacitor at Seneca Caverns 138 kV	APS (100%)
b0673	Rebuild Elko – Carbon Center Junction using 230 kV construction	APS (100%)
b0674	Construct new Osage – Whiteley 138 kV circuit	APS (97.68%) / DL (0.96%) / PENELEC (1.09%) / ECP** (0.01%) / PSEG (0.25%) / RE (0.01%)
b0674.1	Replace the Osage 138 kV breaker ‘CollinsF126’	APS (100%)
b0675.1	Convert Monocacy - Walkersville 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.2	Convert Walkersville - Catoctin 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0675.3	Convert Ringgold - Catoctin 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.4	Convert Catoctin - Carroll 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.5	Convert portion of Ringgold Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.6	Convert Catoctin Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.7	Convert portion of Carroll Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.8	Convert Monocacy Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)

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**East Coast Power, L.L.C.

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0675.9	Convert Walkersville Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0676.1	Reconductor Doubs - Lime Kiln (#207) 230 kV	AEC (0.64%) / APS (86.70%) / DPL (0.53%) / JCPL (1.93%) / ME (4.04%) / NEPTUNE* (0.18%) / PECO (1.93%) / PENELEC (0.93%) / PSEG (2.92%) / RE (0.12%) / ECP** (0.08%)
b0676.2	Reconductor Doubs - Lime Kiln (#231) 230 kV	AEC (0.64%) / APS (86.70%) / DPL (0.53%) / JCPL (1.93%) / ME (4.04%) / NEPTUNE* (0.18%) / PECO (1.93%) / PENELEC (0.93%) / PSEG (2.92%) / RE (0.12%) / ECP** (0.08%)
b0677	Reconductor Double Toll Gate – Riverton with 954 ACSR	APS (100%)
b0678	Reconductor Glen Falls - Oak Mound 138 kV with 954 ACSR	APS (100%)
b0679	Reconductor Grand Point – Letterkenny with 954 ACSR	APS (100%)
b0680	Reconductor Greene – Letterkenny with 954 ACSR	APS (100%)
b0681	Replace 600/5 CT's at Franklin 138 kV	APS (100%)
b0682	Replace 600/5 CT's at Whiteley 138 kV	APS (100%)

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**East Coast Power, L.L.C.

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0684	Reconductor Guilford – South Chambersburg with 954 ACSR	APS (100%)
b0685	Replace Ringgold 230/138 kV #3 with larger transformer	APS (71.93%) / JCPL (4.17%) / ME (6.79%) / NEPTUNE* (0.38%) / PECO (4.05%) / PENELEC (5.88%) / ECP** (0.18%) / PSEG (6.37%) / RE (0.25%)
b0704	Install a third Cabot 500/138 kV transformer	APS (74.36%) / DL (2.73%) PENELEC (22.91%)
b0797	Advance n0321 (Replace Doubs Circuit Breaker DJ2)	APS (100%)
b0798	Advance n0322 (Replace Doubs Circuit Breaker DJ3)	APS (100%)
b0799	Advance n0323 (Replace Doubs Circuit Breaker DJ6)	APS (100%)
b0800	Advance n0327 (Replace Doubs Circuit Breaker DJ16)	APS (100%)
b0941	Replace Opequon 138 kV breaker 'BUSTIE'	APS (100%)
b0942	Replace Butler 138 kV breaker '#1 BANK'	APS (100%)
b0943	Replace Butler 138 kV breaker '#2 BANK'	APS (100%)
b0944	Replace Yukon 138 kV breaker 'Y-8'	APS (100%)
b0945	Replace Yukon 138 kV breaker 'Y-3'	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0946	Replace Yukon 138 kV breaker 'Y-1'	APS (100%)
b0947	Replace Yukon 138 kV breaker 'Y-5'	APS (100%)
b0948	Replace Yukon 138 kV breaker 'Y-2'	APS (100%)
b0949	Replace Yukon 138 kV breaker 'Y-19'	APS (100%)
b0950	Replace Yukon 138 kV breaker 'Y-4'	APS (100%)
b0951	Replace Yukon 138 kV breaker 'Y-9'	APS (100%)
b0952	Replace Yukon 138 kV breaker 'Y-11'	APS (100%)
b0953	Replace Yukon 138 kV breaker 'Y-13'	APS (100%)
b0954	Replace Charleroi 138 kV breaker '#1 XFMR BANK'	APS (100%)
b0955	Replace Yukon 138 kV breaker 'Y-7'	APS (100%)
b0956	Replace Pruntytown 138 kV breaker 'P-9'	APS (100%)
b0957	Replace Pruntytown 138 kV breaker 'P-12'	APS (100%)
b0958	Replace Pruntytown 138 kV breaker 'P-15'	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0959 Replace Charleroi 138 kV breaker '#2 XFMR BANK'		APS (100%)
b0960 Replace Pruntytown 138 kV breaker 'P-2'		APS (100%)
b0961 Replace Pruntytown 138 kV breaker 'P-5'		APS (100%)
b0962 Replace Yukon 138 kV breaker 'Y-18'		APS (100%)
b0963 Replace Yukon 138 kV breaker 'Y-10'		APS (100%)
b0964 Replace Pruntytown 138 kV breaker 'P-11'		APS (100%)
b0965 Replace Springdale 138 kV breaker '138E'		APS (100%)
b0966 Replace Pruntytown 138 kV breaker 'P-8'		APS (100%)
b0967 Replace Pruntytown 138 kV breaker 'P-14'		APS (100%)
b0968 Replace Ringgold 138 kV breaker '#3 XFMR BANK'		APS (100%)
b0969 Replace Springdale 138 kV breaker '138C'		APS (100%)
b0970 Replace Rivesville 138 kV breaker '#8 XFMR BANK'		APS (100%)
b0971 Replace Springdale 138 kV breaker '138F'		APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0972	Replace Belmont 138 kV breaker 'B-16'	APS (100%)
b0973	Replace Springdale 138 kV breaker '138G'	APS (100%)
b0974	Replace Springdale 138 kV breaker '138V'	APS (100%)
b0975	Replace Armstrong 138 kV breaker 'BROOKVILLE'	APS (100%)
b0976	Replace Springdale 138 kV breaker '138P'	APS (100%)
b0977	Replace Belmont 138 kV breaker 'B-17'	APS (100%)
b0978	Replace Springdale 138 kV breaker '138U'	APS (100%)
b0979	Replace Springdale 138 kV breaker '138D'	APS (100%)
b0980	Replace Springdale 138 kV breaker '138R'	APS (100%)
b0981	Replace Yukon 138 kV breaker 'Y-12'	APS (100%)
b0982	Replace Yukon 138 kV breaker 'Y-17'	APS (100%)
b0983	Replace Yukon 138 kV breaker 'Y-14'	APS (100%)
b0984	Replace Rivesville 138 kV breaker '#10 XFMR BANK'	APS (100%)
b0985	Replace Belmont 138 kV breaker 'B-14'	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0986	Replace Armstrong 138 kV breaker 'RESERVE BUS'		APS (100%)
b0987	Replace Yukon 138 kV breaker 'Y-16'		APS (100%)
b0988	Replace Springdale 138 kV breaker '138T'		APS (100%)
b0989	Replace Edgelawn 138 kV breaker 'GOFF RUN #632'		APS (100%)
b0990	Change reclosing on Cabot 138 kV breaker 'C-9'		APS (100%)
b0991	Change reclosing on Belmont 138 kV breaker 'B-7'		APS (100%)
b0992	Change reclosing on Belmont 138 kV breaker 'B-12'		APS (100%)
b0993	Change reclosing on Belmont 138 kV breaker 'B-9'		APS (100%)
b0994	Change reclosing on Belmont 138 kV breaker 'B-19'		APS (100%)
b0995	Change reclosing on Belmont 138 kV breaker 'B-21'		APS (100%)
b0996	Change reclosing on Willow Island 138 kV breaker 'FAIRVIEW #84'		APS (100%)
b0997	Change reclosing on Cabot 138 kV breaker 'C-4'		APS (100%)
b0998	Change reclosing on Cabot 138 kV breaker 'C-1'		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0999	Replace Redbud 138 kV breaker 'BUS TIE'	APS (100%)
b1022.1	Reconfigure the Peters to Bethel Park 138 kV line and Elrama to Woodville 138 kV line to create a 138 kV path from Woodville to Peters and a 138 kV path from Elrama to Bethel Park	APS (96.98%) / DL (3.02%)
b1022.3	Add static capacitors at Smith 138 kV	APS (96.98%) / DL (3.02%)
b1022.4	Add static capacitors at North Fayette 138 kV	APS (96.98%) / DL (3.02%)
b1022.5	Add static capacitors at South Fayette 138 kV	APS (96.98%) / DL (3.02%)
b1022.6	Add static capacitors at Manifold 138 kV	APS (96.98%) / DL (3.02%)
b1022.7	Add static capacitors at Houston 138 kV	APS (96.98%) / DL (3.02%)
b1023.1	Install a 500/138 kV transformer at 502 Junction	APS (100%)
b1023.2	Construct a new Franklin - 502 Junction 138 kV line including a rebuild of the Whiteley - Franklin 138 kV line to double circuit	APS (100%)
b1023.3	Construct a new 502 Junction - Osage 138 kV line	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1023.4	Construct Braddock 138 kV breaker station that connects the Charleroi - Gordon 138 kV line, Washington - Franklin 138 kV line and the Washington - Vanceville 138 kV line including a 66 MVAR capacitor	APS (100%)
b1027	Increase the size of the shunt capacitors at Enon 138 kV	APS (100%)
b1028	Raise three structures on the Osage - Collins Ferry 138 kV line to increase the line rating	APS (100%)
b1128	Reconductor the Edgewater – Vasco Tap; Edgewater – Loyalhanna 138 kV lines with 954 ACSR	APS (100%)
b1129	Reconductor the East Waynesboro – Ringgold 138 kV line with 954 ACSR	APS (100%)
b1131	Upgrade Double Tollgate – Meadowbrook MDT Terminal Equipment	APS (100%)
b1132	Upgrade Double Tollgate-Meadowbrook MBG terminal equipment	APS (100%)
b1133	Upgrade terminal equipment at Springdale	APS (100%)
b1135	Reconductor the Bartonville – Meadowbrook 138 kV line with high temperature conductor	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1137 Reconductor the Eastgate – Luxor 138 kV; Eastgate – Sony 138 kV line with 954 ACSR		APS (78.59%) / PENELEC (14.08%) / ECP-** (0.23%) / PSEG (6.83%) / RE (0.27%)
b1138 Reconductor the King Farm – Sony 138 kV line with 954 ACSR		APS (100%)
b1139 Reconductor the Yukon – Waltz Mills 138 kV line with high temperature conductor		APS (100%)
b1140 Reconductor the Bracken Junction – Luxor 138 kV line with 954 ACSR		APS (100%)
b1141 Reconductor the Sewickley – Waltz Mills Tap 138 kV line with high temperature conductor		APS (100%)
b1142 Reconductor the Bartonsville – Stephenson 138 kV; Stonewall – Stephenson 138 kV line with 954 ACSR		APS (100%)
b1143 Reconductor the Youngwood – Yukon 138 kV line with high temperature conductor		APS (89.92%) / PENELEC (10.08%)
b1144 Reconductor the Bull Creek Junction – Cabot 138 kV line with high temperature conductor		APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1145	Reconductor the Lawson Junction – Cabot 138 kV line with high temperature conductor	APS (100%)
b1146	Replace Layton - Smithton #61 138 kV line structures to increase line rating	APS (100%)
b1147	Replace Smith – Yukon 138 kV line structures to increase line rating	APS (100%)
b1148	Reconductor the Loyalhanna – Luxor 138 kV line with 954 ACSR	APS (100%)
b1149	Reconductor the Luxor – Stony Springs Junction 138 kV line with 954 ACSR	APS (100%)
b1150	Upgrade terminal equipment at Social Hall	APS (100%)
b1151	Reconductor the Greenwood – Redbud 138 kV line with 954 ACSR	APS (100%)
b1152	Reconductor Grand Point – South Chambersburg	APS (100%)
b1159	Replace Peters 138 kV breaker ‘Bethel P OCB’	APS (100%)
b1160	Replace Peters 138 kV breaker ‘Cecil OCB’	APS (100%)
b1161	Replace Peters 138 kV breaker ‘Union JctOCB’	APS (100%)
b1162	Replace Double Toll Gate 138 kV breaker ‘DRB-2’	APS (100%)
b1163	Replace Double Toll Gate 138 kV breaker ‘DT 138 kV OCB’	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1164	Replace Cecil 138 kV breaker 'Enlow OCB'		APS (100%)
b1165	Replace Cecil 138 kV breaker 'South Fayette'		APS (100%)
b1166	Replace Wylie Ridge 138 kV breaker 'W-9'		APS (100%)
b1167	Replace Reid 138 kV breaker 'RI-2'		APS (100%)
b1171.1	Install the second Black Oak 500/138 kV transformer, two 138 kV breaker, and related substation work		BGE (20.76%) / DPL (3.14%) / Dominion (39.55%) / ME (2.71%) / PECO (3.36%) / PEPCO (30.48%)
b1171.3	Install six 500 kV breakers and remove BOL1 500 kV breaker at Black Oak		AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b1200	Reconductor Double Toll Gate – Greenwood 138 kV with 954 ACSR conductor		APS (100%)
b1221.1	Convert Carbon Center from 138 kV to a 230 kV ring bus		APS (100%)
b1221.2	Construct Bear Run 230 kV substation with 230/138 kV transformer		APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1221.3	Loop Carbon Center Junction – Williamette line into Bear Run	APS (100%)
b1221.4	Carbon Center – Carbon Center Junction & Carbon Center Junction – Bear Run conversion from 138 kV to 230 kV	APS (100%)
b1230	Reconductor Willow-Eureka & Eureka-St Mary 138 kV lines	APS (100%)
b1232	Reconductor Nipetown – Reid 138 kV with 1033 ACCR	AEC (1.40%) / APS (75.74%) / DPL (1.92%) / JCPL (2.92%) / ME (6.10%) / NEPTUNE* (0.27%) / PECO (4.40%) / PENELEC (3.26%) / PPL (3.99%)
b1233.1	Upgrade terminal equipment at Washington	APS (100%)
b1234	Replace structures between Ridgeway and Paper city	APS (100%)
b1235	Reconductor the Albright – Black Oak AFA 138 kV line with 795 ACSS/TW	APS (30.25%) / BGE (16.10%) / Dominion (30.51%) / PEPCO (23.14%)
b1237	Upgrade terminal equipment at Albright, replace bus and line side breaker disconnects and leads, replace breaker risers, upgrade RTU and line	APS (100%)
b1238	Install a 138 kV 44 MVAR capacitor at Edgelawn substation	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1239	Install a 138 kV 44 MVAR capacitor at Ridgeway substation	APS (100%)
b1240	Install a 138 kV 44 MVAR capacitor at Elko Substation	APS (100%)
b1241	Upgrade terminal equipment at Washington substation on the GE Plastics/DuPont terminal	APS (100%)
b1242	Replace structures between Collins Ferry and West Run	APS (100%)
b1243	Install a 138 kV capacitor at Potter Substation	APS (100%)
b1261	Replace Butler 138 kV breaker '1-2 BUS 138'	APS (100%)
b1383	Install 2nd 500/138 kV transformer at 502 Junction	APS (93.27%) / DL (5.39%) / PENELEC (1.34%)
b1384	Reconductor approximately 2.17 miles of Bedington – Shepherdstown 138 kV with 954 ACSR	APS (100%)
b1385	Reconductor Halfway – Paramount 138 kV with 1033 ACCR	APS (100%)
b1386	Reconductor Double Tollgate – Meadow Brook 138 kV ckt 2 with 1033 ACCR	APS (93.33%) / BGE (3.39%) / PEPCO (3.28%)
b1387	Reconductor Double Tollgate – Meadow Brook 138 kV	APS (93.33%) / BGE (3.39%) / PEPCO (3.28%)
b1388	Reconductor Feagans Mill – Millville 138 kV with 954 ACSR	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1389	Reconductor Bens Run – St. Mary’s 138 kV with 954 ACSR	AEP (12.40%) / APS (17.80%) / DL (69.80%)
b1390	Replace Bus Tie Breaker at Opequon	APS (100%)
b1391	Replace Line Trap at Gore	APS (100%)
b1392	Replace structure on Belmont – Trissler 138 kV line	APS (100%)
b1393	Replace structures Kingwood – Pruntytown 138 kV line	APS (100%)
b1395	Upgrade Terminal Equipment at Kittanning	APS (100%)
b1401	Change reclosing on Pruntytown 138 kV breaker ‘P-16’ to 1 shot at 15 seconds	APS (100%)
b1402	Change reclosing on Rivesville 138 kV breaker ‘Pruntytown #34’ to 1 shot at 15 seconds	APS (100%)
b1403	Change reclosing on Yukon 138 kV breaker ‘Y21 Shepler’ to 1 shot at 15 seconds	APS (100%)
b1404	Replace the Kiski Valley 138 kV breaker ‘Vandergrift’ with a 40 kA breaker	APS (100%)
b1405	Change reclosing on Armstrong 138 kV breaker ‘GARETTRJCT’ at 1 shot at 15 seconds	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1406	Change reclosing on Armstrong 138 kV breaker 'KITTANNING' to 1 shot at 15 seconds	APS (100%)
b1407	Change reclosing on Armstrong 138 kV breaker 'BURMA' to 1 shot at 15 seconds	APS (100%)
b1408	Replace the Weirton 138 kV breaker 'Tidd 224' with a 40 kA breaker	APS (100%)
b1409	Replace the Cabot 138 kV breaker 'C9 Kiski Valley' with a 40 kA breaker	APS (100%)
b1507.2	Terminal Equipment upgrade at Doubs substation	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: APS (21.3720.09%) / BGE (9.6313.46%) / Dominion (59.6052.77%) / PEPCO (9.4013.68%)</p>

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1507.3	Mt. Storm – Doubs transmission line rebuild in Maryland – Total line mileage for APS is 2.71 miles	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: APS (21.37 <u>20.09</u> %) / BGE (9.63 <u>13.46</u> %) / Dominion (59.60 <u>52.77</u> %) / PEPCO (9.40 <u>13.68</u> %)
b1510	Install 59.4 MVAR capacitor at Waverly	APS (100%)
b1672	Install a 230 kV breaker at Carbon Center	APS (100%)
b0539	Replace Doubs circuit breaker DJ11	APS (100%)
b0540	Replace Doubs circuit breaker DJ12	APS (100%)
b0541	Replace Doubs circuit breaker DJ13	APS (100%)
b0542	Replace Doubs circuit breaker DJ20	APS (100%)
b0543	Replace Doubs circuit breaker DJ21	APS (100%)
b0544	Remove instantaneous reclose from Eastalco	APS (100%)

	circuit breaker D-26		
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* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0545	Remove instantaneous reclose from Eastalco circuit breaker D-28	APS (100%)
b0559	Install 200 MVAR capacitor at Meadow Brook 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: APS (43.4330.25%) / BGE (8.80%) / Dominion (56.5746.80%) / PEPCO (14.15%)</p>
b0560	Install 250 MVAR capacitor at Kemptown 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) /</p>

			DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
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* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1803	Build a 300 MVAR Switched Shunt at Doubs 500 kV and increase (~50 MVAR) in size the existing Switched Shunt at Doubs 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (21.37<u>20.09</u>%) / BGE (9.63<u>13.46</u>%) / Dominion (59.60<u>52.77</u>%) / PEPCO (9.40<u>13.68</u>%)</p>
b1804	Install a new 600 MVAR SVC at Meadowbrook 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: APS (43.43 <u>30.25</u> %) / <u>BGE</u> <u>(8.80%)</u> / Dominion (56.57 <u>46.80</u> %) / <u>PEPCO (14.15%)</u>
b1816.1	Replace relaying at the Mt. Airy substation on the Carroll - Mt. Airy 230 kV line		APS (100%)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1816.2	Adjust the control settings of all existing capacitors at Mt Airy 34.5 kV, Monocacy 138 kV, Ringgold 138 kV served by Potomac Edison's Eastern 230 kV network to ensure that all units will be on during the identified N-1-1 contingencies	APS (100%)
b1816.3	Replace existing unidirectional LTC controller on the No. 4, 230/138 kV transformer at Carroll substation with a bidirectional unit	APS (100%)
b1816.4	Isolate and bypass the 138 kV reactor at Germantown Substation	APS (100%)
b1816.6	Replace 336.4 ACSR conductor on the Catoctin - Carroll 138 kV line using 556.5 ACSR (26/7) or equivalent on existing structures (12.7 miles), 800 A wave traps at Carroll and Catoctin with 1200 A units, and 556.5 ACSR SCCIR (Sub-conductor) line risers and bus traps with 795 ACSR or equivalent	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1822	Replace the 1200 A wave trap, line risers, breaker risers with 1600 A capacity terminal equipment at Reid 138 kV SS		APS (100%)
b1823	Replace the 800 A wave trap with a 1200 A wave trap at Millville 138 kV substation		APS (100%)
b1824	Reconductor Grant Point - Guilford 138 kV line approximately 8 miles of 556 ACSR with 795 ACSR		APS (100%)
b1825	Replace the 800 Amp line trap at Butler 138 kV Sub on the Cabot East 138 kV line		APS (100%)
b1826	Change the CT ratio at Double Toll Gate 138 kV SS on MDT line		APS (100%)
b1827	Change the CT ratio at Double Toll Gate 138 kV SS on MBG line		APS (100%)
b1828.1	Reconductor the Bartonville – Stephenson 3.03 mile 138 kV line of 556 ACSR with 795 ACSR		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1828.2	Reconductor the Stonewall – Stephenson 2.08 mile 138 kV line of 556 ACSR with 795 ACSR	APS (100%)
b1829	Replace the existing 138 kV 556.5 ACSR substation conductor risers with 954 ACSR at the Redbud 138 kV substation, including but not limited to the line side disconnect leads	APS (100%)
b1830	Replace 1200 A wave trap and 1024 ACAR breaker risers at Halfway 138 kV substation, and replace 1024 ACAR breaker risers at Paramount 138 kV substation	APS (100%)
b1832	Replace the 1200 A line side and bus side disconnect switches with 1600 A switches, replace bus side, line side, and disconnect leads at Lime Kiln SS on the Doubs - Lime Kiln 1 (207) 230 kV line terminal	APS (100%)
b1833	Replace the 1200 A line side and bus side disconnect switches with 1600 A switches, replace bus side, line side, and disconnect leads at Lime Kiln SS on the Doubs - Lime Kiln 2 (231) 230 kV line terminal	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1835	Reconductor 14.3 miles of 556 ACSR with 795 ACSR from Old Chapel to Millville 138 kV and upgrade line risers at Old Chapel 138 kV and Millville 138 kV and replace 1200 A wave trap at Millville 138 kV	APS (37.68%) / Dominion (34.46%) / PEPCO (13.69%) / BGE (11.45%) / ME (2.01%) / PENELEC (0.53%) / DL (0.18%)
b1836	Replace 1200 A wave trap with 1600 A wave trap at Reid 138 kV SS	APS (100%)
b1837	Replace 750 CU breaker risers with 795 ACSR at Marlowe 138 kV and replace 1200 A wave traps with 1600 A wave traps at Marlowe 138 kV and Bedington 138 kV	APS (100%)
b1838	Replace the 1200 A Bedington 138 kV line air switch and the 1200 A 138 kV bus tie air switch at Nipetown 138 kV with 1600 A switches	APS (100%)
b1839	Install additional 33 MVAR capacitors at Grand Point 138 kV SS and Guildford 138 kV SS	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1840	Construct a 138 kV line between Buckhannon and Weston 138 kV substations	APS (100%)
b1902	Replace line trap at Stonewall on the Stephenson 138 kV line terminal	APS (100%)
b1941	Loop the Homer City- Handsome Lake 345 kV line into the Armstrong substation and install a 345/138 kV transformer at Armstrong	APS (67.86%) / PENELEC (32.14%)
b1942	Change the CT ratio at Millville to improve the Millville – Old Chapel 138 kV line ratings	APS (100%)
b1964	Convert Moshannon substation to a 4 breaker 230 kV ring bus	APS (41.06%) / DPL (6.68%) / JCPL (5.48%) / ME (10.70%) / NEPTUNE* (0.53%) / PECO (15.53%) / PPL (20.02%)
b1965	Install a 44 MVAR 138 kV capacitor at Luxor substation	APS (100%)
b1986	Upgrade the AP portion of the Elrama – Mitchell 138 kV line by replace breaker risers on the Mitchell 138 kV bus on the Elrama terminal	APS (100%)
b1987	Reconductor the Osage-Collins Ferry 138 kV line with 795 ACSS. Upgrade terminal equipment at Osage and Collins Ferry	APS (100%)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1988	Raise structures between Lake Lynn and West Run to eliminate the clearance de-rates on the West Run – Lake Lynn 138 kV line		APS (100%)
b1989	Raise structures between Collins Ferry and West Run to eliminate the clearance de-rates on the Collins Ferry - West Run 138 kV line		APS (100%)
b2095	Replace Weirt 138 kV breaker 'S-TORONTO226' with 63 kA rated breaker		APS (100%)
b2096	Revise the reclosing of Weirt 138 kV breaker '2&5 XFMR'		APS (100%)
b2097	Replace Ridgeley 138 kV breaker '#2 XFMR OCB'		APS (100%)
b2098	Revise the reclosing of Ridgeley 138 kV breaker 'AR3' with 40 kA rated breaker		APS (100%)
b2099	Revise the reclosing of Ridgeley 138 kV breaker 'RC1'		APS (100%)
b2100	Replace Ridgeley 138 kV breaker 'WC4' with 40 kA rated breaker		APS (100%)
b2101	Replace Ridgeley 138 kV breaker '1 XFMR OCB' with 40 kA rated breaker		APS (100%)
b2102	Replace Armstrong 138 kV breaker 'GARETTRJCT' with 40 kA rated breaker		APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2103	Replace Armstrong 138 kV breaker 'BURMA' with 40 kA rated breaker		APS (100%)
b2104	Replace Armstrong 138 kV breaker 'KITANNING' with 40 kA rated breaker		APS (100%)
b2105	Replace Armstrong 138 kV breaker 'KISSINGERJCT' with 40 kA rated breaker		APS (100%)
b2106	Replace Wylie Ridge 345 kV breaker 'WK-1' with 63 kA rated breaker		APS (100%)
b2107	Replace Wylie Ridge 345 kV breaker 'WK-2' with 63 kA rated breaker		APS (100%)
b2108	Replace Wylie Ridge 345 kV breaker 'WK-3' with 63 kA rated breaker		APS (100%)
b2109	Replace Wylie Ridge 345 kV breaker 'WK-4' with 63 kA rated breaker		APS (100%)
b2110	Replace Wylie Ridge 345 kV breaker 'WK-6' with 63 kA rated breaker		APS (100%)
b2111	Replace Wylie Ridge 138 kV breaker 'WK-7' with 63 kA rated breaker		APS (100%)
b2112	Replace Wylie Ridge 345 kV breaker 'WK-5'		APS (100%)
b2113	Replace Weirton 138 kV breaker 'NO 6 XFMR' with 63 kA rated breaker		APS (100%)
b2114	Replace Armstrong 138 kV breaker 'Bus-Tie' (Status On-Hold pending retirement)		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2124.1	Add a new 138 kV line exit		APS (100%)
b2124.2	Construct a 138 kV ring bus and install a 138/69 kV autotransformer		APS (100%)
b2124.3	Add new 138 kV line exit and install a 138/25 kV transformer		APS (100%)
b2124.4	Construct approximately 5.5 miles of 138 kV line		APS (100%)
b2124.5	Convert approximately 7.5 miles of 69 kV to 138 kV		APS (100%)
b2156	Install a 75 MVAR 230 kV capacitor at Shingletown Substation		APS (100%)
b2165	Replace 800A wave trap at Stonewall with a 1200 A wave trap		APS (100%)
b2166	Reconductor the Millville – Sleepy Hollow 138 kV 4.25 miles of 556 ACSR with 795 ACSR, upgrade line risers at Sleepy Hollow, and change 1200 A CT tap at Millville to 800		APS (100%)
b2168	For Grassy Falls 138 kV Capacitor bank adjust turn-on voltage to 1.0 pu with a high limit of 1.04 pu, For Crupperneck and Powell Mountain 138 kV Capacitor Banks adjust turn-on voltage to 1.01 pu with a high limit of 1.035 pu		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2169	Replace/Raise structures on the Yukon-Smithton 138 kV line section to eliminate clearance de-rate	
b2170	Replace/Raise structures on the Smithton-Shepler Hill Jct 138 kV line section to eliminate clearance de-rate	APS (100%)
b2171	Replace/Raise structures on the Parsons-William 138 kV line section to eliminate clearance de-rate	APS (100%)
b2172	Replace/Raise structures on the Parsons - Loughs Lane 138 kV line section to eliminate clearance de-rate	APS (100%)

SCHEDULE 12 – APPENDIX

- (17) **American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0318	Install a 765/138 kV transformer at Amos	AEP (99.00%) / PEPCO (1.00%)
b0324	Replace entrance conductors, wave traps, and risers at the Tidd 345 kV station on the Tidd – Canton Central 345 kV circuit	AEP (100%)
b0447	Replace Cook 345 kV breaker M2	AEP (100%)
b0448	Replace Cook 345 kV breaker N2	AEP (100%)
b0490	Construct an Amos – Bedington 765 kV circuit (AEP equipment)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) /</p>

			PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
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* Neptune Regional Transmission System, LLC

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.2	Replace Amos 138 kV breaker 'B'	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

*Neptune Regional Transmission System, LLC

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.3	Replace Amos 138 kV breaker 'B1'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.44<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.4	Replace Amos 138 kV breaker 'C'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.44<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.5	Replace Amos 138 kV breaker 'C1'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.6	Replace Amos 138 kV breaker 'D'	Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.7	Replace Amos 138 kV breaker 'D2'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.8	Replace Amos 138 kV breaker 'E'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.44<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.9	Replace Amos 138 kV breaker 'E2'	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0504	Add two advanced technology circuit breakers at Hanging Rock 765 kV to improve operational performance	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (100%)</p>
b0570	Reconductor East Side Lima – Sterling 138 kV	AEP (41.99%) / ComEd (58.01%)
b0571	Reconductor West Millersport – Millersport 138 kV	AEP (73.83%) / ComEd (19.26%) / Dayton (6.91%)
b0748	Establish a new 69 kV circuit between the Canal Road and East Wooster stations, establish a new 69 kV circuit between the West Millersburg and Moreland Switch stations (via Shreve), add reactive support via cap banks	AEP (100%)
b0838	Hazard Area 138 kV and 69 kV Improvement Projects	AEP (100%)
b0839	Replace existing 450 MVA transformer at Twin Branch 345 / 138 kV with a 675 MVA transformer	AEP (99.73%) / Dayton (0.27%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0840	String a second 138 kV circuit on the open tower position between Twin Branch and East Elkhart	AEP (100%)
b0840.1	Establish a new 138/69-34.5 kV Station to interconnect the existing 34.5 kV network	AEP (100%)
b0917	Replace Baileysville 138 kV breaker 'P'	AEP (100%)
b0918	Replace Riverview 138 kV breaker '634'	AEP (100%)
b0919	Replace Torrey 138 kV breaker 'W'	AEP (100%)
b1032.1	Construct a new 345/138kV station on the Marquis-Bixby 345 kV line near the intersection with Ross - Highland 69 kV	AEP (89.97%) / Dayton (10.03%)
b1032.2	Construct two 138 kV outlets to Delano 138 kV station and to Camp Sherman station	AEP (89.97%) / Dayton (10.03%)
b1032.3	Convert Ross - Circleville 69kV to 138 kV	AEP (89.97%) / Dayton (10.03%)
b1032.4	Install 138/69 kV transformer at new station and connect in the Ross - Highland 69 kV line	AEP (89.97%) / Dayton (10.03%)
b1033	Add a third delivery point from AEP's East Danville Station to the City of Danville.	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1034.1	Establish new South Canton - West Canton 138 kV line (replacing Torrey - West Canton) and Wagenhals – Wayview 138 kV	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.2	Loop the existing South Canton - Wayview 138 kV circuit in-and-out of West Canton	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.3	Install a 345/138 kV 450 MVA transformer at Canton Central	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.4	Rebuild/reconductor the Sunnyside - Torrey 138 kV line	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.5	Disconnect/eliminate the West Canton 138 kV terminal at Torrey Station	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.6	Replace all 138 kV circuit breakers at South Canton Station and operate the station in a breaker and a half configuration	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.7	Replace all obsolete 138 kV circuit breakers at the Torrey and Wagenhals stations	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1034.8	Install additional 138 kV circuit breakers at the West Canton, South Canton, Canton Central, and Wagenhals stations to accommodate the new circuits	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1035	Establish a third 345 kV breaker string in the West Millersport Station. Construct a new West Millersport – Gahanna 138 kV circuit. Miscellaneous improvements to 138 kV transmission system.	AEP (100%)
b1036	Upgrade terminal equipment at Poston Station and update remote end relays	AEP (100%)
b1037	Sag check Bonsack–Cloverdale 138 kV, Cloverdale–Centerville 138 kV, Centerville–Ivy Hill 138 kV, Ivy Hill–Reusens 138 kV, Bonsack–Reusens 138 kV and Reusens–Monel–Gomingo–Joshua Falls 138 kV.	AEP (100%)
b1038	Check the Crooksville - Muskingum 138 kV sag and perform the required work to improve the emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1039 Perform a sag study for the Madison – Cross Street 138 kV line and perform the required work to improve the emergency rating		AEP (100%)
b1040 Rebuild an 0.065 mile section of the New Carlisle – Olive 138 kV line and change the 138 kV line switches at New Carlisle		AEP (100%)
b1041 Perform a sag study for the Moseley - Roanoke 138 kV to increase the emergency rating		AEP (100%)
b1042 Perform sag studies to raise the emergency rating of Amos – Poca 138 kV		AEP (100%)
b1043 Perform sag studies to raise the emergency rating of Turner - Ruth 138 kV		AEP (100%)
b1044 Perform sag studies to raise the emergency rating of Kenova – South Point 138 kV		AEP (100%)
b1045 Perform sag studies of Tri State - Darrah 138 kV		AEP (100%)
b1046 Perform sag study of Scottsville – Bremo 138 kV to raise the emergency rating		AEP (100%)
b1047 Perform sag study of Otter Switch - Altavista 138 kV to raise the emergency rating		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1048	Reconductor the Bixby - Three C - Groves and Bixby - Groves 138 kV tower line	AEP (100%)
b1049	Upgrade the risers at the Riverside station to increase the rating of Benton Harbor – Riverside 138 kV	AEP (100%)
b1050	Rebuilding and reconductor the Bixby – Pickerington Road - West Lancaster 138 kV line	AEP (100%)
b1051	Perform a sag study for the Kenzie Creek – Pokagon 138 kV line and perform the required work to improve the emergency rating	AEP (100%)
b1052	Unsix-wire the existing Hyatt - Sawmill 138 kV line to form two Hyatt - Sawmill 138 kV circuits	AEP (100%)
b1053	Perform a sag study and remediation of 32 miles between Claytor and Matt Funk.	AEP (100%)
b1091	Add 28.8 MVAR 138 kV capacitor bank at Huffman and 43.2 MVAR 138 kV Bank at Jubal Early and 52.8 MVAR 138 kV Bank at Progress Park Stations	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1092	Add 28.8 MVAR 138 kV capacitor bank at Sullivan Gardens and 52.8 MVAR 138 kV Bank at Reedy Creek Stations	AEP (100%)
b1093	Add a 43.2 MVAR capacitor bank at the Morgan Fork 138 kV Station	AEP (100%)
b1094	Add a 64.8 MVAR capacitor bank at the West Huntington 138 kV Station	AEP (100%)
b1108	Replace Ohio Central 138 kV breaker 'C2'	AEP (100%)
b1109	Replace Ohio Central 138 kV breaker 'D1'	AEP (100%)
b1110	Replace Sporn A 138 kV breaker 'J'	AEP (100%)
b1111	Replace Sporn A 138 kV breaker 'J2'	AEP (100%)
b1112	Replace Sporn A 138 kV breaker 'L'	AEP (100%)
b1113	Replace Sporn A 138 kV breaker 'L1'	AEP (100%)
b1114	Replace Sporn A 138 kV breaker 'L2'	AEP (100%)
b1115	Replace Sporn A 138 kV breaker 'N'	AEP (100%)
b1116	Replace Sporn A 138 kV breaker 'N2'	AEP (100%)
b1227	Perform a sag study on Altavista – Leesville 138 kV circuit	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1231 Replace the existing 138/69-12 kV transformer at West Moulton Station with a 138/69 kV transformer and a 69/12 kV transformer		AEP (96.69%) / Dayton (3.31%)
b1375 Replace Roanoke 138 kV breaker 'T'		AEP (100%)
b1376 Replace Roanoke 138 kV breaker 'E'		AEP (100%)
b1377 Replace Roanoke 138 kV breaker 'F'		AEP (100%)
b1378 Replace Roanoke 138 kV breaker 'G'		AEP (100%)
b1379 Replace Roanoke 138 kV breaker 'B'		AEP (100%)
b1380 Replace Roanoke 138 kV breaker 'A'		AEP (100%)
b1381 Replace Olive 345 kV breaker 'E'		AEP (100%)
b1382 Replace Olive 345 kV breaker 'R2'		AEP (100%)
b1416 Perform a sag study on the Desoto – Deer Creek 138 kV line to increase the emergency rating		AEP (100%)
b1417 Perform a sag study on the Delaware – Madison 138 kV line to increase the emergency rating		AEP (100%)
b1418 Perform a sag study on the Rockhill – East Lima 138 kV line to increase the emergency rating		AEP (100%)

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Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1419	Perform a sag study on the Findlay Center – Fostoria Ctl 138 kV line to increase the emergency rating		AEP (100%)
b1420	A sag study will be required to increase the emergency rating for this line. Depending on the outcome of this study, more action may be required in order to increase the rating		AEP (100%)
b1421	Perform a sag study on the Sorenson – McKinley 138 kV line to increase the emergency rating		AEP (100%)
b1422	Perform a sag study on John Amos – St. Albans 138 kV line to allow for operation up to its conductor emergency rating		AEP (100%)
b1423	A sag study will be performed on the Chemical – Capitol Hill 138 kV line to determine if the emergency rating can be utilized		AEP (100%)
b1424	Perform a sag study for Benton Harbor – West Street – Hartford 138 kV line to improve the emergency rating		AEP (100%)
b1425	Perform a sag study for the East Monument – East Danville 138 kV line to allow for operation up to the conductor’s maximum operating temperature		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1426	Perform a sag study for the Reusens – Graves 138 kV line to allow for operation up to the conductor’s maximum operating temperature	AEP (100%)
b1427	Perform a sag study on Smith Mountain – Leesville – Altavista – Otter 138 kV and on Boones – Forest – New London – JohnsMT – Otter	AEP (100%)
b1428	Perform a sag study on Smith Mountain – Candler’s Mountain 138 kV and Joshua Falls – Cloverdale 765 kV to allow for operation up to	AEP (100%)
b1429	Perform a sag study on Fremont – Clinch River 138 kV to allow for operation up to its conductor emergency ratings	AEP (100%)
b1430	Install a new 138 kV circuit breaker at Benton Harbor station and move the load from Watervliet 34.5 kV station to West street 138 kV	AEP (100%)
b1432	Perform a sag study on the Kenova – Tri State 138 kV line to allow for operation up to their conductor emergency rating	AEP (100%)
b1433	Replace risers in the West Huntington Station to increase the line ratings which would eliminate the overloads for the contingencies listed	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1434 Perform a sag study on the line from Desoto to Madison. Replace bus and risers at Daleville station and replace bus and risers at Madison		AEP (100%)
b1435 Replace the 2870 MCM ACSR riser at the Sporn station		AEP (100%)
b1436 Perform a sag study on the Sorenson – Illinois Road 138 kV line to increase the emergency MOT for this line. Replace bus and risers at Illinois Road		AEP (100%)
b1437 Perform sag study on Rock Cr. – Hummel Cr. 138 kV to increase the emergency MOT for the line, replace bus and risers at Huntington J., and replace relays for Hummel Cr. – Hunt – Soren. Line at Soren		AEP (100%)
b1438 Replacement of risers at McKinley and Industrial Park stations and performance of a sag study for the 4.53 miles of 795 ACSR section is expected to improve the Summer Emergency rating to 335 MVA		AEP (100%)
b1439 By replacing the risers at Lincoln both the Summer Normal and Summer Emergency ratings will improve to 268 MVA		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1440	By replacing the breakers at Lincoln the Summer Emergency rating will improve to 251 MVA	AEP (100%)
b1441	Replacement of risers at South Side and performance of a sag study for the 1.91 miles of 795 ACSR section is expected to improve the Summer Emergency rating to 335 MVA	AEP (100%)
b1442	Replacement of 954 ACSR conductor with 1033 ACSR and performance of a sag study for the 4.54 miles of 2-636 ACSR section is expected	AEP (100%)
b1443	Station work at Thelma and Busseyville Stations will be performed to replace bus and risers	AEP (100%)
b1444	Perform electrical clearance studies on Clinch River – Clinchfield 139 kV line (a.k.a. sag studies) to determine if the emergency ratings can be utilized	AEP (100%)
b1445	Perform a sag study on the Addison (Buckeye CO-OP) – Thinever and North Crown City – Thivener 138 kV sag study and switch	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1446	Perform a sag study on the Parkersburg (Allegheny Power) – Belpre (AEP) 138 kV	AEP (100%)
b1447	Dexter – Elliot tap 138 kV sag check	AEP (100%)
b1448	Dexter – Meigs 138 kV Electrical Clearance Study	AEP (100%)
b1449	Meigs tap – Rutland 138 kV sag check	AEP (100%)
b1450	Muskingum – North Muskingum 138 kV sag check	AEP (100%)
b1451	North Newark – Sharp Road 138 kV sag check	AEP (100%)
b1452	North Zanesville – Zanesville 138 kV sag check	AEP (100%)
b1453	North Zanesville – Powelson and Ohio Central – Powelson 138 kV sag check	AEP (100%)
b1454	Perform an electrical clearance study on the Ross – Delano – Scioto Trail 138 kV line to determine if the emergency rating can be utilized	AEP (100%)
b1455	Perform a sag check on the Sunny – Canton Central – Wagenhals 138 kV line to determine if all circuits can be operated at their summer emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1456	The Tidd – West Bellaire 345 kV circuit has been de-rated to its normal rating and would need an electrical clearance study to determine if the emergency rating can be utilized	AEP (100%)
b1457	The Tiltonsville – Windsor 138 kV circuit has been derated to its normal rating and would need an electrical clearance study to determine if the emergency rating could be utilized	AEP (100%)
b1458	Install three new 345 kV breakers at Bixby to separate the Marquis 345 kV line and transformer #2. Operate Circleville – Harrison 138 kV and Harrison – Zuber 138 kV up to conductor emergency ratings	AEP (100%)
b1459	Several circuits have been de-rated to their normal conductor ratings and could benefit from electrical clearance studies to determine if the emergency rating could be utilized	AEP (100%)
b1460	Replace 2156 & 2874 risers	AEP (100%)
b1461	Replace meter, metering CTs and associated equipment at the Paden City feeder	AEP (100%)
b1462	Replace relays at both South Cadiz 138 kV and Tidd 138 kV	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1463	Reconductor the Bexley – Groves 138 kV circuit	AEP (100%)
b1464	Corner 138 kV upgrades	AEP (100%)
b1465.1	Add a 3rd 2250 MVA 765/345 kV transformer at Sullivan station	AEC (0.71%) / AEP (75.06%) / APS (1.25%) / BGE (1.81%) / ComEd (5.91%) / Dayton (0.86%) / DL (1.23%) / DPL (0.95%) / Dominion (3.89%) / JCPL (1.58%) / NEPTUNE* (0.15%) / HTP*** (0.07%) / PECO (2.08%) / PEPCO (1.66%) / ECP** (0.07%)** / PSEG (2.62%) / RE (0.10%)
b1465.2	Replace the 100 MVAR 765 kV shunt reactor bank on Rockport – Jefferson 765 kV line with a 300 MVAR bank at Rockport Station	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1465.3	Transpose the Rockport – Sullivan 765 kV line and the Rockport – Jefferson 765 kV line	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (100%)</p>
b1465.4	Make switching improvements at Sullivan and Jefferson 765 kV stations	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (100%)</p>

b1466.1	Create an in and out loop at Adams Station by removing the hard tap that currently exists		AEP (100%)
b1466.2	Upgrade the Adams transformer to 90 MVA		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1466.3	At Seaman Station install a new 138 kV bus and two new 138 kV circuit breakers	AEP (100%)
b1466.4	Convert South Central Co-op's New Market 69 kV Station to 138 kV	AEP (100%)
b1466.5	The Seaman – Highland circuit is already built to 138 kV, but is currently operating at 69 kV, which would now increase to 138 kV	AEP (100%)
b1466.6	At Highland Station, install a new 138 kV bus, three new 138 kV circuit breakers and a new 138/69 kV 90 MVA transformer	AEP (100%)
b1466.7	Using one of the bays at Highland, build a 138 kV circuit from Hillsboro – Highland 138 kV, which is approximately 3 miles	AEP (100%)
b1467.1	Install a 14.4 MVar Capacitor Bank at New Buffalo station	AEP (100%)
b1467.2	Reconfigure the 138 kV bus at LaPorte Junction station to eliminate a contingency resulting in loss of two 138 kV sources serving the LaPorte area	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1468.1	Expand Selma Parker Station and install a 138/69/34.5 kV transformer	AEP (100%)
b1468.2	Rebuild and convert 34.5 kV line to Winchester to 69 kV, including Farmland Station	AEP (100%)
b1468.3	Retire the 34.5 kV line from Haymond to Selma Wire	AEP (100%)
b1469.1	Conversion of the Newcomerstown – Cambridge 34.5 kV system to 69 kV operation	AEP (100%)
b1469.2	Expansion of the Derwent 69 kV Station (including reconfiguration of the 69 kV system)	AEP (100%)
b1469.3	Rebuild 11.8 miles of 69 kV line, and convert additional 34.5 kV stations to 69 kV operation	AEP (100%)
b1470.1	Build a new 138 kV double circuit off the Kanawha – Bailyville #2 138 kV circuit to Skin Fork Station	AEP (100%)
b1470.2	Install a new 138/46 kV transformer at Skin Fork	AEP (100%)
b1470.3	Replace 5 Moab's on the Kanawha – Baileysville line with breakers at the Sundial 138 kV station	AEP (100%)
b1471	Perform a sag study on the East Lima – For Lima – Rockhill 138 kV line to increase the emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1472 Perform a sag study on the East Lima – Haviland 138 kV line to increase the emergency rating		AEP (100%)
b1473 Perform a sag study on the East New Concord – Muskingum River section of the Muskingum River – West Cambridge 138 kV circuit		AEP (100%)
b1474 Perform a sag study on the Ohio Central – Prep Plant tap 138 kV circuit		AEP (100%)
b1475 Perform a sag study on the S73 – North Delphos 138 kV line to increase the emergency rating		AEP (100%)
b1476 Perform a sag study on the S73 – T131 138 kV line to increase the emergency rating		AEP (100%)
b1477 The Natrium – North Martin 138 kV circuit would need an electrical clearance study among other equipment upgrades		AEP (100%)
b1478 Upgrade Strouds Run – Strouds Tap 138 kV relay and riser		AEP (100%)
b1479 West Hebron station upgrades		AEP (100%)
b1480 Perform upgrades and a sag study on the Corner – Layman 138 kV section of the Corner – Muskingum River 138 kV circuit		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1481	Perform a sag study on the West Lima – Eastown Road – Rockhill 138 kV line and replace the 138 kV risers at Rockhill station to increase the emergency rating	AEP (100%)
b1482	Perform a sag study for the Albion – Robison Park 138 kV line to increase its emergency rating	AEP (100%)
b1483	Sag study 1 mile of the Clinch River – Saltville 138 kV line and replace the risers and bus at Clinch River, Lebanon and Elk Garden Stations	AEP (100%)
b1484	Perform a sag study on the Hacienda – Harper 138 kV line to increase the emergency rating	AEP (100%)
b1485	Perform a sag study on the Jackson Road – Concord 183 kV line to increase the emergency rating	AEP (100%)
b1486	The Matt Funk – Poages Mill – Starkey 138 kV line requires	AEP (100%)
b1487	Perform a sag study on the New Carlisle – Trail Creek 138 kV line to increase the emergency rating	AEP (100%)
b1488	Perform a sag study on the Olive – LaPorte Junction 138 kV line to increase the emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1489	A sag study must be performed for the 5.40 mile Tristate – Chadwick 138 kV line to determine if a higher emergency rating can be used	AEP (100%)
b1490.1	Establish a new 138/69 kV Butler Center station	AEP (100%)
b1490.2	Build a new 14 mile 138 kV line from Auburn station to Woods Road station VIA Butler Center station	AEP (100%)
b1490.3	Replace the existing 40 MVA 138/69 kV transformer at Auburn station with a 90 MVA 138/96 kV transformer	AEP (100%)
b1490.4	Improve the switching arrangement at Kendallville station	AEP (100%)
b1491	Replace bus and risers at Thelma and Busseyville stations and perform a sag study for the Big Sandy – Busseyville 138 kV line	AEP (100%)
b1492	Reconductor 0.65 miles of the Glen Lyn – Wythe 138 kV line with 3 – 1590 ACSR	AEP (100%)
b1493	Perform a sag study for the Bellfonte – Grantston 138 kV line to increase its emergency rating	AEP (100%)
b1494	Perform a sag study for the North Proctorville – Solida – Bellefonte 138 kV line to increase its emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1495	Add an additional 765/345 kV transformer at Baker Station	AEC (0.41%) / AEP (87.22%) / BGE (1.03%) / ComEd (3.38%) / Dayton (1.23%) / DL (1.46%) / DPL (0.54%) / JCPL (0.90%) / NEPTUNE* (0.09%) / HTP (0.04%) / PECO (1.18%) / PEPCO (0.94%) / ECP** (0.04%) / PSEG (1.48%) / RE (0.06%)
b1496	Replace 138 kV bus and risers at Johnson Mountain Station	AEP (100%)
b1497	Replace 138 kV bus and risers at Leesville Station	AEP (100%)
b1498	Replace 138 kV risers at Wurno Station	AEP (100%)
b1499	Perform a sag study on Sporn A – Gavin 138 kV to determine if the emergency rating can be improved	AEP (100%)
b1500	The North East Canton – Wagenhals 138 kV circuit would need an electrical clearance study to determine if the emergency rating can be utilized	AEP (100%)
b1501	The Moseley – Reusens 138 kV circuit requires a sag study to determine if the emergency rating can be utilized to address a thermal loading issue for a category C3	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1502	Reconductor the Conesville East – Conesville Prep Plant Tap 138 kV section of the Conesville – Ohio Central to fix Reliability N-1-1 thermal overloads	AEP (100%)
b1659	Establish Sorenson 345/138 kV station as a 765/345 kV station	AEP (93.61%) / ATSI (2.99%) / ComEd (2.07%) / HTP (0.03%) / PENELEC (0.31%) / ECP** (0.03%) / PSEG (0.92%) / RE (0.04%)
b1659.1	Replace Sorenson 138 kV breaker 'L1'	AEP (100%)
b1659.2	Replace Sorenson 138 kV breaker 'L2' breaker	AEP (100%)
b1659.3	Replace Sorenson 138 kV breaker 'M1'	AEP (100%)
b1659.4	Replace Sorenson 138 kV breaker 'M2'	AEP (100%)
b1659.5	Replace Sorenson 138 kV breaker 'N1'	AEP (100%)
b1659.6	Replace Sorenson 138 kV breaker 'N2'	AEP (100%)
b1659.7	Replace Sorenson 138 kV breaker 'O1'	AEP (100%)
b1659.8	Replace Sorenson 138 kV breaker 'O2'	AEP (100%)
b1659.9	Replace Sorenson 138 kV breaker 'M'	AEP (100%)
b1659.10	Replace Sorenson 138 kV breaker 'N'	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1659.11	Replace Sorenson 138 kV breaker 'O'	AEP (100%)
b1659.12	Replace McKinley 138 kV breaker 'L1'	AEP (100%)
b1659.13	Establish 765 kV yard at Sorenson and install four 765 kV breakers	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (75.95<u>79.31</u>%) / Dayton (7.52<u>9.10</u>%) / DEOK (12.77<u>11.59</u>%) / EKPC (3.76%)</p>
b1659.14	Build approximately 14 miles of 765 kV line from existing Dumont - Marysville line	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) /</p>

			PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEP (71.06 <u>69.56</u> %) / ATSI (15.95 <u>17.59</u> %) / Dayton (7.10 <u>7.73</u> %) / DL (4.84 <u>4.96</u> %) / EKPC (0.77 <u>0.16</u> %) / OVEC (0.28 %)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1660	Install a 765/500 kV transformer at Cloverdale	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: BGE (8.37<u>44.54</u>%) / Dayton (21.94<u>0.40</u>%) / DEOK (56.40<u>1.04</u>%) / EKPC (13.29<u>0.24</u>%) / PEPCO (53.62%)</p>
b1661	Install a 765 kV circuit breaker at Wyoming station	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC</p>

			(1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)
			DFAX Allocation: AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b1662	Rebuild 4 miles of 46 kV line to 138 kV from Pemberton to Cherry Creek		AEP (100%)
b1662.1	Circuit Breakers are installed at Cherry Creek (facing Pemberton) and at Pemberton (facing Tams Mtn. and Cherry Creek)		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1662.2	Install three 138 kV breakers at Grandview Station (facing Cherry Creek, Hinton, and Bradley Stations)	AEP (100%)
b1662.3	Remove Sullivan Switching Station (46 kV)	AEP (100%)
b1663	Install a new 765/138 kV transformer at Jackson Ferry substation	AEP (100%)
b1663.1	Establish a new 10 mile double circuit 138 kV line between Jackson Ferry and Wythe	AEP (100%)
b1663.2	Install 2 765 kV circuit breakers, breaker disconnect switches and associated bus work for the new 765 kV breakers, and new relays for the 765 kV breakers at Jackson's Ferry	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEP (100%)
b1664	Install switched capacitor banks at Kenwood 138 kV stations	AEP (100%)
b1665	Install a second 138/69 kV transformer at Thelma station	AEP (100%)
b1665.1	Construct a single circuit 69 kV line from West	AEP (100%)

	Paintsville to the new Paintsville station		
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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1665.2	Install new 7.2 MVAR, 46 kV bank at Kenwood Station	AEP (100%)
b1666	Build an 8 breaker 138 kV station tapping both circuits of the Fostoria - East Lima 138 kV line	AEP (90.65%) / Dayton (9.35%)
b1667	Establish Melmore as a switching station with both 138 kV circuits terminating at Melmore. Extend the double circuit 138 kV line from Melmore to Fremont Center	AEP (100%)
b1668	Revise the capacitor setting at Riverside 138 kV station	AEP (100%)
b1669	Capacitor setting changes at Ross 138 kV stations	AEP (100%)
b1670	Capacitor setting changes at Wooster 138 kV station	AEP (100%)
b1671	Install four 138 kV breakers in Danville area	AEP (100%)
b1676	Replace Natrium 138 kV breaker 'G (rehab)'	AEP (100%)
b1677	Replace Huntley 138 kV breaker '106'	AEP (100%)
b1678	Replace Kammer 138 kV breaker 'G'	AEP (100%)
b1679	Replace Kammer 138 kV breaker 'H'	AEP (100%)
b1680	Replace Kammer 138 kV breaker 'J'	AEP (100%)
b1681	Replace Kammer 138 kV breaker 'K'	AEP (100%)
b1682	Replace Kammer 138 kV breaker 'M'	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1683	Replace Kammer 138 kV breaker 'N'		AEP (100%)
b1684	Replace Clinch River 138 kV breaker 'E1'		AEP (100%)
b1685	Replace Lincoln 138 kV breaker 'D'		AEP (100%)
b1687	Advance s0251.7 (Replace Corrid 138 kV breaker '104S')		AEP (100%)
b1688	Advance s0251.8 (Replace Corrid 138 kV breaker '104C')		AEP (100%)
b1712.1	Perform sag study on Altavista - Leesville 138 kV line		Dominion (75.30%) / PEPCO (24.70%)
b1712.2	Rebuild the Altavista - Leesville 138 kV line		Dominion (75.30%) / PEPCO (24.70%)
b1733	Perform a sag study of the Bluff Point - Jauby 138 kV line. Upgrade breaker, wavetrap, and risers at the terminal ends		AEP (100%)
b1734	Perform a sag study of Randolph - Hodgins 138 kV line. Upgrade terminal equipment		AEP (100%)
b1735	Perform a sag study of R03 - Magely 138 kV line. Upgrade terminal equipment		AEP (100%)
b1736	Perform a sag study of the Industrial Park - Summit 138 kV line		AEP (100%)
b1737	Sag study of Newcomerstown - Hillview 138 kV line. Upgrade -		AEP (100%)

	terminal equipment		
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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1738	Perform a sag study of the Wolf Creek - Layman 138 kV line. -Upgrade terminal equipment including a 138 kV breaker and wavetrap	AEP (100%)
b1739	Perform a sag study of the Ohio Central - West Trinway 138 kV line	AEP (100%)
b1741	Replace Beatty 138 kV breaker '2C(IPP)'	AEP (100%)
b1742	Replace Beatty 138 kV breaker '1E'	AEP (100%)
b1743	Replace Beatty 138 kV breaker '2E'	AEP (100%)
b1744	Replace Beatty 138 kV breaker '3C'	AEP (100%)
b1745	Replace Beatty 138 kV breaker '2W'	AEP (100%)
b1746	Replace St. Claire 138 kV breaker '8'	AEP (100%)
b1747	Replace Cloverdale 138 kV breaker 'C'	AEP (100%)
b1748	Replace Cloverdale 138 kV breaker 'D1'	AEP (100%)
b1780	Install two 138_kV breakers and two 138_kV circuit switchers at South Princeton Station and one 138_kV breaker and one 138_kV circuit switcher at Switchback Station	AEP (100%)
b1781	Install three 138 kV breakers and a 138_kV circuit switcher at Trail Fork Station in Pineville, WV	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1782	Install a 46 kV Moab at Montgomery Station facing Carbondale (on the London - Carbondale 46 kV circuit)	AEP (100%)
b1783	Add two 138 kV Circuit Breakers and two 138 kV circuit switchers on the Lonesome Pine - South Bluefield 138 kV line	AEP (100%)
b1784	Install a 52.8 MVAR capacitor bank at the Clifford 138 kV station	AEP (100%)
b1811.1	Perform a sag study of 4 miles of the Waterford - Muskingum line	AEP (100%)
b1811.2	Rebuild 0.1 miles of Waterford - Muskingum 345 kV with 1590 ACSR	AEP (100%)
b1812	Reconductor the AEP portion of the South Canton - Harmon 345 kV with 954 ACSR and upgrade terminal equipment at South Canton. Expected rating is 1800 MVA S/N and 1800 MVA S/E	AEP (100%)
b1817	Install (3) 345 kV circuit breakers at East Elkhart station in ring bus designed as a breaker and half scheme	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1818	Expand the Allen station by installing a second 345/138 kV transformer and adding four 138 kV exits by cutting in the Lincoln - Sterling and Milan - Timber Switch 138 kV double circuit tower line	AEP (88.30%) / ATSI (8.86%) / Dayton (2.84%)
b1819	Rebuild the Robinson Park - Sorenson 138 kV line corridor as a 345 kV double circuit line with one side operated at 345 kV and one side at 138 kV	AEP (87.18%) / ATSI (10.06%) / Dayton (2.76%)
b1859	Perform a sag study for Hancock - Cave Spring - Roanoke 138 kV circuit to reach new SE ratings of 272_MVA (Cave Spring-Hancock), 205_MVA (Cave Spring-Sunscape), 245_MVA (ROANO2-Sunscape)	AEP (100%)
b1860	Perform a sag study on the Crooksville - Spencer Ridge section (14.3 miles) of the Crooksville-Poston-Strouds Run 138 kV circuit to see if any remedial action needed to reach the SE rating (175_MVA)	AEP (100%)
b1861	Reconductor 0.83 miles of the Dale - West Canton 138 kV Tie-line and upgrade risers at West Canton 138 kV	AEP (100%)
b1862	Perform a sag study on the Grant - Greentown 138 kV circuit and replace the relay CT at Grant 138 kV station to see if any remedial action needed to reach the new ratings of 251/286_MVA	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1863	Perform a sag study of the Kammer - Wayman SW 138 kV line to see if any remedial action needed to reach the new SE rating of 284 MVA	AEP (100%)
b1864.1	Add two additional 345/138 kV transformers at Kammer	AEP (87.22%) / APS (8.22%) / ATSI (3.52%) / DL (1.04%)
b1864.2	Add second West Bellaire - Brues 138 kV circuit	AEP (87.22%) / APS (8.22%) / ATSI (3.52%) / DL (1.04%)
b1864.3	Replace Kammer 138 kV breaker 'E'	AEP (100%)
b1865	Perform a sag study on the Kanawha - Carbondale 138 kV line to see if any remedial action needed to reach the new ratings of 251/335 MVA	AEP (100%)
b1866	Perform a sag study on the Clinch River-Lock Hart-Dorton 138 kV line, increase the Relay Compliance Trip Limit at Clinch River on the C.R.-Dorton 138 kV line to 310 and upgrade the risers with 1590 ACSR	AEP (100%)
b1867	Perform a sag study on the Newcomerstown - South Coshocton 138 kV line to see if any remedial action is needed to reach the new SE rating of 179 MVA	AEP (100%)
b1868	Perform sag study on the East Lima - new Liberty 138 kV line to see if any remedial action is needed to reach the new SE rating of 219 MVA	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1869	Perform a sag study of the Ohio Central - South Coshocton 138 kV circuit to see if any remedial action needed to reach the new SE ratings of 250 MVA	AEP (100%)
b1870	Replace the Ohio Central transformer #1 345/138/12 kV 450 MVA for a 345/138/34.5 kV 675 MVA transformer	AEP (68.16%) / ATSI (25.27%) / Dayton (3.88%) / PENELEC (1.59%) / DEOK (1.10%)
b1871	Perform a sag study on the Central - West Coshocton 138 kV line (improving the emergency rating of this line to 254 MVA)	AEP (100%)
b1872	Add a 57.6 MVar capacitor bank at East Elkhart 138 kv station in Indiana	AEP (100%)
b1873	Install two 138 kV circuit breakers at Cedar Creek Station and primary side circuit switcher on the 138/69/46 kV transformer	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1874	Install two 138 kV circuit breakers and one 138 kV circuit switcher at Magely 138 kV station in Indiana	AEP (100%)
b1875	Build 25 miles of new 138 kV line from Bradley Station through Tower 117 Station and terminating at McClung 138 kV station. Existing 69 kV distribution transformers will be replaced with 138 kV transformers	APS (100%)
b1876	Install a 14.4 MVar capacitor bank at Capital Avenue (AKA Currant Road) 34.5 kV bus	AEP (100%)
b1877	Relocate 138 kV Breaker G to the West Kingsport - Industry Drive 138 kV line and Remove 138 kV MOAB	AEP (100%)
b1878	Perform a sag study on the Lincoln - Robinson Park 138 kV line (Improve the emergency rating to 244 MVA)	AEP (100%)
b1879	Perform a sag study on the Hansonville - Meadowview 138 kV line (Improve the emergency rating to 245 MVA)	AEP (100%)
b1880	Rebuild the 15 miles of the Moseley - Roanoke 138 kV line. This project would consist of rebuilding both circuits on the double circuit line	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1881	Replace existing 600 Amp switches, station risers and increase the CT ratios associated with breaker 'G' at Sterling 138 kV Station. It will increase the rating to 296 MVA S/N and 384 MVA S/E	AEP (100%)
b1882	Perform a sag study on the Bluff Point - Randolph 138 kV line to see if any remedial action needed to reach the new SE rating of 255 MVA	AEP (100%)
b1883	Switch the breaker position of transformer #1 and SW Lima at East Lima 345 kV bus	AEP (100%)
b1884	Perform a sag study on Strawton station - Fisher Body - Deer Creek 138 kV line to see if any remedial action needed to reach the new SE rating of 250 MVA	AEP (100%)
b1887	Establish a new 138/69 kV source at Carrollton and construct two new 69 kV lines from Carrollton to tie into the Dennison - Miller SW 69 kV line and to East Dover 69 kV station respectively	AEP (100%)
b1888	Install a 69 kV line breaker at Blue Pennant 69 kV Station facing Bim Station and 14.4 MVar capacitor bank	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1889	Install a 43.2 MVAR capacitor bank at Hinton 138 kV station (APCO WV)	AEP (100%)
b1901	Rebuild the Ohio Central - West Trinway (4.84 miles) section of the Academia - Ohio Central 138 kV circuit. Upgrade the Ohio Central riser, Ohio Central switch and the West Trinway riser	AEP (100%)
b1904.1	Construct new 138/69 Michiana Station near Bridgman by tapping the new Carlisle - Main Street 138 kV and the Bridgman - Buchanan Hydro 69 kV line	AEP (100%)
b1904.2	Establish a new 138/12 kV New Galien station by tapping the Olive - Hickory Creek 138 kV line	AEP (100%)
b1904.3	Retire the existing Galien station and move its distribution load to New Galien station. Retire the Buchanan Hydro - New Carlisle 34.5 kV line	AEP (100%)
b1904.4	Implement an in and out scheme at Cook 69 kV by eliminating the Cook 69 kV tap point and by installing two new 69 kV circuit breakers	AEP (100%)
b1904.5	Rebuild the Bridgman - Cook 69 kV and the Derby - Cook 69 kV lines	AEP (100%)
b1946	Perform a sag study on the Brues - West Bellaire 138 kV line	AEP (100%)
b1947	A sag study of the Dequine - Meadowlake 345 kV line #1 line may improve the emergency rating to 1400 MVA	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1948	Establish a new 765/345 interconnection at Sporn. Install a 765/345 kV transformer at Mountaineer and build ¾ mile of 345 kV to Sporn	ATSI (61.08%) / DL (21.87%) / Dominion (13.97%) / PENELEC (3.08%)
b1949	Perform a sag study on the Grant Tap – Deer Creek 138 kV line and replace bus and risers at Deer Creek station	AEP (100%)
b1950	Perform a sag study on the Kammer – Ormet 138 kV line of the conductor section	AEP (100%)
b1951	Perform a sag study of the Maddox- Convoy 345 kV line to improve the emergency rating to 1400 MVA	AEP (100%)
b1952	Perform a sag study of the Maddox – T130 345 kV line to improve the emergency rating to 1400 MVA	AEP (100%)
b1953	Perform a sag study of the Meadowlake - Olive 345 kV line to improve the emergency rating to 1400 MVA	AEP (100%)
b1954	Perform a sag study on the Milan - Harper 138 kV line and replace bus and switches at Milan Switch station	AEP (100%)
b1955	Perform a sag study of the R-049 - Tillman 138 kV line may improve the emergency rating to 245 MVA	AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1956 Perform a sag study of the Tillman - Dawkins 138 kV line may improve the emergency rating to 245 MVA		AEP (100%)
b1957 Terminate Transformer #2 at SW Lima in a new bay position		AEP (69.41%) / ATSI (23.11%) / ECP** (0.17%) / HTP (0.19%) / PENELEC (2.42%) / PSEG (4.52%) / RE (0.18%)
b1958 Perform a sag study on the Brookside - Howard 138 kV line and replace bus and risers at AEP Howard station		AEP (100%)
b1960 Sag Study on 7.2 miles SE Canton-Canton Central 138 kV ckt		AEP (100%)
b1961 Sag study on the Southeast Canton – Sunnyside 138 kV line		AEP (100%)

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**East Coast Power, L.L.C.

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1962	Add four 765 kV breakers at Kammer	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (100%)</p>
b1963	Build approximately 1 mile of circuit comprising of 2-954 ACSR to get the rating of Waterford-Muskinum 345 kV higher	AEP (100%)
b1970	Reconductor 13 miles of the Kammer – West Bellaire 345 kV circuit	APS (33.51%) / ATSI (32.21%) / DL (18.64%) / Dominion (6.01%) / ECP** (0.10%) / HTP (0.11%) / JCPL (1.68%) / NEPTUNE* (0.18%) / PENELEC (4.58%) / PSEG (2.87%) / RE (0.11%)
b1971	Perform a sag study to improve the emergency rating on the Bridgville – Chandlersville 138 kV line	AEP (100%)
b1972	Replace disconnect switch on the South Canton 765/345 kV transformer	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1973	Perform a sag study to improve the emergency rating on the Carrollton – Sunnyside 138 kV line	AEP (100%)
b1974	Perform a sag study to improve the emergency rating on the Bethel Church – West Dover 138 kV line	AEP (100%)
b1975	Replace a switch at South Millersburg switch station	AEP (100%)
b2017	Reconductor or rebuild Sporn - Waterford - Muskingum River 345 kV line	ATSI (37.04%) / AEP (34.35%) / DL (10.41%) / Dominion (6.19%) / APS (3.94%) / PENELEC (3.09%) / JCPL (1.39%) / Dayton (1.20%) / NEPTUNE* (0.14%) / HTP (0.09%) / ECP** (0.08%) / PSEG (2.00%) / RE (0.08%)
b2018	Loop Conesville - Bixby 345 kV circuit into Ohio Central	ATSI (58.58%) / AEP (14.16%) / APS (12.88%) / DL (7.93%) / PENELEC (5.73%) / Dayton (0.72%)
b2019	Establish Burger 345/138 kV station	AEP (93.74%) / APS (4.40%) / DL (1.11%) / ATSI (0.74%) / PENELEC (0.01%)
b2020	Rebuild Amos - Kanawah River 138 kV corridor	AEP (88.39%) / APS (7.12%) / ATSI (2.89%) / DEOK (1.58%) / PEPCO (0.02%)
b2021	Add 345/138 transformer at Sporn, Kanawah River & Muskingum River stations	AEP (91.92%) / DEOK (3.60%) / APS (2.19%) / ATSI (1.14%) / DL (1.08%) / PEPCO (0.04%) / BGE (0.03%)
b2021.1	Replace Kanawah 138 kV breaker 'L'	AEP (100%)
b2021.2	Replace Muskingum 138 kV breaker 'HG'	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2021.3	Replace Muskingum 138 kV breaker 'HJ'		AEP (100%)
b2021.4	Replace Muskingum 138 kV breaker 'HE'		AEP (100%)
b2021.5	Replace Muskingum 138 kV breaker 'HD'		AEP (100%)
b2021.6	Replace Muskingum 138 kV breaker 'HF'		AEP (100%)
b2021.7	Replace Muskingum 138 kV breaker 'HC'		AEP (100%)
b2021.8	Replace Sporn 138 kV breaker 'D1'		AEP (100%)
b2021.9	Replace Sporn 138 kV breaker 'D2'		AEP (100%)
b2021.10	Replace Sporn 138 kV breaker 'F1'		AEP (100%)
b2021.11	Replace Sporn 138 kV breaker 'F2'		AEP (100%)
b2021.12	Replace Sporn 138 kV breaker 'G'		AEP (100%)
b2021.13	Replace Sporn 138 kV breaker 'G2'		AEP (100%)
b2021.14	Replace Sporn 138 kV breaker 'N1'		AEP (100%)
b2021.15	Replace Kanawah 138 kV breaker 'M'		AEP (100%)
b2022	Terminate Tristate - Kyger Creek 345 kV line at Sporn		AEP (97.99%) / DEOK (2.01%)
b2027	Perform a sag study of the Tidd - Collier 345 kV line		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2028	Perform a sag study on East Lima - North Woodcock 138 kV line to improve the rating	AEP (100%)
b2029	Perform a sag study on Bluebell - Canton Central 138 kV line to improve the rating	AEP (100%)
b2030	Install 345 kV circuit breakers at West Bellaire	AEP (100%)
b2031	Sag study on Tilton - W. Bellaire section 1 (795 ACSR), about 12 miles	AEP (100%)
b2032	Rebuild 138 kV Elliot tap - Poston line	ATSI (73.02%) / Dayton (19.39%) / DL (7.59%)
b2033	Perform a sag study of the Brues - W. Bellaire 138 kV line	AEP (100%)
b2046	Adjust tap settings for Muskingum River transformers	AEP (100%)
b2047	Replace relay at Greenlawn	AEP (100%)
b2048	Replace both 345/138 kV transformers with one bigger transformer	AEP (92.49%) / Dayton (7.51%)
b2049	Replace relay	AEP (100%)
b2050	Perform sag study	AEP (100%)
b2051	Install 3 138 kV breakers and a circuit switcher at Dorton station	AEP (100%)
b2052	Replace transformer	AEP (67.17%) / ATSI (27.37%) / Dayton (3.73%) / PENELEC (1.73%)
b2054	Perform a sag study of Sporn - Rutland 138 kV line	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2069 Replace George Washington 138 kV breaker 'A' with 63 kA rated breaker		AEP (100%)
b2070 Replace Harrison 138 kV breaker '6C' with 63 kA rated breaker		AEP (100%)
b2071 Replace Lincoln 138 kV breaker 'L' with 63 kA rated breaker		AEP (100%)
b2072 Replace Natrum 138 kV breaker 'T' with 63 kA rated breaker		AEP (100%)
b2073 Replace Darrah 138 kV breaker 'B' with 63 kA rated breaker		AEP (100%)
b2074 Replace Wyoming 138 kV breaker 'G' with 80 kA rated breaker		AEP (100%)
b2075 Replace Wyoming 138 kV breaker 'G1' with 80 kA rated breaker		AEP (100%)
b2076 Replace Wyoming 138 kV breaker 'G2' with 80 kA rated breaker		AEP (100%)
b2077 Replace Wyoming 138 kV breaker 'H' with 80 kA rated breaker		AEP (100%)
b2078 Replace Wyoming 138 kV breaker 'H1' with 80 kA rated breaker		AEP (100%)
b2079 Replace Wyoming 138 kV breaker 'H2' with 80kA rated breaker		AEP (100%)
b2080 Replace Wyoming 138 kV breaker 'J' with 80 kA rated breaker		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2081 Replace Wyoming 138 kV breaker 'J1' with 80_kA rated breaker		AEP (100%)
b2082 Replace Wyoming 138 kV breaker 'J2' with 80_kA rated breaker		AEP (100%)
b2083 Replace Natrum 138 kV breaker 'K' with 63_kA rated breaker		AEP (100%)
b2084 Replace Tanner Creek 345 kV breaker 'P' with 63_kA rated breaker		AEP (100%)
b2085 Replace Tanner Creek 345 kV breaker 'P2' with 63_kA rated breaker		AEP (100%)
b2086 Replace Tanner Creek 345 kV breaker 'Q1' with 63_kA rated breaker		AEP (100%)
b2087 Replace South Bend 138 kV breaker 'T' with 63_kA rated breaker		AEP (100%)
b2088 Replace Tidd 138 kV breaker 'L' with 63_kA rated breaker		AEP (100%)
b2089 Replace Tidd 138 kV breaker 'M2' with 63_kA rated breaker		AEP (100%)
b2090 Replace McKinley 138 kV breaker 'A' with 40_kA rated breaker		AEP (100%)
b2091 Replace West Lima 138 kV breaker 'M' with 63_kA rated breaker		AEP (100%)
b2092 Replace George Washington 138 kV breaker 'B' with 63 kA rated breaker		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2093	Replace Turner 138 kV breaker 'W' with 63 kA rated breaker	AEP (100%)
b2135	Build a new 138 kV line from Falling Branch to Merrimac and add a 138/69 kV transformer at Merrimac Station	AEP (100%)
b2160	Add a fourth circuit breaker to the station being built for the U4-038 project (Conelley), rebuild U4-038 - Grant Tap line as double circuit tower line	AEP (100%)
b2161	Rebuild approximately 20 miles of the Allen - S073 double circuit 138 kV line (with one circuit from Allen - Tillman - Timber Switch - S073 and the other circuit from Allen - T-131 - S073) utilizing 1033 ACSR	AEP (100%)
b2162	Perform a sag study to improve the emergency rating of the Belpre - Degussa 138 kV line	AEP (100%)
b2163	Replace breaker and wavetrap at Jay 138 kV station	AEP (100%)

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SCHEDULE 12 – APPENDIX

(20) Virginia Electric and Power Company

Required Transmission Enhancements Annual Revenue Requirement*** Responsible Customer(s)

b0217	Upgrade Mt. Storm - Doubs 500_kV		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>
b0222	Install 150 MVAR capacitor at Loudoun 500 kV		<p>DFAX Allocation: APS (21.37<u>20.09</u>%) / BGE (9.63<u>13.46</u>%) / Dominion (59.60<u>52.77</u>%) / PEPCO (9.40<u>13.68</u>%)</p> <p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE</p>

			(0.26 <u>0.27</u> %)
			DFAX Allocation: <u>BGE (8.29%) / Dominion</u> <u>(100<u>79.93</u>%) / (<u>11.78</u>%)</u>

* Neptune Regional Transmission System, LLC

*** The Annual Revenue Requirement for all Virginia Electric and Power Company projects in this Section 20 shall be as specified in Attachment 7 to Appendix A of Attachment H-16A and under the procedures detailed in Attachment H-16B.

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0223	Install 150 MVAR capacitor at Asburn 230 kV		Dominion (100%)
b0224	Install 150 MVAR capacitor at Dranesville 230 kV		Dominion (100%)
b0225	Install 33 MVAR capacitor at Possum Pt. 115 kV		Dominion (100%)
b0226	Install 500/230 kV transformer at Clifton and Clifton 500 kV 150 MVAR capacitor	As specified in Attachment 7 to Appendix A of Attachment H-16A and under the procedures detailed in Attachment H-16B	APS (3.69%) / BGE (3.54%) / Dominion (85.73%) / PEPCO (7.04%)
b0227	Install 500/230 kV transformer at Bristers; build new 230 kV Bristers-Gainsville circuit, upgrade two Loudoun-Brambleton circuits		AEC (0.71%) / APS (3.36%) / BGE (10.93%) / DPL (1.66%) / Dominion (67.38%) / ME (0.89%) / PECO (2.33%) / PEPCO (12.20%) / PPL (0.54%)
b0227.1	Loudoun Sub – upgrade 6-230 kV breakers		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0231	Install 500 kV breakers & 500 kV bus work at Suffolk		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: Dominion (100%)
b0231.2	Install 500/230 kV Transformer, 230 kV breakers, & 230 kV bus work at Suffolk		Dominion (100%)
b0232	Install 150 MVAR capacitor at Lynnhaven 230 kV		Dominion (100%)
b0233	Install 150 MVAR capacitor at Landstown 230 kV		Dominion (100%)
b0234	Install 150 MVAR capacitor at Greenwich 230 kV		Dominion (100%)
b0235	Install 150 MVAR capacitor at Fentress 230 kV		Dominion (100%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0307	Reconductor Endless Caverns – Mt. Jackson 115 kV		Dominion (100%)
b0308	Replace L breaker and switches at Endless Caverns 115 kV		Dominion (100%)
b0309	Install SPS at Earleys 115 kV		Dominion (100%)
b0310	Reconductor Club House – South Hill and Chase City – South Hill 115 kV		Dominion (100%)
b0311	Reconductor Idylwood to Arlington 230 kV		Dominion (100%)
b0312	Reconductor Gallows to Ox 230 kV		Dominion (100%)
b0325	Install a 2 nd Everetts 230/115 kV transformer		Dominion (100%)
b0326	Uprate/resag Remington-Brandywine-Culppr 115 kV		Dominion (100%)
b0327	Build 2 nd Harrisonburg – Valley 230 kV		APS (19.79%) / Dominion (76.18%) / PEPCO (4.03%)
b0328.1	Build new Meadow Brook – Loudoun 500 kV circuit (30 of 50 miles)		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.64 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)

			DFAX Allocation: <u>BGE (8.29%) / Dominion</u> <u>(10079.93%) / PEPCO (11.78%)</u>
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0328.3	Upgrade Mt. Storm 500 kV substation	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: APS (43.43 <u>30.25</u> %) / <u>BGE</u> (<u>8.80</u> %) / Dominion (56.57 <u>46.80</u> %) / <u>PEPCO</u> (<u>14.15</u> %)
b0328.4	Upgrade Loudoun 500 kV substation	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation:

			<div> <div>BGE (8.29%) / Dominion</div> <div>(10079.93%) / PEPCO (11.78%)</div> </div>
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0329	Build Carson – Suffolk 500 kV, install 2 nd Suffolk 500/230 kV transformer & build Suffolk – Fentress 230 kV circuit		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: Dominion (100%)
b0329.1	Replace Thole Street 115 kV breaker ‘48T196’		Dominion (100%)
b0329.2	Replace Chesapeake 115 kV breaker ‘T242’		Dominion (100%)
b0329.3	Replace Chesapeake 115 kV breaker ‘8722’		Dominion (100%)
b0329.4	Replace Chesapeake 115 kV breaker ‘16422’		Dominion (100%)
b0329.5	Install 2 nd Suffolk 500/230 kV transformer & build Suffolk – Thrasher 230 kV circuit		Dominion (100%)††
b0330	Install Crewe 115 kV breaker and shift load from line 158 to 98		Dominion (100%)
b0331	Upgrade/resag Shell Bank – Whealton 115 kV (Line 165)		Dominion (100%)

* Neptune Regional Transmission System, LLC

~~‡Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities
associated with the project~~

‡‡Cost allocations associated with below 500 kV elements of the project

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0332	Uprate/resag Chesapeake – Cradock 115 kV		Dominion (100%)
b0333	Replace wave trap on Elmont – Replace (Line #231)		Dominion (100%)
b0334	Uprate/resag Iron Bridge-Walmsley-Southwest 230 kV		Dominion (100%)
b0335	Build Chase City – Clarksville 115 kV		Dominion (100%)
b0336	Reconductor one span of Chesapeake – Dozier 115 kV close to Dozier substation		Dominion (100%)
b0337	Build Lexington 230 kV ring bus		Dominion (100%)
b0338	Replace Gordonsville 230/115 kV transformer for larger one		Dominion (100%)
b0339	Install Breaker at Dooms 230 kV Sub		Dominion (100%)
b0340	Reconductor one span Peninsula – Magruder 115 kV close to Magruder substation		Dominion (100%)
b0341	Install a breaker at Northern Neck 115 kV		Dominion (100%)
b0342	Replace Trowbridge 230/115 kV transformer		Dominion (100%)
b0403	2 nd Dooms 500/230 kV transformer addition		APS (3.35%) / BGE (4.22%) / DPL (1.10%) / Dominion (83.94%) / PEPCO (7.39%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0412	Retension Pruntytown – Mt. Storm 500 kV to a 3502 MVA rating	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (53.81<u>29.06</u>%) / <u>ATSI (0.01%)</u> / <u>BGE (24.30%)</u> / DEOK (17.91<u>10.11</u>%) / PEPCO (28.28<u>36.52</u>%)</p>
b0450	Install 150 MVAR Capacitor at Fredricksburg 230 kV	Dominion (100%)
b0451	Install 25 MVAR Capacitor at Somerset 115 kV	Dominion (100%)
b0452	Install 150 MVAR Capacitor at Northwest 230 kV	Dominion (100%)
b0453.1	Convert Remington – Sowego 115 kV to 230 kV	APS (0.31%) / BGE (3.01%) / DPL (0.04%) / Dominion (92.75%) / ME (0.03%) / PEPCO (3.86%)
b0453.2	Add Sowego – Gainsville 230 kV	APS (0.31%) / BGE (3.01%) / DPL (0.04%) / Dominion (92.75%) / ME (0.03%) / PEPCO (3.86%)
b0453.3	Add Sowego 230/115 kV transformer	APS (0.31%) / BGE (3.01%) / DPL (0.04%) / Dominion (92.75%) / ME (0.03%) / PEPCO (3.86%)
b0454	Reconductor 2.4 miles of Newport News – Chuckatuck 230 kV	Dominion (100%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0455	Add 2 nd Endless Caverns 230/115 kV transformer	APS (32.70%) / BGE (7.01%) / DPL (1.80%) / Dominion (50.82%) / PEPCO (7.67%)
b0456	Reconductor 9.4 miles of Edinburg – Mt. Jackson 115 kV	APS (33.69%) / BGE (12.18%) / Dominion (40.08%) / PEPCO (14.05%)
b0457	Replace both wave traps on Dooms – Lexington 500 kV	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: BGE (<u>11.61</u> %) / Dominion (99.00 <u>69.16</u> %) / EKPC (1.00 <u>4.82</u> %) / (<u>PEPCO 14.41</u> %)
b0467.2	Reconductor the Dickerson – Pleasant View 230 kV circuit	AEC (1.75%) / APS (19.70%) / BGE (22.13%) / DPL (3.70%) / JCPL (0.71%) / ME (2.48%) / NEPTUNE* (0.06%) / PECO (5.54%) / PEPCO (41.86%) / PPL (2.07%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0492.6	Replace Mount Storm 500 kV breaker 55072		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>
			<p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>
b0492.7	Replace Mount Storm 500 kV breaker 55172		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>
			<p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) /</p>

		JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.8	Replace Mount Storm 500 kV breaker H1172-2	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>
b0492.9	Replace Mount Storm 500 kV breaker G2T550	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) /</p>

DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.10	Replace Mount Storm 500 kV breaker G2T554	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
b0492.11	Replace Mount Storm 500 kV breaker G1T551	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) /

		PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.12	Upgrade nameplate rating of Mount Storm 500 kV breakers 55472, 57272, SX172, G3TSX1, G1TH11, G3T572, and SX22	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River	<p>AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0512.5	Advance n0716 (Ox - Replace 230_kV breaker L242)		<p>Load-Ratio Share Allocation: AEC (1.7<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.6<u>5.64</u>%) / ATSI (8.1<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.6	Advance n0717 (Possum Point - Replace 230_kV breaker SC192)		<p>Load-Ratio Share Allocation: AEC (1.7<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.6<u>5.64</u>%) / ATSI (8.1<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>

			DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0583	Install dual primary protection schemes on Gosport lines 62 and 51 at the remote terminals (Chesapeake on the 62 line and Reeves Ave on the 51 line)	Dominion (100%)
b0756	Install a second 500/115 kV autotransformer at Chancellor 500 kV	Dominion (100%)
b0756.1	Install two 500 kV breakers at Chancellor 500 kV	Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.44 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)
		DFAX Allocation: Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0757	Reconductor one mile of Chesapeake – Reeves Avenue 115 kV line	Dominion (100%)
b0758	Install a second Fredericksburg 230/115 kV autotransformer	Dominion (100%)
b0760	Build 115 kV line from Kitty Hawk to Colington 115 kV (Colington on the existing line and Nag's Head and Light House DP on new line)	Dominion (100%)
b0761	Install a second 230/115 kV transformer at Possum Point	Dominion (100%)
b0762	Build a new Elko station and transfer load from Turner and Providence Forge stations	Dominion (100%)
b0763	Rebuild 17.5 miles of the line for a new summer rating of 262 MVA	Dominion (100%)
b0764	Increase the rating on 2.56 miles of the line between Greenwich and Thompson Corner; new rating to be 257 MVA	Dominion (100%)
b0765	Add a second Bull Run 230/115 kV autotransformer	Dominion (100%)
b0766	Increase the rating of the line between Loudoun and Cedar Grove to at least 150 MVA	Dominion (100%)
b0767	Extend the line from Old Church – Chickahominy 230 kV	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0768	Loop line #251 Idylwood – Arlington into the GIS sub	Dominion (100%)
b0769	Re-tension 15 miles of the line for a new summer rating of 216 MVA	Dominion (100%)
b0770	Add a second 230/115 kV autotransformer at Lanexa	Dominion (100%)
b0770.1	Replace Lanexa 115 kV breaker ‘8532’	Dominion (100%)
b0770.2	Replace Lanexa 115 kV breaker ‘9232’	Dominion (100%)
b0771	Build a parallel Chickahominy – Lanexa 230 kV line	Dominion (100%)
b0772	Install a second Elmont 230/115 kV autotransformer	Dominion (100%)
b0772.1	Replace Elmont 115 kV breaker ‘7392’	Dominion (100%)
b0774	Install a 33 MVAR capacitor at Bremo 115 kV	Dominion (100%)
b0775	Reconductor the Greenwich – Virginia Beach line to bring it up to a summer rating of 261 MVA; Reconductor the Greenwich – Amphibious Base line to bring it up to 291 MVA	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0776	Re-build Trowbridge – Winfall 115 kV	Dominion (100%)
b0777	Terminate the Thelma – Carolina 230 kV circuit into Lakeview 230 kV	Dominion (100%)
b0778	Install 29.7 MVAR capacitor at Lebanon 115 kV	Dominion (100%)
b0779	Build a new 230 kV line from Yorktown to Hayes but operate at 115 kV initially	Dominion (100%)
b0780	Reconductor Chesapeake – Yadkin 115 kV line	Dominion (100%)
b0781	Reconductor and replace terminal equipment on line 17 and replace the wave trap on line 88	Dominion (100%)
b0782	Install a new 115 kV capacitor at Dupont Waynesboro substation	Dominion (100%)
b0784	Replace wave traps on North Anna to Ladysmith 500 kV	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: Dominion (100 <u>94.21</u> %) / <u>PEPCO</u> (<u>5.79</u> %)

b0785	Rebuild the Chase City – Crewe 115 kV line		Dominion (100%)
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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0786	Reconductor the Moran DP – Crewe 115 kV segment	Dominion (100%)
b0787	Upgrade the Chase City – Twitty’s Creek 115 kV segment	Dominion (100%)
b0788	Reconductor the line from Farmville – Pamplin 115 kV	Dominion (100%)
b0793	Close switch 145T183 to network the lines. Rebuild the section of the line #145 between Possum Point – Minnieville DP 115 kV	Dominion (100%)
b0815	Replace Elmont 230 kV breaker '22192'	Dominion (100%)
b0816	Replace Elmont 230 kV breaker '21692'	Dominion (100%)
b0817	Replace Elmont 230 kV breaker '200992'	Dominion (100%)
b0818	Replace Elmont 230 kV breaker '2009T2032'	Dominion (100%)
b0837	At Mt. Storm, replace the existing MOD on the 500 kV side of the transformer with a circuit breaker	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation:</p>

			Dominion (100%)
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0888	Replace Loudoun 230 kV Cap breaker 'SC352'		Dominion (100%)
b0892	Replace Chesapeake 115 kV breaker SX522		Dominion (100%)
b0893	Replace Chesapeake 115 kV breaker T202		Dominion (100%)
b0894	Replace Possum Point 115 kV breaker SX-32		Dominion (100%)
b0895	Replace Possum Point 115 kV breaker L92-1		Dominion (100%)
b0896	Replace Possum Point 115 kV breaker L92-2		Dominion (100%)
b0897	Replace Suffolk 115 kV breaker T202		Dominion (100%)
b0898	Replace Peninsula 115 kV breaker SC202		Dominion (100%)
b0921	Reconductor Brambleton - Cochran Mill 230 kV line with 201 Yukon conductor		Dominion (100%)
b0923	Install 50-100 MVAR variable reactor banks at Carson 230 kV		Dominion (100%)
b0924	Install 50-100 MVAR variable reactor banks at Dooms 230 kV		Dominion (100%)
b0925	Install 50-100 MVAR variable reactor banks at Garrisonville 230 kV		Dominion (100%)
b0926	Install 50-100 MVAR variable reactor banks at Hamilton 230 kV		Dominion (100%)
b0927	Install 50-100 MVAR variable reactor banks at Yadkin 230 kV		Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0928	Install 50-100 MVAR variable reactor banks at Carolina, Dooms, Everetts, Idylwood, N. Alexandria, N. Anna, Suffolk and Valley 230 kV substations	Dominion (100%)
b1056	Build a 2nd Shawboro – Elizabeth City 230 kV line	Dominion (100%)
b1058	Add a third 230/115 kV transformer at Suffolk substation	Dominion (100%)
b1058.1	Replace Suffolk 115 kV breaker 'T122' with a 40 kA breaker	Dominion (100%)
b1058.2	Convert Suffolk 115 kV straight bus to a ring bus for the three 230/115 kV transformers and three 115 kV lines	Dominion (100%)
b1071	Rebuild the existing 115 kV corridor between Landstown - Va Beach Substation for a double circuit arrangement (230 kV & 115 kV)	Dominion (100%)
b1076	Replace existing North Anna 500-230 kV transformer with larger unit	Dominion (100%)
b1087	Replace Cannon Branch 230-115 kV with larger transformer	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1088 Build new Radnor Heights Sub, add new underground circuit from Ballston - Radnor Heights, Tap the Glebe - Davis line and create circuits from Davis - Radnor Heights and Glebe - Radnor Heights		Dominion (100%)
b1089 Install 2nd Burke to Sideburn 230 kV underground cable		Dominion (100%)
b1090 Install a 150 MVAR 230 kV capacitor and one 230 kV breaker at Northwest		Dominion (100%)
b1095 Reconductor Chase City 115 kV bus and add a new tie breaker		Dominion (100%)
b1096 Construct 10 mile double ckt. 230 kV tower line from Loudoun to Middleburg		Dominion (100%)
b1102 Replace Bremo 115 kV breaker '9122'		Dominion (100%)
b1103 Replace Bremo 115 kV breaker '822'		Dominion (100%)
b1172 Build a 4-6 mile long 230 kV line from Hopewell to Bull Hill (Ft Lee) and install a 230-115 kV Tx		Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1188	Build new Brambleton 500 kV three breaker ring bus connected to the Loudoun to Pleasant View 500 kV line	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: Dominion (100%)
b1188.1	Replace Loudoun 230 kV breaker '200852' with a 63 kA breaker	Dominion (100%)
b1188.2	Replace Loudoun 230 kV breaker '2008T2094' with a 63 kA breaker	Dominion (100%)
b1188.3	Replace Loudoun 230 kV breaker '204552' with a 63 kA breaker	Dominion (100%)
b1188.4	Replace Loudoun 230 kV breaker '209452' with a 63 kA breaker	Dominion (100%)
b1188.5	Replace Loudoun 230 kV breaker 'WT2045' with a 63 kA breaker	Dominion (100%)
b1188.6	Install one 500/230 kV transformer and two 230 kV breakers at Brambleton	AEC (0.22%) / BGE (7.90%) / DPL (0.59%) / Dominion (75.58%) / ME (0.22%) / PECO (0.73%) / PEPCO (14.76%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1224	Install 2nd Clover 500/230 kV transformer and a 150 MVar capacitor		BGE (7.56%) / DPL (1.03%) / Dominion (78.21%) / ME (0.77%) / PECO (1.39%) / PEPCO (11.04%)
b1225	Replace Yorktown 115 kV breaker 'L982-1'		Dominion (100%)
b1226	Replace Yorktown 115 kV breaker 'L982-2'		Dominion (100%)
b1279	Line #69 Uprate – Increase rating on Locks – Purdy 115 kV to serve additional load at the Reams delivery point		Dominion (100%)
b1306	Reconfigure 115 kV bus at Endless Caverns substation such that the existing two 230/115 kV transformers at Endless Caverns operate in		Dominion (100%)
b1307	Install a 2nd 230/115 kV transformer at Northern Neck Substation		Dominion (100%)
b1308	Improve LSE's power factor in zone to .973 PF, adjust LTC's at Gordonsville and Remington, move existing shunt capacitor banks		Dominion (100%)
b1309	Install a 230 kV line from Lakeside to Northwest utilizing the idle line and 60 line ROW's and reconductor the existing 221 line between Elmont and Northwest		Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1310 Install a 115 kV breaker at Broadnax substation on the South Hill side of Broadnax		Dominion (100%)
b1311 Install a 230 kV 3000 amp breaker at Cranes Corner substation to sectionalize the 2104 line into two lines		Dominion (100%)
b1312 Loop the 2054 line in and out of Hollymeade and place a 230 kV breaker at Hollymeade. This creates two lines: Charlottesville - Hollymeade		Dominion (100%)
b1313 Resag wire to 125C from Chesterfield – Shockoe and replace line switch 1799 with 1200 amp switch. The new rating would be 231 MVA.		Dominion (100%)
b1314 Rebuild the 6.8 mile line #100 from Chesterfield to Harrowgate 115 kV for a minimum 300 MBA rating		Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1315 Convert line #64 Trowbridge to Winfall to 230 kV and install a 230 kV capacitor bank at Winfall		Dominion (100%)
b1316 Rebuild 10.7 miles of 115 kV line #80, Battleboro – Heartsease DP		Dominion (100%)
b1317 LSE load power factor on the #47 line will need to meet MOA requirements of .973 in 2015 to further resolve this issue through at least 2019		Dominion (100%)
b1318 Install a 115 kV bus tie breaker at Acca substation between the Line #60 and Line #95 breakers		Dominion (100%)
b1319 Resag line #222 to 150 C and upgrade any associated equipment to a 2000A rating to achieve a 706 MVA summer line rating		Dominion (100%)
b1320 Install a 230 kV, 150 MVAR capacitor bank at Southwest substation		Dominion (100%)
b1321 Build a new 230 kV line North Anna – Oak Green and install a 224 MVA 230/115 kV transformer at Oak Green		BGE (0.85%) / Dominion (97.96%) / PEPCO (1.19%)
b1322 Rebuild the 39 Line (Dooms – Sherwood) and the 91 Line (Sherwood – Bremo)		Dominion (100%)
b1323 Install a 224 MVA 230/115 kV transformer at Staunton. Rebuild the 115 kV line #43 section Staunton - Verona		Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1324	Install a 115 kV capacitor bank at Oak Ridge. Install a capacitor bank at New Bohemia. Upgrade 230/34.5 kV transformer #3 at Kings Fork	Dominion (100%)
b1325	Rebuild 15 miles of line #2020 Winfall – Elizabeth City with a minimum 900 MVA rating	Dominion (100%)
b1326	Install a third 168 MVA 230/115 kV transformer at Kitty Hawk with a normally open 230 kV breaker and a low side 115 kV breaker	Dominion (100%)
b1327	Rebuild the 20 mile section of line #22 between Kerr Dam – Eatons Ferry substations	Dominion (100%)
b1328	Uprate the 3.63 mile line section between Possum and Dumfries substations, replace the 1600 amp wave trap at Possum Point	AEC (0.66%) / APS (3.59%) / DPL (0.91%) / Dominion (92.94%) / PECO (1.90%)
b1329	Install line-tie breakers at Sterling Park substation and BECO substation	Dominion (100%)
b1330	Install a five breaker ring bus at the expanded Dulles substation to accommodate the existing Dulles Arrangement and support the Metrorail	Dominion (100%)
b1331	Build a 230 kV line from Shawboro to Aydlett tap and connect Aydlett to the new line	Dominion (100%)
b1332	Build Cannon Branch to Nokesville 230 kV line	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1333	Advance n1728 (Replace Possum Point 230 kV breaker H9T237 with an 80 kA breaker)		Dominion (100%)
b1334	Advance n1748 (Replace Ox 230 kV breaker 22042 with a 63 kA breaker)		Dominion (100%)
b1335	Advance n1749 (Replace Ox 230 kV breaker 220T2603 with a 63 kA breaker)		Dominion (100%)
b1336	Advance n1750 (Replace Ox 230 kV breaker 24842 with a 63 kA breaker)		Dominion (100%)
b1337	Advance n1751 (Replace Ox 230 kV breaker 248T2013 with a 63 kA breaker)		Dominion (100%)
b1503.1	Loop Line #2095 in and out of Waxpool approximately 1.5 miles		Dominion (100%)
b1503.2	Construct a new 230 kV line from Brambleton to BECO Substation of approximately 11 miles with approximately 10 miles utilizing the vacant side of existing Line #2095 structures		Dominion (100%)
b1503.3	Install a one 230 kV breaker, Future 230 kV ring-bus at Waxpool Substation		Dominion (100%)
b1503.4	The new Brambleton - BECO line will feed Shellhorn Substation load and Greenway TX's #2&3 load		Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1506.1	At Gainesville Substation, create two 115 kV straight-buses with a normally open tie-breaker	Dominion (100%)
b1506.2	Upgrade Line 124 (radial from Loudoun) to a minimum continuous rating of 500 MVA and network it into the 115 kV bus feeding NOVEC's DP at Gainesville	Dominion (100%)
b1506.3	Install two additional 230 kV breakers in the ring at Gainesville (may require substation expansion) to accommodate conversion of NOVEC's Gainesville to Wheeler line	Dominion (100%)
b1506.4	Convert NOVEC's Gainesville-Wheeler line from 115 kV to 230 kV (will require Gainesville DP Upgrade replacement of three transformers total at Atlantic and Wheeler Substations)	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1507	Rebuild Mt Storm – Doubs 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (21.37<u>20.09</u>%) / BGE (9.63<u>13.46</u>%) / Dominion (59.60<u>52.77</u>%) / PEPCO (9.40<u>13.68</u>%)</p>
b1508.1	Build a 2nd 230 kV Line Harrisonburg to Endless Caverns	APS (37.05%) / Dominion (62.95%)
b1508.2	Install a 3rd 230-115 kV Tx at Endless Caverns	APS (37.05%) / Dominion (62.95%)
b1508.3	Upgrade a 115 kV shunt capacitor banks at Merck and Edinburg	APS (37.05%) / Dominion (62.95%)
b1536	Advance n1752 (Replace OX 230 breaker 24342 with an (63_kA breaker)	Dominion (100%)
b1537	Advance n1753 (Replace OX 230 breaker 243T2097 with an 63_kA breaker)	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1538	Replace Loudoun 230 kV breaker '29552'		Dominion (100%)
b1571	Replace Acca 115 kV breaker '6072' with 40 kA		Dominion (100%)
b1647	Upgrade the name plate rating at Morrisville 500 kV breaker 'H1T573' with 50_kA breaker		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: Dominion (100%)

b1648	Upgrade name plate rating at Morrisville 500 kV breaker 'H2T545' with 50 kA breaker		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: Dominion (100%)</p>
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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1649	Replace Morrisville 500 kV breaker 'H1T580' with 50 kA breaker	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b1650	Replace Morrisville 500 kV breaker 'H2T569' with 50 kA breaker	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: Dominion (100%)</p>

b1651	Replace Loudoun 230 kV breaker '295T2030' with 63 kA breaker		Dominion (100%)
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b1652	Replace Ox 230_kV breaker '209742' with 63 kA breaker		Dominion (100%)
b1653	Replace Clifton 230_kV breaker '26582' with 63 kA breaker		Dominion (100%)
b1654	Replace Clifton 230_kV breaker '26682' with 63 kA breaker		Dominion (100%)
b1655	Replace Clifton 230_kV breaker '205182' with 63 kA breaker		Dominion (100%)
b1656	Replace Clifton 230_kV breaker '265T266' with 63 kA breaker		Dominion (100%)
b1657	Replace Clifton 230_kV breaker '2051T2063' with 63_kA breaker		Dominion (100%)
b1694	Rebuild Loudoun - Brambleton 500 kV		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: BGE (11.04 <u>13.48</u> %) / Dominion (78.91 <u>73.11</u> %) / PEPCO (10.05 <u>13.41</u> %)

b1696	Install a breaker and a half scheme with a minimum of eight 230 kV breakers for five existing lines at Idylwood 230 kV		AEC (0.46%) / APS (4.18%) / BGE (2.02%) / DPL (0.80%) / Dominion (88.45%) / JCPL (0.64%) / ME (0.50%) / NEPTUNE* (0.06%) / PECO (1.55%) / PEPCO (1.34%)
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1697	Build a 2nd Clark - Idylwood 230 kV line and install 230 kV gas-hybrid breakers at Clark	AEC (1.35%) / APS (15.65%) / BGE (10.53%) / DPL (2.59%) / Dominion (46.97%) / JCPL (2.36%) / ME (1.91%) / NEPTUNE* (0.23%) / PECO (4.48%) / PEPCO (11.23%) / PSEG (2.59%) / RE (0.11%)
b1698	Install a 2nd 500/230 kV transformer at Brambleton	APS (4.21%) / BGE (13.28%) / DPL (1.09%) / Dominion (59.38%) / PEPCO (22.04%)
b1698.1	Install a 500 kV breaker at Brambleton	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: Dominion (100%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1698.6	Replace Brambleton 230 kV breaker '2094T2095'	Dominion (100%)
b1699	Reconfigure Line #203 to feed Edwards Ferry sub radial from Pleasant View 230 kV and install new breaker bay at Pleasant View Sub	Dominion (100%)
b1700	Install a 230/115 kV transformer at the new Liberty substation to relieve Gainesville Transformer #3	Dominion (100%)
b1701	Reconductor line #2104 (Fredericksburg - Cranes Corner 230 kV)	APS (8.66%) / BGE (10.95%) / Dominion (63.30%) / PEPCO (17.09%)
b1724	Install a 2nd 138/115 kV transformer at Edinburg	Dominion (100%)
b1728	Replace the 115/34.5 kV transformer #1 at Hickory with a 230/34.5 kV transformer	Dominion (100%)
b1729	Add 4 breaker ring bus at Burton 115 kV substation and construct a 115 kV line approximately 3.5 miles from Oakwood 115 kV substation to Burton 115 kV substation	Dominion (100%)

~~* Neptune Regional Transmission System, LLC~~

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1730	Install a 230/115 kV transformer at a new Liberty substation		Dominion (100%)
b1731	Uprate or rebuild Four Rivers – Kings Dominion 115 kV line or Install capacitors or convert load from 115 kV system to 230 kV system		Dominion (100%)
b1790	Split Wharton 115 kV capacitor bank into two smaller units and add additional reactive support in area by correcting power factor at Pantego 115 kV DP and FivePoints 115 kV DP to minimum of 0.973		Dominion (100%)
b1791	Wreck and rebuild 2.1 mile section of Line #11 section between Gordonsville and Somerset		APS (5.83%) / BGE (6.25%) / Dominion (78.38%) / PEPCO (9.54%)
b1792	Rebuild line #33 Halifax to Chase City, 26 miles. Install 230 kV 4 breaker ring bus		Dominion (100%)
b1793	Wreck and rebuild remaining section of Line #22, 19.5 miles and replace two pole H frame construction built in 1930		Dominion (100%)
b1794	Split 230 kV Line #2056 (Hornertown - Rocky Mount) and double tap line to Battleboro Substation. Expand station, install a 230 kV 3 breaker ring bus and install a 230/115 kV transformer		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1795	Reconductor segment of Line #54 (Carolina to Woodland 115 kV) to a minimum of 300 MVA		Dominion (100%)
b1796	Install 115 kV 25 MVAR capacitor bank at Kitty Hawk Substation		Dominion (100%)
b1797	Wreck and rebuild 7 miles of the Dominion owned section of Cloverdale - Lexington 500 kV		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (0.79<u>1.27</u>%) / APS (53.70<u>23.58</u>%) / ATSI (0.69%) / BGE (32.30%) / Dayton (0.15<u>0.27</u>%) / DEOK (0.40<u>0.66</u>%) / Dominion (1.13<u>1.92</u>%) / EKPC (0.23<u>0.38</u>%) / PEPCO (43.60<u>38.93</u>%)</p>

b1798	Build a 450 MVAR SVC and 300 MVAR switched shunt at Loudoun 500 kV		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: BGE (<u>8.29</u>%) / Dominion (100<u>79.93</u>%) / PEPCO (<u>11.78</u>%)</p>
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1799	Build 150 MVAR Switched Shunt at Pleasant View 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (1.22<u>0.52</u>%) / <u>APS (3.53%)</u> / DPL (0.33<u>1.02</u>%) / Dominion (91.89<u>90.77</u>%) / <u>EKPC (5.42%)</u> / ME (0.34<u>0.88</u>%) / <u>PECO (1.82%)</u> / <u>PEPSCO (0.831.46%)</u></p>
b1805	Install a 250 MVAR SVC at the existing Mt. Storm 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p>

			DFAX Allocation: APS (78.44 <u>7.31</u> %) / <u>BGE</u> <u>(20.76%)</u> / PEPCO (21.56) <u>31.93</u> %)
b1809	Replace Brambleton 230 kV Breaker '22702'		Dominion (100%)
b1810	Replace Brambleton 230 kV Breaker '227T2094'		Dominion (100%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1905.1	Surry to Skiffes Creek 500 kV Line (7 miles overhead)	<p>Load-Ratio Share Allocation: AEC (1.7<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.1<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b1905.2	Surry 500 kV Station Work	<p>Load-Ratio Share Allocation: AEC (1.7<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.1<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: Dominion (100%)</p>

b1905.3	Skiffes Creek 500-230 kV Tx and Switching Station		Dominion (99.84%) / PEPCO (0.16%)
b1905.4	New Skiffes Creek - Whealton 230 kV line		Dominion (99.84%) / PEPCO (0.16%)
b1905.5	Whealton 230 kV breakers		Dominion (99.84%) / PEPCO (0.16%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1905.6	Yorktown 230 kV work	Dominion (99.84%) / PEPCO (0.16%)
b1905.7	Lanexa 115 kV work	Dominion (99.84%) / PEPCO (0.16%)
b1905.8	Surry 230 kV work	Dominion (99.84%) / PEPCO (0.16%)
b1905.9	Kings Mill, Peninmen, Toano, Waller, Warwick	Dominion (99.84%) / PEPCO (0.16%)
b1906.1	At Yadkin 500 kV, install six 500 kV breakers	Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%)
		DFAX Allocation: Dominion (100%)
b1906.2	Install a 2nd 230/115 kV TX at Yadkin	Dominion (100%)
b1906.3	Install a 2nd 230/115 kV TX at Chesapeake	Dominion (100%)
b1906.4	Uprate Yadkin – Chesapeake 115 kV	Dominion (100%)
b1906.5	Install a third 500/230 kV TX at Yadkin	Dominion (100%)
b1907	Install a 3rd 500/230 kV TX at Clover	APS (5.83%) / BGE (4.74%) / Dominion (81.79%) / PEPCO (7.64%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1908	Rebuild Lexington – Dooms 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: BGE (<u>11.61</u>%) / Dominion (99.00<u>69.16</u>%) / EKPC (1.00<u>4.82</u>%) / PEPCO (<u>14.41</u>%)</p>
b1909	Uprate Bremono – Midlothian 230 kV to its maximum operating temperature	APS (6.31%) / BGE (3.81%) / Dominion (81.90%) / PEPCO (7.98%)
b1910	Build a Suffolk – Yadkin 230 kV line (14 miles) and install 4 breakers	Dominion (100%)
b1911	Add a second Valley 500/230 kV TX	APS (14.85%) / BGE (3.10%) / Dominion (74.12%) / PEPCO (7.93%)
b1912	Install a 500 MVAR SVC at Landstown 230 kV	DEOK (0.46%) / Dominion (99.54%)
b2053	Rebuild 28 mile line	AEP (100%)
b2125	Install four additional 230 kV 100 MVAR variable shunt reactor banks at Clifton, Gallows Road, Garrisonville, and Virginia Hills substations	Dominion (100%)

b2126	Install two additional 230 kV 100 MVAR variable shunt reactor banks at Churchland and Shawboro substations		Dominion (100%)
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* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2181	Add a motor to an existing switch at Prince George to allow for Sectionalizing scheme for line #2124 and allow for Brickhouse DP to be re-energized from the 115 kV source	Dominion (100%)
b2182	Install 230 kV 4-breaker ring at Enterprise 230 kV to isolate load from transmission system when substation initially built	Dominion (100%)
b2183	Add a motor to an existing switch at Keene Mill to allow for a sectionalizing scheme	Dominion (100%)
b2184	Install a 230 kV breaker at Tarboro to split line #229. Each will feed an autotransformer at Tarboro. Install switches on each autotransformer	Dominion (100%)
b2185	Uprate Line #69 segment Reams DP to Purdy (19 miles) from 41 MVA to 162 MVA by replacing 5 structures and re-sagging the line from 50C to 75C	Dominion (100%)
b2186	Install a 2nd 230-115 kV transformer at Earleys connected to the existing 115 kV and 230 kV ring busses. Add a 115 kV breaker and 230 kV breaker to the ring busses	Dominion (100%)
b2187	Install 4 - 230 kV breakers at Shellhorn 230 kV to isolate load	Dominion (100%)

~~* Neptune Regional Transmission System, LLC~~

SCHEDULE 12 – APPENDIX

(22) NAEA Rock Springs, LLC

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b0272.2	Replace a wave trap potential transformer at Rock Springs 500 kV substation – 5025 Line Terminal Upgrade		AEC (1.74 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
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* Neptune Regional Transmission System, LLC

SCHEDULE 12 – APPENDIX A

(2) Baltimore Gas and Electric Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2219	Install a 115 kV tie breaker at Wagner to create a separation from line 110535 and transformer 110-2	BGE (100%)
b2220	Install four 115 kV breakers at Chestnut Hill	BGE (100%)
b2221	Install an SPS to trip approximately 19 MW load at Green St. and Concord	BGE (100%)
b2307	Install a 230/115 kV transformer at Raphael Rd and construct approximately 3 miles of 115 kV line from Raphael Rd. to Joppatowne. Construct a 115 kV three breaker ring at Joppatowne	BGE (100%)
b2308	Build approximately 3 miles of 115 kV underground line from Bestgate tap to Waugh Chapel. Create two breaker bay at Waugh Chapel to accommodate the new underground circuit	BGE (100%)
b2396	Build a new Camp Small 115 kV station and install 30 MVAR capacitor	BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2396.1	Install a tie breaker at Mays Chapel 115 kV substation	BGE (100%)
b2567	Upgrade the Riverside 115 kV substation strain bus conductors on circuits 115012 and 115011 with double bundled 1272 ACSR to achieve ratings of 491/577 MVA SN/SE on both transformer leads	BGE (100%)
b2568	Reconductor Northwest – Northwest #2 115 kV 110574 substation tie circuit with 2167 ACSR to achieve ratings of 400/462 MVA SN/SE	BGE (100%)
b2752.6	Conastone 230 kV substation tie-in work (install a new circuit breaker at Conastone 230 kV and upgrade any required terminal equipment to terminate the new circuit)	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.7	Reconductor/Rebuild the two Conastone – Northwest 230 kV lines and upgrade terminal equipment on both ends	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.8	Replace the Conastone 230 kV '2322 B5' breaker with a 63 kA breaker	BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2752.9	Replace the Conastone 230 kV '2322 B6' breaker with a 63 kA breaker	BGE (100%)
b2766.1	Upgrade substation equipment at Conastone 500 kV to increase facility rating to 2826 MVA normal and 3525 MVA emergency	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (3.52<u>0.72</u>%) / APS (9.95<u>11.06</u>%) / ATSI (10.68<u>1.43</u>%) / BGE (6.92<u>34.25</u>%) / DPL (16.32<u>1.83</u>%) / JCPL (11.32%) / NEPTUNE* (1.22%) / PENELEC (2.30%) / PECO (<u>1.80</u>%) / PEPSCO (12.59<u>35.49</u>%) / PSEG (24.22<u>12.92</u>%) / RE (0.96<u>0.50</u>%)</p>

*Neptune Regional Transmission System, LLC

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2816	Re-connect the Crane – Windy Edge 110591 & 110592 115 kV circuits into the Northeast Substation with the addition of a new 115 kV 3-breaker bay	BGE (100%)
b2992.1	Reconductor the Conastone to Graceton 230 kV 2323 & 2324 circuits. Replace 7 disconnect switches at Conastone substation	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b2992.2	Add Bundle conductor on the Graceton – Bagley – Raphael Road 2305 & 2313 230 kV circuits	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b2992.3	Replacing short segment of substation conductor on the Windy Edge to Glenarm 110512 115 kV circuit	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b2992.4	Reconductor the Raphael Road – Northeast 2315 & 2337 230 kV circuits	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b3228	Replace two (2) relays at Center substation to increase ratings on the Westport to Center 110552 115 kV circuit	BGE (100%)
b3305	Replace Pumphrey 230/115 kV transformer	BGE (100%)

SCHEDULE 12 – APPENDIX A

(3) Delmarva Power & Light Company

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2288	Build a new 138 kV line from Piney Grove – Wattsville		DPL (100%)
b2395	Reconductor the Harmony – Chapel St 138 kV circuit		DPL (100%)
b2569	Replace Terminal equipment at Silverside 69 kV substation		DPL (100%)
b2633.7	Implement high speed relaying utilizing OPGW on Red Lion – Hope Creek 500 kV line		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)
b2633.10	Interconnect the new Silver Run 230 kV substation with existing Red Lion – Cartanza and Red Lion – Cedar Creek 230 kV lines		AEC (8.01%) / BGE (1.94%) / DPL (12.99%) / JCPL (13.85%) / ME (5.88%) / NEPTUNE* (3.45%) / PECO (17.62%) / PPL (14.85%) / PSEG (20.79%) / RE (0.62%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2695	Rebuild Worcester – Ocean Pine 69 kV ckt. 1 to 1400A capability summer emergency	DPL (100%)
b2946	Convert existing Preston 69 kV substation to DPL’s current design standard of a 3-breaker ring bus	DPL (100%)
b2947.1	Upgrade terminal equipment at DPL’s Naamans substation (Darley - Naamans 69 kV)	DPL (100%)
b2947.2	Reconductor 0.11 mile section of Darley - Naamans 69 kV circuit	DPL (100%)
b2948	Upgrade terminal equipment at DPL’s Silverside Road substation (Dupont Edge Moor – Silver R. 69 kV)	DPL (100%)
b2987	Install a 30 MVAR capacitor bank at DPL’s Cool Springs 69 kV substation. The capacitor bank would be installed in two separate 15 MVAR stages allowing DPL operational flexibility	DPL (100%)
b3143.1	Reconductor the Silverside Road – Darley 69 kV circuit	DPL (100%)
b3143.2	Reconductor the Darley – Naamans 69 kV circuit	DPL (100%)
b3143.3	Replace three (3) existing 1200 A disconnect switches with 2000 A disconnect switches and install three (3) new 2000 A disconnect switches at Silverside 69 kV station	DPL (100%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b3143.4	Replace two (2) 1200 A disconnect switches with 2000 A disconnect switches. Replace existing 954 ACSR and 500 SDCU stranded bus with two (2) 954 ACSR stranded bus. Reconfigure four (4) CTs from 1200 A to 2000 A and install two (2) new 2000 A disconnect switches and two (2) new 954 ACSR stranded bus at Naamans 69 kV station		DPL (100%)
b3143.5	Replace four (4) 1200 A disconnect switches with 2000 A disconnect switches. Replace existing 954 ACSR and 1272 MCM AL stranded bus with two (2) 954 ACSR stranded bus. Reconfigure eight (8) CTs from 1200 A to 2000 A and install four (4) new 2000 A (310 MVA SE / 351 MVA WE) disconnect switches and two (2) new 954 ACSR (331 MVA SE / 369 MVA WE) stranded bus at Darley 69 kV station		DPL (100%)
b3155	Rebuild approx. 12 miles of Wye Mills – Stevensville line		DPL (100%)
b3224	Replace a disconnect switch and reconductor a short span of the Mt. Pleasant – Middletown tap 138 kV line		DPL (100%)

SCHEDULE 12 – APPENDIX A

(4) Jersey Central Power & Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2234	260 MVAR reactor at West Wharton 230 kV	JCPL (100%)
b2270	Advance Raritan River - Replace G1047E breaker at the 230 kV Substation	JCPL (100%)
b2271	Advance Raritan River - Replace G1047F breaker at the 230 kV Substation	JCPL (100%)
b2272	Advance Raritan River - Replace T1034E breaker at the 230 kV Substation	JCPL (100%)
b2273	Advance Raritan River - Replace T1034F breaker at the 230 kV Substation	JCPL (100%)
b2274	Advance Raritan River - Replace I1023E breaker at the 230 kV Substation	JCPL (100%)
b2275	Advance Raritan River - Replace I1023F breaker at the 230 kV Substation	JCPL (100%)
b2289	Freneau Substation - upgrade 2.5 inch pipe to bundled 1590 ACSR conductor at the K1025 230 kV Line Terminal	JCPL (100%)
b2292	Replace the Whippany 230 kV breaker B1 (CAP) with 63 kA breaker	JCPL (100%)
b2357	Replace the East Windsor 230 kV breaker 'E1' with 63 kA breaker	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2495	Replace transformer leads on the Glen Gardner 230/34.5 kV #1 transformer	JCPL (100%)
b2496	Replace Franklin 115/34.5 kV transformer #2 with 90 MVA transformer	JCPL (100%)
b2497	Reconductor 0.9 miles of the Captive Plastics to Morris Park 34.5 kV circuit (397ACSR) with 556 ACSR	JCPL (100%)
b2498	Extend 5.8 miles of 34.5 kV circuit from North Branch substation to Lebanon substation with 397 ACSR and install 34.5 kV breaker at Lebanon substation	JCPL (100%)
b2500	Upgrade terminal equipment at Monroe on the Englishtown to Monroe (H34) 34.5 kV circuit	JCPL (100%)
b2570	Upgrade limiting terminal facilities at Feneau, Parlin, and Williams substations	JCPL (100%)
b2571	Upgrade the limiting terminal facilities at both Jackson and North Hanover	JCPL (100%)
b2586	Upgrade the V74 34.5 kV transmission line between Allenhurst and Elberon Substations	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.6	Implement high speed relaying utilizing OPGW on Deans – East Windsor 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>
b2633.6.1	Implement high speed relaying utilizing OPGW on East Windsor - New Freedom 500 kV	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) /</p>

		JCPL (0.01%)
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* Neptune Regional Transmission System, LLC

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2676	Install one (1) 72 MVAR fast switched capacitor at the Englishtown 230 kV substation	JCPL (100%)
b2708	Replace the Oceanview 230/34.5 kV transformer #1	JCPL (100%)
b2709	Replace the Deep Run 230/34.5 kV transformer #1	JCPL (100%)
b2754.2	Install 5 miles of optical ground wire (OPGW) between Gilbert and Springfield 230 kV substations	JCPL (100%)
b2754.3	Install 7 miles of all-dielectric self-supporting (ADSS) fiber optic cable between Morris Park and Northwood 230 kV substations	JCPL (100%)
b2754.6	Upgrade relaying at Morris Park 230 kV	JCPL (100%)
b2754.7	Upgrade relaying at Gilbert 230 kV	JCPL (100%)
b2809	Install a bypass switch at Mount Pleasant 34.5 kV substation to allow the Mount Pleasant substation load to be removed from the N14 line and transfer to O769 line	JCPL (100%)
b3023	Replace West Wharton 115 kV breakers 'G943A' and 'G943B' with 40 kA breakers	JCPL (100%)
b3042	Replace substation conductor at Raritan River 230 kV substation on the Kilmer line	JCPL (100%)

	terminal		
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Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3130	Construct seven new 34.5 kV circuits on existing pole lines (total of 53.5 miles), rebuild/reconductor two 34.5 kV circuits (total of 5.5 miles) and install a second 115/34.5 kV transformer (Werner)		JCPL (100%)
b3130.1	Construct a new 34.5 kV circuit from Oceanview to Allenhurst 34.5 kV (4 miles)		JCPL (100%)
b3130.2	Construct a new 34.5 kV circuit from Atlantic to Red Bank 34.5 kV (12 miles)		JCPL (100%)
b3130.3	Construct a new 34.5 kV circuit from Freneau to Taylor Lane 34.5 kV (6.5 miles)		JCPL (100%)
b3130.4	Construct a new 34.5 kV circuit from Keyport to Belford 34.5 kV (6 miles)		JCPL (100%)
b3130.5	Construct a new 34.5 kV circuit from Red Bank to Belford 34.5 kV (5 miles)		JCPL (100%)
b3130.6	Construct a new 34.5 kV circuit from Werner to Clark Street (7 miles)		JCPL (100%)
b3130.7	Construct a new 34.5 kV circuit from Atlantic to Freneau (13 miles)		JCPL (100%)
b3130.8	Rebuild/reconductor the Atlantic – Camp Woods Switch Point (3.5 miles) 34.5 kV circuit		JCPL (100%)
b3130.9	Rebuild/reconductor the Allenhurst – Elberon (2 miles) 34.5 kV circuit		JCPL (100%)
b3130.10	Install 2nd 115/34.5 kV transformer at Werner		JCPL (100%)

	substation		
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Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3238	Replace seven (7) overdutied 34.5 kV breakers with 50 kA rated equipment at the Whippany substation		JCPL (100%)
b3239	Replace fourteen (14) overdutied 34.5 kV breakers with 63 kA rated equipment		JCPL (100%)

SCHEDULE 12 – APPENDIX A

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2006.1.1	Loop the 2026 (TMI – Hosensack 500 kV) line in to the Lauschtown	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: BGE (<u>19.51</u>%) / PPL (100<u>80.49</u>%)</p>
b2006.2.1	Upgrade relay at South Reading on the 1072 230 V line	ME-PPL (100%)
b2006.4	Replace the South Reading 69 kV '81342' breaker with 40 kA breaker	ME (100%)
b2006.5	Replace the South Reading 69 kV '82842' breaker with 40 kA breaker	ME (100%)
b2452	Install 2nd Hunterstown 230/115 kV transformer	APS (8.30%) / BGE (14.70%) / DEOK (0.48%) / Dominion (36.92%) / ME (23.85%) / PEPCO (15.75%)

* Neptune Regional Transmission System, LLC

Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2452.1	Reconductor Hunterstown - Oxford 115 kV line		APS (8.30%) / BGE (14.70%) / DEOK (0.48%) / Dominion (36.92%) / ME (23.85%) / PEPCO (15.75%)
b2452.3	Replace the Hunterstown 115 kV breaker '96192' with 40 kA		ME (100%)
b2588	Install a 36.6 MVAR 115 kV capacitor at North Bangor substation		ME (100%)
b2637	Convert Middletown Junction 230 kV substation to nine bay double breaker configuration.		ME (100%)
b2644	Install a 28.8 MVAR 115 kV capacitor at the Mountain substation		ME (100%)
b2688.1	Lincoln Substation: Upgrade the bus conductor and replace CTs.		AEP (12.91%) / APS (19.04%) / ATSI (1.24%) / ComEd (0.35%) / Dayton (1.45%) / DEOK (2.30%) / DL (1.11%) / Dominion (44.85%) / EKPC (0.78%) / PEPCO (15.85%) / RECO (0.12%)
b2688.2	Germantown Substation: Replace 138/115 kV transformer with a 135/180/224 MVA bank. Replace Lincoln 115 kV breaker, install new 138 kV breaker, upgrade bus conductor and adjust/replace CTs.		AEP (12.91%) / APS (19.04%) / ATSI (1.24%) / ComEd (0.35%) / Dayton (1.45%) / DEOK (2.30%) / DL (1.11%) / Dominion (44.85%) / EKPC (0.78%) / PEPCO (15.85%) / RECO (0.12%)

Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2743.4	Upgrade terminal equipment at Hunterstown 500 kV on the Conemaugh – Hunterstown 500 kV circuit		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.4	Upgrade terminal equipment and required relay communication at TMI 500 kV: on the Beach Bottom – TMI 500 kV circuit		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2749	Replace relay at West Boyertown 69 kV station on the West Boyertown – North Boyertown 69 kV circuit		ME (100%)
b2765	Upgrade bus conductor at Gardners 115 kv substation; Upgrade bus conductor and adjust CT ratios at Carlisle Pike 115 kV		ME (100%)
b2950	Upgrade limiting 115 kV switches on the 115 kV side of the 230/115 kV Northwood substation and adjust setting on limiting ZR relay		ME (100%)
b3136	Replace bus conductor at Smith 115 kV substation		ME (100%)
b3145	Rebuild the Hunterstown – Lincoln 115 kV Line No. 962 (approx. 2.6 miles). Upgrade limiting terminal equipment at Hunterstown and Lincoln		AEP (16.60%) / APS (8.09%) / BGE (2.74%) / Dayton (2.00%) / DEOK (0.35%) / DL (1.31%) / Dominion (52.77%) / EKPC (1.54%) / OVEC (0.06%) / PEPCO (14.54%)
b3311	Install a 120.75 kV 79.4 MVAR capacitor bank at Yorkana 115 kV		ME (100%)

SCHEDULE 12 – APPENDIX A

(7) Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2212 Shawville Substation: Relocate 230 kV and 115 kV controls from the generating station building to new control building		PENELEC (100%)
b2293 Replace the Erie South 115 kV breaker 'Buffalo Rd' with 40 kA breaker		PENELEC (100%)
b2294 Replace the Johnstown 115 kV breaker 'Bon Aire' with 40 kA breaker		PENELEC (100%)
b2302 Replace the Erie South 115 kV breaker 'French #2' with 40 kA breaker		PENELEC (100%)
b2304 Replace the substation conductor and switch at South Troy 115 kV substation		PENELEC (100%)
b2371 Install 75 MVAR capacitor at the Erie East 230 kV substation		PENELEC (100%)
b2441 Install +250/-100 MVAR SVC at the Erie South 230 kV station		PENELEC (100%)
b2442 Install three 230 kV breakers on the 230 kV side of the Lewistown #1, #2 and #3 transformers		PENELEC (100%)
b2450 Construct a new 115 kV line from Central City West to Bedford North		PENELEC (100%)
b2463 Rebuild and reconductor 115 kV line from East Towanda to S. Troy and upgrade terminal equipment at East Towanda, Tennessee Gas and South Troy		PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2494 Construct Warren 230 kV ring bus and install a second Warren 230/115 kV transformer		PENELEC (100%)
b2552.1 Reconductor the North Meshoppen – Oxbow-Lackawanna 230 kV circuit and upgrade terminal equipment (MAIT portion)		PENELEC (99.00 <u>95.95</u> %) / PPL (1.00 <u>4.05</u> %)
b2573 Replace the Warren 115 kV 'B12' breaker with a 40 kA breaker		PENELEC (100%)
b2587 Reconfigure Pierce Brook 345 kV station to a ring bus and install a 125 MVAR shunt reactor at the station		PENELEC (100%)
b2621 Replace relays at East Towanda and East Sayre 115 kV substations (158/191 MVA SN/SE)		PENELEC (100%)
b2677 Replace wave trap, bus conductor and relay at Hilltop 115 kV substation. Replace relays at Prospect and Cooper substations		PENELEC (100%)
b2678 Convert the East Towanda 115 kV substation to breaker and half configuration		PENELEC (100%)
b2679 Install a 115 kV Venango Jct. line breaker at Edinboro South		PENELEC (100%)
b2680 Install a 115 kV breaker on Hooversville #1 115/23 kV transformer		PENELEC (100%)
b2681 Install a 115 kV breaker on the Eclipse #2 115/34.5 kV transformer		PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2682	Install two 21.6 MVAR capacitors at the Shade Gap 115 kV substation	PENELEC (100%)
b2683	Install a 36 MVAR 115 kV capacitor and associated equipment at Morgan Street substation	PENELEC (100%)
b2684	Install a 36 MVAR 115 kV capacitor at Central City West substation	PENELEC (100%)
b2685	Install a second 115 kV 3000A bus tie breaker at Hooversville substation	PENELEC (100%)
b2735	Replace the Warren 115 kV 'NO. 2 XFMR' breaker with 40 kA breaker	PENELEC (100%)
b2736	Replace the Warren 115 kV 'Warren #1' breaker with 40 kA breaker	PENELEC (100%)
b2737	Replace the Warren 115 kV 'A TX #1' breaker with 40 kA breaker	PENELEC (100%)
b2738	Replace the Warren 115 kV 'A TX #2' breaker with 40 kA breaker	PENELEC (100%)
b2739	Replace the Warren 115 kV 'Warren #2' breaker with 40 kA breaker	PENELEC (100%)
b2740	Revise the reclosing of the Hooversville 115 kV 'Ralphton' breaker	PENELEC (100%)
b2741	Revise the reclosing of the Hooversville 115 kV 'Statler Hill' breaker	PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2743.2	Tie in new Rice substation to Conemaugh – Hunterstown 500 kV	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2743.3	Upgrade terminal equipment at Conemaugh 500 kV on the Conemaugh – Hunterstown 500 kV circuit	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2748	Install two 28 MVAR capacitors at Tiffany 115 kV substation	PENELEC (100%)
b2767	Construct a new 345 kV breaker string with three (3) 345 kV breakers at Homer City and move the North autotransformer connection to this new breaker string	PENELEC (100%)
b2803	Reconductor 3.7 miles of the Bethlehem – Leretto 46 kV circuit and replace terminal equipment at Summit 46 kV	PENELEC (100%)
b2804	Install a new relay and replace 4/0 CU bus conductor at Huntingdon 46 kV station, on the Huntingdon – C tap 46 kV circuit	PENELEC (100%)
b2805	Install a new relay and replace 4/0 CU & 250 CU substation conductor at Hollidaysburg 46 kV station, on the Hollidaysburg – HCR Tap 46 kV circuit	PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2806 Install a new relay and replace meter at the Raystown 46 kV substation, on the Raystown – Smithfield 46 kV circuit		PENELEC (100%)
b2807 Replace the CHPV and CRS relay, and adjust the IAC overcurrent relay trip setting; or replace the relay at Eldorado 46 kV substation, on the Eldorado – Gallitzin 46 kV circuit		PENELEC (100%)
b2808 Adjust the JBC overcurrent relay trip setting at Raystown 46 kV, and replace relay and 4/0 CU bus conductor at Huntingdon 46 kV substations, on the Raystown – Huntingdon 46 kV circuit		PENELEC (100%)
b2865 Replace Seward 115 kV breaker "Jackson Road" with 63 kA breaker		PENELEC (100%)
b2866 Replace Seward 115 kV breaker "Conemaugh N." with 63 kA breaker		PENELEC (100%)
b2867 Replace Seward 115 kV breaker "Conemaugh S." with 63 kA breaker		PENELEC (100%)
b2868 Replace Seward 115 kV breaker "No.8 Xfmr" with 63 kA breaker		PENELEC (100%)
b2944 Install two 345 kV 80 MVAR shunt reactors at Mainesburg station		PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2951	Seward, Blairsville East, Shelocta work	PENELEC (100%)
b2951.1	Upgrade Florence 115 kV line terminal equipment at Seward SS	PENELEC (100%)
b2951.2	Replace Blairsville East / Seward 115 kV line tuner, coax, line relaying and carrier set at Shelocta SS	PENELEC (100%)
b2951.3	Replace Seward / Shelocta 115 kV line CVT, tuner, coax, and line relaying at Blairsville East SS	PENELEC (100%)
b2952	Replace the North Meshoppen #3 230/115 kV transformer eliminating the old reactor and installing two breakers to complete a 230 kV ring bus at North Meshoppen	PENELEC (100%)
b2953	Replace the Keystone 500 kV breaker "NO. 14 Cabot" with 50 kA breaker	PENELEC (100%)
b2954	Replace the Keystone 500 kV breaker "NO. 16 Cabot" with 50 kA breaker	PENELEC (100%)
b2984	Reconfigure the bus at Glory and install a 50.4 MVAR 115 kV capacitor	PENELEC (100%)
b3007.2	Reconductor the Blairsville East to Social Hall 138 kV line and upgrade terminal equipment - PENELEC portion. 4.8 miles total. The new conductor will be 636 ACSS replacing the existing 636 ACSR conductor. At Blairsville East, the wave trap and breaker disconnects will be replaced	PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3008 Upgrade Blairsville East 138/115 kV transformer terminals. This project is an upgrade to the tap of the Seward – Shelocta 115 kV line into Blairsville substation. The project will replace the circuit breaker and adjust relay settings		PENELEC (100%)
b3009 Upgrade Blairsville East 115 kV terminal equipment. Replace 115 kV circuit breaker and disconnects		PENELEC (100%)
b3014 Replace the existing Shelocta 230/115 kV transformer and construct a 230 kV ring bus		PENELEC (100%)
b3016 Upgrade terminal equipment at Corry East 115 kV to increase rating of Four Mile to Corry East 115 kV line. Replace bus conductor		PENELEC (100%)
b3017.1 Rebuild Glade to Warren 230 kV line with hi-temp conductor and substation terminal upgrades. 11.53 miles. New conductor will be 1033 ACSS. Existing conductor is 1033 ACSR		PENELEC (100%)
b3017.2 Glade substation terminal upgrades. Replace bus conductor, wave traps, and relaying		PENELEC (100%)
b3017.3 Warren substation terminal upgrades. Replace bus conductor, wave traps, and relaying		PENELEC (100%)
b3022 Replace Saxton 115 kV breaker ‘BUS TIE’ with a 40 kA breaker		PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3024 Upgrade terminal equipment at Corry East 115 kV to increase rating of Warren to Corry East 115 kV line. Replace bus conductor		PENELEC (100%)
b3043 Install one 115 kV 36 MVAR capacitor at West Fall 115 kV substation		PENELEC (100%)
b3073 Replace the Blairsville East 138/115 kV transformer and associated equipment such as breaker disconnects and bus conductor		PENELEC (100%)
b3077 Reconductor the Franklin Pike B – Wayne 115 kV line (6.78 miles)		PENELEC (100%)
b3078 Reconductor the 138 kV bus and replace the line trap, relays Morgan Street. Reconductor the 138 kV bus at Venango Junction		PENELEC (100%)
b3082 Construct 4-breaker 115 kV ring bus at Geneva		PENELEC (100%)
b3137 Rebuild 20 miles of the East Towanda – North Meshoppen 115 kV line		PENELEC (100%)
b3144 Upgrade bus conductor and relay panels of the Jackson Road – Nanty Glo 46 kV SJN line		PENELEC (100%)
b3144.1 Upgrade line relaying and substation conductor on the 46 kV Nanty Glo line exit at Jackson Road substation		PENELEC (100%)
b3144.2 Upgrade line relaying and substation conductor on the 46 kV Jackson Road line exit at Nanty Glo substation		PENELEC (100%)
b3154 Install one (1) 13.2 MVAR 46 kV capacitor at the Logan substation		PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3231	Replace the existing No. 2 cap bank breaker at Huntingdon substation with a new breaker with higher interrupting capability	PENELEC (100%)
b3232	Replace the existing Williamsburg, ALH (Hollidaysburg) and bus section breaker at the Altoona substation with a new breaker with higher interrupting capability	PENELEC (100%)
b3233	Install one (1) 34 MVAR 115 kV shunt reactor and breaker. Install one (1) 115 kV circuit breaker to expand the substation to a 4-breaker ring bus	PENELEC (100%)
b3237	Install two (2) 46 kV 6.12 MVAR capacitors effective at Mt. Union	PENELEC (100%)
b3245	Construct a new breaker-and-a-half substation near Tiffany substation. All transmission assets and lines will be relocated to the new substation. The two (2) distribution transformers will be fed via two (2) dedicated 115 kV feeds to the existing Tiffany substation	PENELEC (100%)
b3306	Install a second 125 MVAR 345 kV shunt reactor and associated equipment at Pierce Brook substation. Install a 345 kV breaker on the high side of the 345/230 kV transformer #1	PENELEC (100%)

SCHEDULE 12 – APPENDIX A

(8) PECO Energy Company

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2130	Replace Waneeta 138 kV breaker '15' with 63 kA rated breaker		PECO (100%)
b2131	Replace Waneeta 138 kV breaker '35' with 63 kA rated breaker		PECO (100%)
b2132	Replace Waneeta 138 kV breaker '875' with 63 kA rated breaker		PECO (100%)
b2133	Replace Waneeta 138 kV breaker '895' with 63 kA rated breaker		PECO (100%)
b2134	Plymouth Meeting 230 kV breaker '115' with 63 kA rated breaker		PECO (100%)
b2222	Install a second Eddystone 230/138 kV transformer		PECO (100%)
b2222.1	Replace the Eddystone 138 kV #205 breaker with 63 kA breaker		PECO (100%)
b2222.2	Increase Rating of Eddystone #415 138 kV Breaker		PECO (100%)
b2236	50 MVAR reactor at Buckingham 230 kV		PECO (100%)
b2527	Replace Whitpain 230 kV breaker '155' with 80 kA breaker		PECO (100%)
b2528	Replace Whitpain 230 kV breaker '525' with 80 kA breaker		PECO (100%)
b2529	Replace Whitpain 230 kV breaker '175' with 80 kA breaker		PECO (100%)
b2549	Replace terminal equipment inside Chichester substation on the 220-36 (Chichester – Eddystone) 230 kV line		PECO (100%)

PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2550	Replace terminal equipment inside Nottingham substation on the 220-05 (Nottingham – Daleville- Bradford) 230 kV line		PECO (100%)
b2551	Replace terminal equipment inside Llanerch substation on the 130-45 (Eddystone to Llanerch) 138 kV line		PECO (100%)
b2572	Replace the Peach Bottom 500 kV ‘#225’ breaker with a 63 kA breaker		PECO (100%)
b2694	Increase ratings of Peach Bottom 500/230 kV transformer to 1479 MVA normal/1839 MVA emergency		AEC (3.97%)/ AEP (5.77%)/ APS (4.27%)/ ATSI (6.15%)/ BGE (1.63%)/ ComEd (0.72%)/ Dayton (1.06%)/ DEOK (1.97%)/ DL (2.25%)/ Dominion (0.35%)/ DPL (14.29%)/ ECP** (0.69%)/ EKPC (0.39%)/ HTP*** (0.96%)/ JCPL (6.84%) MetEd (3.28%)/ NEPTUNE* (2.14%)/ PECO (16.42%)/ PENELEC (3.94%)/ PPL (8.32%)/ PSEG (14.13%)/ RECO (0.44%)
b2752.2	Tie in new Furnace Run substation to Peach Bottom – TMI 500 kV		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.3	Upgrade terminal equipment and required relay communication at Peach Bottom 500 kV: on the Beach Bottom – TMI 500 kV circuit		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)

*Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2766.2	Upgrade substation equipment at Peach Bottom 500 kV to increase facility rating to 2826 MVA normal and 3525 MVA emergency	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEC (3.52 <u>0.72</u> %) / APS (9.95 <u>11.06</u> %) / ATSI (10.68 <u>1.43</u> %) / BGE (6.92 <u>34.25</u> %) / DPL (16.32 <u>1.83</u> %) / JCPL (11.32 %) / NEPTUNE* (1.22 %) / PENELEC (2.30 %) / PECO (12.59 <u>35.49</u> %) / PEPSCO (24.22 <u>12.92</u> %) / RE (0.96 <u>0.50</u> %)

*Neptune Regional Transmission System, LLC

PECO Energy Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2774	Reconductor the Emilie - Falls 138 kV line, and replace station cable and relay		PECO (100%)
b2775	Reconductor the Falls - U.S. Steel 138 kV line		PECO (100%)
b2850	Replace the Waneeta 230 kV "285" with 63 kA breaker		PECO (100%)
b2852	Replace the Chichester 230 kV "195" with 63 kA breaker		PECO (100%)
b2854	Replace the North Philadelphia 230 kV "CS 775" with 63 kA breaker		PECO (100%)
b2855	Replace the North Philadelphia 230 kV "CS 885" with 63 kA breaker		PECO (100%)
b2856	Replace the Parrish 230 kV "CS 715" with 63 kA breaker		PECO (100%)
b2857	Replace the Parrish 230 kV "CS 825" with 63 kA breaker		PECO (100%)
b2858	Replace the Parrish 230 kV "CS 935" with 63 kA breaker		PECO (100%)
b2859	Replace the Plymouth Meeting 230 kV "215" with 63 kA breaker		PECO (100%)
b2860	Replace the Plymouth Meeting 230 kV "235" with 63 kA breaker		PECO (100%)
b2861	Replace the Plymouth Meeting 230 kV "325" with 63 kA breaker		PECO (100%)
b2862	Replace the Grays Ferry 230 kV "705" with 63 kA breaker		PECO (100%)

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2863	Replace the Grays Ferry 230 kV "985" with 63 kA breaker	PECO (100%)
b2864	Replace the Grays Ferry 230 kV "775" with 63 kA breaker	PECO (100%)
b2923	Replace the China Tap 230 kV 'CS 15' breaker with a 63 kA breaker	PECO (100%)
b2924	Replace the Emilie 230 kV 'CS 15' breaker with 63 kA breaker	PECO (100%)
b2925	Replace the Emilie 230 kV 'CS 25' breaker with 63 kA breaker	PECO (100%)
b2926	Replace the Chichester 230 kV '215' breaker with 63 kA breaker	PECO (100%)
b2927	Replace the Plymouth Meeting 230 kV '125' breaker with 63 kA breaker	PECO (100%)
b2985	Replace the 230 kV CB #225 at Linwood Substation (PECO) with a double circuit breaker (back to back circuit breakers in one device)	PECO (100%)
b3041	Peach Bottom – Furnace Run 500 kV terminal equipment	PECO (100%)
b3120	Replace the Whitpain 230 kV breaker "125" with a 63 kA breaker	PECO (100%)
b3138	Move 2 MVA load from the Roxborough to Bala substation. Adjust the tap setting on the Master 138/69 kV transformer #2	PECO (100%)
b3146	Upgrade the Richmond 69 kV breaker "140" with 40	PECO (100%)

	kA breaker		
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SCHEDULE 12 – APPENDIX A

(9) PPL Electric Utilities Corporation

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1813.12	Replace the Blooming Grove 230 kV breaker 'Peckville'		PPL (100%)
b2223	Rebuild and reconductor 2.6 miles of the Sunbury - Dauphin 69 kV circuit		PPL (100%)
b2224	Add a 2nd 150 MVA 230/69 kV transformer at Springfield		PPL (100%)
b2237	150 MVAR shunt reactor at Alburtis 500 kV		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: PPL (100%)
b2238	100 MVAR shunt reactor at Elmsport 230 kV		PPL (100%)

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2269 Rebuild approximately 23.7 miles of the Susquehanna - Jenkins 230 kV circuit. This replaces a temporary SPS that is already planned to mitigate the violation until this solution is implemented		PPL (100%)
b2282 Rebuild the Siegfried-Frackville 230 kV line		PPL (100%)
b2406.1 Rebuild Stanton-Providence 69 kV 2&3 9.5 miles with 795 SCSR		PPL (100%)
b2406.2 Reconnector 7 miles of the Lackawanna - Providence 69 kV #1 and #2 with 795 ACSR		PPL (100%)
b2406.3 Rebuild SUB2 Tap 1 (Lackawanna - Scranton 1) 69 kV 1.5 miles 556 ACSR		PPL (100%)
b2406.4 Rebuild SUB2 Tap 2 (Lackawanna - Scranton 1) 69 kV 1.6 miles 556 ACSR		PPL (100%)
b2406.5 Create Providence - Scranton 69 kV #1 and #2, 3.5 miles with 795 ACSR		PPL (100%)
b2406.6 Rebuild Providence 69 kV switchyard		PPL (100%)
b2406.7 Install 2 - 10.8 MVAR capacitors at EYNO 69 kV		PPL (100%)
b2406.8 Rebuild Stanton 230 kV yard		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2446	Replace wave trap and protective relays at Montour	PPL (100%)
b2447	Replace wave trap and protective relays at Montour	PPL (100%)
b2448	Install a 2nd Sunbury 900 MVA 500-230kV transformer and associated equipment	PPL (100%)
b2552.2	Reconductor the North Meshoppen - Oxbow – Lackawanna 230 kV circuit and upgrade terminal equipment (PPL portion)	PENELEC (98.8495.62 %) / PPL (1.164.38 %)
b2574	Replace the Sunbury 230 kV 'MONTOUR NORT' breaker with a 63 kA breaker	PPL (100%)
b2690	Reconductor two spans of the Graceton – Safe Harbor 230 kV transmission line. Includes termination point upgrades	PPL (100%)
b2691	Reconductor three spans limiting Brunner Island – Yorkana 230 kV line, add 2 breakers to Brunner Island switchyard, upgrade associated terminal equipment	PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2716	Add a 200 MVAR shunt reactor at Lackawanna 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: PPL (100%)</p>
b2754.1	Install 7 miles of optical ground wire (OPGW) between Gilbert and Springfield 230 kV substations	PPL (100%)
b2754.4	Use ~ 40 route miles of existing fibers on PPL 230 kV system to establish direct fiber circuits	PPL (100%)
b2754.5	Upgrade relaying at Martins Creek 230 kV	PPL (100%)
b2756	Install 2% reactors at Martins Creek 230 kV	PPL (100%)
b2813	Expand existing Lycoming 69 kV yard to double bus double breaker arrangement	PPL (100%)

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2824	Reconfigure/Expand the Lackawanna 500 kV substation by adding a third bay with three breakers	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: PPL (100%)</p>
b2838	Build a new 230/69 kV substation by tapping the Montour – Susquehanna 230 kV double circuits and Berwick – Hunlock & Berwick – Colombia 69 kV circuits	PPL (100%)
b2979	Replace Martins Creek 230 kV circuit breakers with 80 kA rating	PPL (100%)
b3221	Replace terminal equipment (bus conductor) on the 230 kV side of the Steel City 500/230 kV Transformer #1	PPL (100%)
b3222	Install one (1) 7.2 MVAR fixed cap bank on the Lock Haven – Reno 69 kV line and one (1) 7.2 MVAR fixed cap bank on the Lock Haven – Flemington 69 kV line	PPL (100%)

	near the Flemington 69/12 kV substation		
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* Neptune Regional Transmission System, LLC

SCHEDULE 12 – APPENDIX A

(12) Public Service Electric and Gas Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2218 Rebuild 4 miles of overhead line from Edison - Meadow Rd - Metuchen (Q 1317)		PSEG (100%)
b2239 50 MVAR reactor at Saddlebrook 230 kV		PSEG (100%)
b2240 50 MVAR reactor at Athenia 230 kV		PSEG (100%)
b2241 50 MVAR reactor at Bergen 230 kV		PSEG (100%)
b2242 50 MVAR reactor at Hudson 230 kV		PSEG (100%)
b2243 Two 50 MVAR reactors at Stanley Terrace 230 kV		PSEG (100%)
b2244 50 MVAR reactor at West Orange 230 kV		PSEG (100%)
b2245 50 MVAR reactor at Aldene 230 kV		PSEG (100%)
b2246 150 MVAR reactor at Camden 230 kV		PSEG (100%)
b2247 150 MVAR reactor at Gloucester 230 kV		PSEG (100%)
b2248 50 MVAR reactor at Clarksville 230 kV		PSEG (100%)
b2249 50 MVAR reactor at Hinchmans 230 kV		PSEG (100%)
b2250 50 MVAR reactor at Beaverbrook 230 kV		PSEG (100%)
b2251 50 MVAR reactor at Cox's Corner 230 kV		PSEG (100%)

**Neptune Regional Transmission System, LLC*

The Annual Revenue Requirement for all Public Service Electric and Gas Company Projects (Required Transmission Enhancements) in this Section 12 shall be as specified in Attachment 7 of Attachment H-10A and under the procedures detailed in Attachment H-10B.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2276	Eliminate the Sewaren 138 kV bus by installing a new 230 kV bay at Sewaren 230 kV		PSEG (100%)
b2276.1	Convert the two 138 kV circuits from Sewaren – Metuchen to 230 kV circuits including Lafayette and Woodbridge substation		PSEG (100%)
b2276.2	Reconfigure the Metuchen 230 kV station to accommodate the two converted circuits		PSEG (100%)
b2290	Replace disconnect switches at Kilmer, Lake Nilson and Greenbrook 230 kV substations on the Raritan River - Middlesex (I-1023) circuit		PSEG (100%)
b2291	Replace circuit switcher at Lake Nelson 230 kV substation on the Raritan River - Middlesex (W-1037) circuit		PSEG (100%)
b2295	Replace the Salem 500 kV breaker 10X with 63 kA breaker		PSEG (100%)
b2421	Install all 69 kV lines to interconnect Plainfield, Greenbrook, and Bridgewater stations and establish the 69 kV network		PSEG (100%)
b2421.1	Install two 18 MVAR capacitors at Plainfield and S. Second St substation		PSEG (100%)

~~*Neptune Regional Transmission System, LLC~~

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2421.2	Install a second four (4) breaker 69 kV ring bus at Bridgewater Switching Station	PSEG (100%)
b2436.10	Convert the Bergen – Marion 138 kV path to double circuit 345 kV and associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: PSEG (100%)</p>
b2436.21	Convert the Marion - Bayonne "L" 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation:</p>

			PSEG (100%)
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*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2436.22	Convert the Marion - Bayonne "C" 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: PSEG (96.17<u>96.26</u>%) / RE (3.83<u>3.74</u>%)</p>
b2436.33	Construct a new Bayway – Bayonne 345 kV circuit and any associated substation upgrades	PSEG (96.17 <u>96.26</u> %) / RE (3.83 <u>3.74</u> %)
b2436.34	Construct a new North Ave – Bayonne 345 kV circuit and any associated substation upgrades	PSEG (96.17 <u>96.26</u> %) / RE (3.83 <u>3.74</u> %)

*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2436.50	Construct a new North Ave - Airport 345 kV circuit and any associated substation upgrades		PSEG (100%)
b2436.60	Relocate the underground portion of North Ave - Linden "T" 138 kV circuit to Bayway, convert it to 345 kV, and any associated substation upgrades		PSEG (96.17 <u>96.26</u> %) / RE (3.83 <u>3.74</u> %)
b2436.70	Construct a new Airport - Bayway 345 kV circuit and any associated substation upgrades		PSEG (100%)
b2436.81	Relocate the overhead portion of Linden - North Ave "T" 138 kV circuit to Bayway, convert it to 345 kV, and any associated substation upgrades		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: PSEG (96.17 <u>96.26</u> %) / RE (3.83 <u>3.74</u> %)

*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2436.83	Convert the Bayway - Linden "Z" 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (96.1796.26%) / RE (3.833.74%)</p>
b2436.84	Convert the Bayway – Linden “W” 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (96.1796.26%) / RE (3.833.74%)</p>

*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2436.85	Convert the Bayway – Linden “M” 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (96.1796.26%) / RE (3.833.74%)</p>
b2436.90	Relocate Farragut - Hudson "B" and "C" 345 kV circuits to Marion 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: PSEG (100%)</p>

b2436.91	Relocate the Hudson 2 generation to inject into the 345 kV at Marion and any associated upgrades		PSEG (100%)
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*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2437.10	New Bergen 345/230 kV transformer and any associated substation upgrades	PSEG (100%)
b2437.11	New Bergen 345/138 kV transformer #1 and any associated substation upgrades	PSEG (100%)
b2437.20	New Bayway 345/138 kV transformer #1 and any associated substation upgrades	PSEG (100%)
b2437.21	New Bayway 345/138 kV transformer #2 and any associated substation upgrades	PSEG (100%)
b2437.30	New Linden 345/230 kV transformer and any associated substation upgrades	PSEG (96.17 <u>96.26</u> %) / RE (3.833 <u>3.74</u> %)
b2437.33	New Bayonne 345/69 kV transformer and any associated substation upgrades	PSEG (100%)
b2438	Install two reactors at Tosco 230 kV	PSEG (100%)
b2439	Replace the Tosco 138 kV breaker 'CB1/2 (CBT)' with 63 kA	PSEG (100%)
b2474	Rebuild Athenia 138 kV to 80 kA	PSEG (100%)
b2589	Install a 100 MVAR 230 kV shunt reactor at Mercer station	PSEG (100%)
b2590	Install two 75 MVAR 230 kV capacitors at Sewaren station	PSEG (100%)

*~~Neptune Regional Transmission System, LLC~~

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.3	Install an SVC at New Freedom 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>
b2633.4	Add a new 500 kV bay at Hope Creek (Expansion of Hope Creek substation)	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEC (8.01%) / BGE (1.94%) / DPL (12.99%) / JCPL (13.85%) / ME (5.88%) / NEPTUNE*</p>

			(3.45%) / PECO (17.62%) / PPL (14.85%) / PSEG (20.79%) / RE (0.62%)
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* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.5	Add a new 500/230 kV autotransformer at Hope Creek and a new Hope Creek 230 kV substation	AEC (8.01%) / BGE (1.94%) / DPL (12.99%) / JCPL (13.85%) / ME (5.88%) / NEPTUNE* (3.45%) / PECO (17.62%) / PPL (14.85%) / PSEG (20.79%) / RE (0.62%)
b2633.8	Implement high speed relaying utilizing OPGW on Salem – Orchard 500 kV, Hope Creek – New Freedom 500 kV, New Freedom - Salem 500 kV, Hope Creek – Salem 500 kV, and New Freedom – Orchard 500 kV lines	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
		DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)

*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.91	Implement changes to the tap settings for the two Salem units' step up transformers	AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)
b2633.92	Implement changes to the tap settings for the Hope Creek unit's step up transformers	AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)
b2702	Install a 350 MVAR reactor at Roseland 500 kV	Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%) DFAX Allocation: PSEG (100%)
b2703	Install a 100 MVAR reactor at Bergen 230 kV	PSEG (100%)
b2704	Install a 150 MVAR reactor at Essex 230 kV	PSEG (100%)
b2705	Install a 200 MVAR reactor (variable) at Bergen 345 kV	PSEG (100%)
b2706	Install a 200 MVAR reactor (variable) at Bayway 345 kV	PSEG (100%)
b2707	Install a 100 MVAR reactor at Bayonne 345 kV	PSEG (100%)

*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2712	Replace the Bergen 138 kV '40P' breaker with 80 kA breaker		PSEG (100%)
b2713	Replace the Bergen 138 kV '90P' breaker with 80 kA breaker		PSEG (100%)
b2722	Reconductor the 1 mile Bergen – Bergen GT 138 kV circuit (B-1302)		PSEG (100%)
b2755	Build a third 345 kV source into Newark Airport		PSEG (100%)
b2810.1	Install second 230/69 kV transformer at Cedar Grove		PSEG (100%)
b2810.2	Build a new 69 kV circuit from Cedar Grove to Great Notch		PSEG (100%)
b2811	Build 69 kV circuit from Locust Street to Delair		PSEG (100%)
b2812	Construct River Road to Tonnelle Avenue 69kV Circuit		PSEG (100%)
b2825.1	Install 2X50 MVAR shunt reactors at Kearny 230 kV substation		PSEG (100%)
b2825.2	Increase the size of the Hudson 230 kV, 2X50 MVAR shunt reactors to 2X100 MVAR		PSEG (100%)
b2825.3	Install 2X100 MVAR shunt reactors at Bayway 345 kV substation		PSEG (100%)
b2825.4	Install 2X100 MVAR shunt reactors at Linden 345 kV substation		PSEG (100%)
b2835	Convert the R-1318 and Q1317 (Edison – Metuchen) 138 kV circuits to one 230 kV circuit		See sub-IDs for cost allocations

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2835.1	Convert the R-1318 and Q-1317 (Edison – Metuchen) 138 kV circuits to one 230 kV circuit (Brunswick – Meadow Road)	AEC (12.08 <u>30.19</u> %) / PECO (22.78 <u>69.81</u> %) -PSEG (62.65 %) / RE (2.49 %)
b2835.2	Convert the R-1318 and Q-1317 (Edison - Metuchen) 138 kV circuits to one 230 kV circuit (Meadow Road - Pierson Ave)	AEC (11.09 <u>30.21</u> %) / PECO (20.90 <u>69.79</u> %) -PSEG (65.40 %) / RE (2.61 %)
b2835.3	Convert the R-1318 and Q-1317 (Edison - Metuchen) 138 kV circuits to one 230 kV circuit (Pierson Ave - Metuchen)	AEC (10.19 <u>30.21</u> %) / PECO (19.21 <u>69.79</u> %) -PSEG (67.90 %) / RE (2.70 %)
b2836	Convert the N-1340 and T-1372/D-1330 (Brunswick – Trenton) 138 kV circuits to 230 kV circuits	See sub-IDs for cost allocations
b2836.1	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Brunswick - Hunterglen)	AEC (22.42 <u>100</u> %) -PSEG (74.61 %) / RE (2.97 %)
b2836.2	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Hunterglen - Trenton)	AEC (19.58 <u>49.19</u> %) / NEPTUNE* (80.42 <u>50.81</u> %)
b2836.3	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Brunswick - Devils Brook)	AEC <u>PSEG</u> (100%)
b2836.4	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Devils Brook - Trenton)	AEC <u>PSEG</u> (100%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2837	Convert the F-1358/Z-1326 and K1363/Y-1325 (Trenton – Burlington) 138 kV circuits to 230 kV circuits	See sub-IDs for cost allocations
b2837.1	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Trenton - Yardville K)	NEPTUNE* (100%)
b2837.2	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Yardville - Ward Ave K)	NEPTUNE* (100 8.89%) / PSEG (87.70%) / RE (3.41%)
b2837.3	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Brunswick - Devils Brook)	NEPTUNE* (100 8.27%) / PSEG (88.30%) / RE (3.43%)
b2837.4	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Crosswicks - Bustleton Y)	NEPTUNE* (8.50 6.79%) / PSEG (88.00 89.73%) / RE CO (3.503.48%)
b2837.5	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Bustleton - Burlington Y)	NEPTUNE* (6.94 5.62%) / PSEG (89.53 90.85%) / RE CO (3.563.53%)
b2837.6	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Trenton - Yardville F)	NEPTUNE* (100%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2837.7 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Yardville - Ward Ave F)		NEPTUNE* (100%)
b2837.8 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Ward Ave - Crosswicks Z)		NEPTUNE* (100%)
b2837.9 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Crosswicks - Williams Z)		NEPTUNE* (100 8.22%) / PSEG (88.35%) / RE (3.43%)
b2837.10 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Williams - Bustleton Z)		NEPTUNE* (8.5 26.71%) / PSEG (87.9 88.80%) / RE 0 (3.5 3.49%)
b2837.11 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Bustleton - Burlington Z)		NEPTUNE* (6.3 5.20%) / PSEG (90.1 91.26%) / RE 0 (3.5 3.54%)
b2870 Build new 138/26 kV Newark GIS station in a building (layout #1A) located adjacent to the existing Newark Switch and demolish the existing Newark Switch		PSEG (100%)
b2933 Third Source for Springfield Rd. and Stanley Terrace Stations		See sub-IDs for cost allocations

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2933.1	Construct a 230/69 kV station at Springfield	PSEG (100%)
b2933.2	Construct a 230/69 kV station at Stanley Terrace	PSEG (100%)
b2933.31	Construct a 69 kV network between Front Street, Springfield and Stanley Terrace (Front Street - Springfield)	NEPTUNE* (100%)
b2933.32	Construct a 69 kV network between Front Street, Springfield and Stanley Terrace (Springfield – Stanley Terrace)	PSEG (100%)
b2934	Build a new 69 kV line between Hasbrouck Heights and Carlstadt	PSEG (100%)
b2935	Third Supply for Runnemede 69 kV and Woodbury 69 kV	PSEG (100%)
b2935.1	Build a new 230/69 kV switching substation at Hilltop utilizing the PSE&G property and the K-2237 230 kV line	PSEG (100%)
b2935.2	Build a new line between Hilltop and Woodbury 69 kV providing the 3rd supply	PSEG (100%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2935.3	Convert Runnemede's straight bus to a ring bus and construct a 69 kV line from Hilltop to Runnemede 69 kV	PSEG (100%)
b2955	Wreck and rebuild the VFT – Warinanco – Aldene 230 kV circuit with paired conductor	JCPL (43.23 91.73%) / NEPTUNE* (3.54 8.27%) / PSEG (51.19%) / RE (2.04%)
b2956	Replace existing cable on Cedar Grove - Jackson Rd. with 5000_kcmil XLPE cable	PSEG (100%)
b2982	Construct a 230/69 kV station at Hillsdale Substation and tie to Paramus and Dumont at 69 kV	PSEG (100%)
b2982.1	Install a 69 kV ring bus and one (1) 230/69 kV transformer at Hillsdale	PSEG (100%)
b2982.2	Construct a 69 kV network between Paramus, Dumont, and Hillsdale Substation using existing 69 kV circuits	PSEG (100%)
b2983	Convert Kuller Road to a 69/13 kV station	PSEG (100%)
b2983.1	Install 69 kV ring bus and two (2) 69/13 kV transformers at Kuller Road	PSEG (100%)
b2983.2	Construct a 69 kV network between Kuller Road, Passaic, Paterson, and Harvey (new Clifton area switching station)	PSEG (100%)
b2986	Replace the existing Roseland – Branchburg – Pleasant Valley 230 kV corridor with new structures	See sub-IDs for cost allocations

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2986.11	Roseland-Branchburg 230 kV corridor rebuild (Roseland - Readington)	PSEG (100%)
b2986.12	Roseland-Branchburg 230 kV corridor rebuild (Readington - Branchburg)	JCPL (100%)
b2986.21	Branchburg-Pleasant Valley 230 kV corridor rebuild (Branchburg - East Flemington)	PECO (100%)
b2986.22	Branchburg-Pleasant Valley 230 kV corridor rebuild (East Flemington - Pleasant Valley)	NEPTUNE* (0.77%) / PECO (99.23%)
b2986.23	Branchburg-Pleasant Valley 230 kV corridor rebuild (Pleasant Valley - Rocktown)	JCPL (31.39%) / NEPTUNE* (5.26%) / PECO (6.68%) / PSEG (54.43%) / RECO (2.23%)
b2986.24	Branchburg-Pleasant Valley 230 kV corridor rebuild (the PSEG portion of Rocktown - Buckingham)	JCPL (37.95%) / NEPTUNE* (4.70%) / PECO (5.38%) / PSEG (49.92%) / RECO (2.05%)
b3003	Construct a 230/69 kV station at Maywood	PSEG (100%)
b3003.1	Purchase properties at Maywood to accommodate new construction	PSEG (100%)
b3003.2	Extend Maywood 230 kV bus and install one (1) 230 kV breaker	PSEG (100%)
b3003.3	Install one (1) 230/69 kV transformer at Maywood	PSEG (100%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3003.4	Install Maywood 69 kV ring bus		PSEG (100%)
b3003.5	Construct a 69 kV network between Spring Valley Road, Hasbrouck Heights, and Maywood		PSEG (100%)
b3004	Construct a 230/69/13 kV station by tapping the Mercer – Kuser Rd 230 kV circuit		PSEG (100%)
b3004.1	Install a new Clinton 230 kV ring bus with one (1) 230/69 kV transformer Mercer - Kuser Rd 230 kV circuit		PSEG (100%)
b3004.2	Expand existing 69 kV ring bus at Clinton Ave with two (2) additional 69 kV breakers		PSEG (100%)
b3004.3	Install two (2) 69/13 kV transformers at Clinton Ave		PSEG (100%)
b3004.4	Install 18 MVAR capacitor bank at Clinton Ave 69 kV		PSEG (100%)
b3025	Construct two (2) new 69/13 kV stations in the Doremus area and relocate the Doremus load to the new stations		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3025.1	Install a new 69/13 kV station (Vauxhall) with a ring bus configuration		PSEG (100%)
b3025.2	Install a new 69/13 kV station (19th Ave) with a ring bus configuration		PSEG (100%)
b3025.3	Construct a 69 kV network between Stanley Terrace, Springfield Road, McCarter, Federal Square, and the two new stations (Vauxhall & 19th Ave)		PSEG (100%)

SCHEDULE 12 – APPENDIX A

(14) Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2117 Reconductor 0.33 miles of the Parkersburg - Belpre line and upgrade Parkersburg terminal equipment		APS (100%)
b2118 Add 44 MVAR Cap at New Martinsville		APS (100%)
b2120 Six-Wire Lake Lynn - Lardin 138 kV circuits		APS (100%)
b2142 Replace Weirton 138 kV breaker “Wylie Ridge 210” with 63 kA breaker		APS (100%)
b2143 Replace Weirton 138 kV breaker “Wylie Ridge 216” with 63 kA breaker		APS (100%)
b2174.8 Replace relays at Mitchell substation		APS (100%)
b2174.9 Replace primary relay at Piney Fork substation		APS (100%)
b2174.10 Perform relay setting changes at Bethel Park substation		APS (100%)
b2213 Armstrong Substation: Relocate 138 kV controls from the generating station building to new control building		APS (100%)
b2214 Albright Substation: Install a new control building in the switchyard and relocate controls and SCADA equipment from the generating station building the new control center		APS (100%)
b2215 Rivesville Switching Station: Relocate controls and SCADA equipment from the generating station building to new control building		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2216 Willow Island: Install a new 138 kV cross bus at Belmont Substation and reconnect and reconfigure the 138 kV lines to facilitate removal of the equipment at Willow Island switching station		APS (100%)
b2235 130 MVAR reactor at Monocacy 230 kV		APS (100%)
b2260 Install a 32.4 MVAR capacitor at Bartonville		APS (100%)
b2261 Install a 33 MVAR capacitor at Damascus		APS (100%)
b2267 Replace 1000 Cu substation conductor and 1200 amp wave trap at Marlowe		APS (100%)
b2268 Reconductor 6.8 miles of 138 kV 336 ACSR with 336 ACSS from Double Toll Gate to Riverton		APS (100%)
b2299 Reconductor from Collins Ferry - West Run 138 kV with 556 ACSS		APS (100%)
b2300 Reconductor from Lake Lynn - West Run 138 kV		APS (100%)
b2341 Install 39.6 MVAR Capacitor at Shaffers Corner 138 kV Substation		APS (100%)
b2342 Construct a new 138 kV switching station (Shuman Hill substation), which is next the Mobley 138 kV substation and install a 31.7 MVAR capacitor		APS (100%)
b2343 Install a 31.7 MVAR capacitor at West Union 138 kV substation		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2362	Install a 250 MVAR SVC at Squab Hollow 230 kV	APS (100%)
b2362.1	Install a 230 kV breaker at Squab Hollow 230 kV substation	APS (100%)
b2363	Convert the Shingletown 230 kV bus into a 6 breaker ring bus	APS (100%)
b2364	Install a new 230/138 kV transformer at Squab Hollow 230 kV substation. Loop the Forest - Elko 230 kV line into Squab Hollow. Loop the Brookville - Elko 138 kV line into Squab Hollow	APS (100%)
b2412	Install a 44 MVAR 138 kV capacitor at the Hempfield 138 kV substation	APS (100%)
b2433.1	Install breaker and a half 138 kV substation (Waldo Run) with 4 breakers to accommodate service to MarkWest Sherwood Facility including metering which is cut into Glen Falls Lamberton 138 kV line	APS (100%)
b2433.2	Install a 70 MVAR SVC at the new WaldoRun 138 kV substation	APS (100%)
b2433.3	Install two 31.7 MVAR capacitors at the new WaldoRun 138 kV substation	APS (100%)
b2424	Replace the Weirton 138 kV breaker 'WYLIE RID210' with 63 kA breakers	APS (100%)
b2425	Replace the Weirton 138 kV breaker 'WYLIE RID216' with 63 kA breakers	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2426	Replace the Oak Grove 138 kV breaker 'OG1' with 63 kA breakers	APS (100%)
b2427	Replace the Oak Grove 138 kV breaker 'OG2' with 63 kA breakers	APS (100%)
b2428	Replace the Oak Grove 138 kV breaker 'OG3' with 63 kA breakers	APS (100%)
b2429	Replace the Oak Grove 138 kV breaker 'OG4' with 63 kA breakers	APS (100%)
b2430	Replace the Oak Grove 138 kV breaker 'OG5' with 63 kA breakers	APS (100%)
b2431	Replace the Oak Grove 138 kV breaker 'OG6' with 63 kA breakers	APS (100%)
b2432	Replace the Ridgeley 138 kV breaker 'RC1' with a 40 kA rated breaker	APS (100%)
b2440	Replace the Cabot 138 kV breaker 'C9-KISKI VLY' with 63 kA	APS (100%)
b2472	Replace the Ringgold 138 kV breaker 'RCM1' with 40 kA breakers	APS (100%)
b2473	Replace the Ringgold 138 kV breaker '#4 XMFR' with 40 kA breakers	APS (100%)
b2475	Construct a new line between Oak Mound 138 kV substation and Waldo Run 138 kV substation	APS (100%)
b2545.1	Construct a new 138 kV substation (Shuman Hill substation) connected to the Fairview –Willow Island (84) 138 kV line	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2545.2	Install a ring bus station with five active positions and two 52.8 MVAR capacitors with 0.941 mH reactors	APS (100%)
b2545.3	Install a +90/-30 MVAR SVC protected by a 138 kV breaker	APS (100%)
b2545.4	Remove the 31.7 MVAR capacitor bank at Mobley 138 kV	APS (100%)
b2546	Install a 51.8 MVAR (rated) 138 kV capacitor at Nyswaner 138 kV substation	APS (100%)
b2547.1	Construct a new 138 kV six breaker ring bus Hillman substation	APS (100%)
b2547.2	Loop Smith- Imperial 138 kV line into the new Hillman substation	APS (100%)
b2547.3	Install +125/-75 MVAR SVC at Hillman substation	APS (100%)
b2547.4	Install two 31.7 MVAR 138 kV capacitors	APS (100%)
b2548	Eliminate clearance de-rate on Wylie Ridge – Smith 138 kV line and upgrade terminals at Smith 138 kV, new line ratings 294 MVA (Rate A)/350 MVA (Rate B)	APS (100%)
b2612.1	Relocate All Dam 6 138 kV line and the 138 kV line to AE units 1&2	APS (100%)
b2612.2	Install 138 kV, 3000A bus-tie breaker in the open bus-tie position next to the Shaffers corner 138 kV line	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2612.3	Install a 6-pole manual switch, foundation, control cable, and all associated facilities		APS (100%)
b2666	Yukon 138 kV Breaker Replacement		APS (100%)
b2666.1	Replace Yukon 138 kV breaker "Y-11(CHARL1)" with an 80 kA breaker		APS (100%)
b2666.2	Replace Yukon 138 kV breaker "Y-13(BETHEL)" with an 80 kA breaker		APS (100%)
b2666.3	Replace Yukon 138 kV breaker "Y-18(CHARL2)" with an 80 kA breaker		APS (100%)
b2666.4	Replace Yukon 138 kV breaker "Y-19(CHARL2)" with an 80 kA breaker		APS (100%)
b2666.5	Replace Yukon 138 kV breaker "Y-4(4B-2BUS)" with an 80 kA breaker		APS (100%)
b2666.6	Replace Yukon 138 kV breaker "Y-5(LAYTON)" with an 80 kA breaker		APS (100%)
b2666.7	Replace Yukon 138 kV breaker "Y-8(HUNTING)" with an 80 kA breaker		APS (100%)
b2666.8	Replace Yukon 138 kV breaker "Y-9(SPRINGD)" with an 80 kA breaker		APS (100%)
b2666.9	Replace Yukon 138 kV breaker "Y-10(CHRL-SP)" with an 80 kA breaker		APS (100%)
b2666.10	Replace Yukon 138 kV breaker "Y-12(1-1BUS)" with an 80 kA breaker		APS (100%)
b2666.11	Replace Yukon 138 kV breaker "Y-14(4-1BUS)" with an 80 kA breaker		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2666.12	Replace Yukon 138 kV breaker “Y-2(1B-BETHE)” with an 80 kA breaker		APS (100%)
b2666.13	Replace Yukon 138 kV breaker “Y-21(SHEPJ)” with an 80 kA breaker		APS (100%)
b2666.14	Replace Yukon 138 kV breaker “Y-22(SHEPHJT)” with an 80 kA breaker		APS (100%)
b2672	Change CT Ratio at Seneca Caverns from 120/1 to 160/1 and adjust relay settings accordingly		APS (100%)
b2688.3	Carroll Substation: Replace the Germantown 138 kV wave trap, upgrade the bus conductor and adjust CT ratios		AEP (12.91%) / APS (19.04%) / ATSI (1.24%) / ComEd (0.35%) / Dayton (1.45%) / DEOK (2.30%) / DL (1.11%) / Dominion (44.85%) / EKPC (0.78%) / PEPCO (15.85%) / RECO (0.12%)
b2689.3	Upgrade terminal equipment at structure 27A		APS (100%)
b2696	Upgrade 138 kV substation equipment at Butler, Shanor Manor and Krendale substations. New rating of line will be 353 MVA summer normal/422 MVA emergency		APS (100%)
b2700	Remove existing Black Oak SPS		APS (100%)
b2743.6	Reconfigure the Ringgold 230 kV substation to double bus double breaker scheme		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2743.6.1	Replace the two Ringgold 230/138 kV transformers	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2743.7	Rebuild/Reconductor the Ringgold – Catocin 138 kV circuit and upgrade terminal equipment on both ends	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2747.1	Relocate the FirstEnergy Pratts 138 kV terminal CVTs at Gordonsville substation to allow for the installation of a new motor operated switch being installed by Dominion	APS (100%)
b2763	Replace the breaker risers and wave trap at Bredinville 138 kV substation on the Cabrey Junction 138 kV terminal	APS (100%)
b2764	Upgrade Fairview 138 kV breaker risers and disconnect leads; Replace 500 CU breaker risers and 556 ACSR disconnect leads with 795 ACSR	APS (100%)
b2964.1	Replace terminal equipment at Pruntytown and Glen Falls 138 kV station	APS (100%)
b2964.2	Reconductor approximately 8.3 miles of the McAlpin - White Hall Junction 138 kV circuit	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2965	Reconductor the Charleroi – Allenport 138 kV line with 954 ACSR conductor. Replace breaker risers at Charleroi and Allenport	DL (100%)
b2966	Reconductor the Yukon – Smithton – Shepler Hill Jct 138 kV line with 795 ACSS conductor. Replace Line Disconnect Switch at Yukon	APS (100%)
b2966.1	Reconductor the Yukon - Smithton - Shepler Hill Jct 138 kV line and replace terminal equipment as necessary to achieve required rating	APS (100%)
b2967	Convert the existing 6 wire Butler - Shanor Manor - Krendale 138 kV line into two separate 138 kV lines. New lines will be Butler - Keisters and Butler - Shanor Manor - Krendale 138 kV	APS (100%)
b2970	Ringgold – Catoctin Solution	APS (100%)
b2970.1	Install two new 230 kV positions at Ringgold for 230/138 kV transformers	APS (100%)
b2970.2	Install new 230 kV position for Ringgold – Catoctin 230 kV line	APS (100%)
b2970.3	Install one new 230 kV breaker at Catoctin substation	APS (100%)
b2970.4	Install new 230/138 kV transformer at Catoctin substation. Convert Ringgold – Catoctin 138 kV line to 230 kV operation	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2970.5	Convert Garfield 138/12.5 kV substation to 230/12.5 kV		APS (100%)
b2996	Construct new Flint Run 500/138 kV substation		See sub-IDs for cost allocations
b2996.1	Construct a new 500/138 kV substation as a 4-breaker ring bus with expansion plans for double-breaker-double-bus on the 500 kV bus and breaker-and-a-half on the 138 kV bus to provide EHV source to the Marcellus shale load growth area. Projected load growth of additional 160 MVA to current plan of 280 MVA, for a total load of 440 MVA served from Waldo Run substation. Construct additional 3-breaker string at Waldo Run 138 kV bus. Relocate the Sherwood #2 line terminal to the new string. Construct two single circuit Flint Run - Waldo Run 138 kV lines using 795 ACSR (approximately 3 miles). After terminal relocation on new 3-breaker string at Waldo Run, terminate new Flint Run 138 kV lines onto the two open terminals		APS (100%)
b2996.2	Loop the Belmont – Harrison 500 kV line into and out of the new Flint Run 500 kV substation (less than 1 mile). Replace primary relaying and carrier sets on Belmont and Harrison 500 kV remote end substations		APS (100%)
b2996.3	Upgrade two (2) existing 138 kV breakers (Rider 50 and #1/4 transformer breaker) at Glen Falls with 63 kA 3000A units		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3005	Reconductor 3.1 mile 556 ACSR portion of Cabot to Butler 138 kV with 556 ACSS and upgrade terminal equipment. 3.1 miles of line will be reconducted for this project. The total length of the line is 7.75 miles	APS (100%)
b3006	Replace four Yukon 500/138 kV transformers with three transformers with higher rating and reconfigure 500 kV bus	APS (73.55 70.87%) / DL (26.45 29.13%)
b3007.1	Reconductor the Blairsville East to Social Hall 138 kV line and upgrade terminal equipment - AP portion. 4.8 miles total. The new conductor will be 636 ACSS replacing the existing 636 ACSR conductor. At Social Hall, meters, relays, bus conductor, a wave trap, circuit breaker and disconnects will be replaced	APS (100%)
b3010	Replace terminal equipment at Keystone and Cabot 500 kV buses. At Keystone, bus tubing and conductor, a wave trap, and meter will be replaced. At Cabot, a wave trap and bus conductor will be replaced	APS (100%)
b3011.1	Construct new Route 51 substation and connect 10 138 kV lines to new substation	DL (100%)
b3011.2	Upgrade terminal equipment at Yukon to increase rating on Yukon to Charleroi #2 138 kV line (New Yukon to Route 51 #4 138 kV line)	DL (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b3011.3	Upgrade terminal equipment at Yukon to increase rating on Yukon to Route 51 #1 138 kV line		DL (100%)
b3011.4	Upgrade terminal equipment at Yukon to increase rating on Yukon to Route 51 #2 138 kV line		DL (100%)
b3011.5	Upgrade terminal equipment at Yukon to increase rating on Yukon to Route 51 #3 138 kV line		DL (100%)
b3011.6	Upgrade remote end relays for Yukon – Allenport – Iron Bridge 138 kV line		DL (100%)
b3012.1	Construct two new 138 kV ties with the single structure from APS’s new substation to Duquesne’s new substation. The estimated line length is approximately 4.7 miles. The line is planned to use multiple ACSS conductors per phase		ATSI (38.21%) / DL (61.79%)
b3012.3	Construct a new Elrama – Route 51 138 kV No.3 line: reconductor 4.7 miles of the existing line, and construct 1.5 miles of a new line to the reconducted portion. Install a new line terminal at APS Route 51 substation		DL (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3013	Reconductor Vasco Tap to Edgewater Tap 138 kV line. 4.4 miles. The new conductor will be 336 ACSS replacing the existing 336 ACSR conductor	APS (100%)
b3015.6	Reconductor Elrama to Mitchell 138 kV line – AP portion. 4.2 miles total. 2x 795 ACSS/TW 20/7	DL (100%)
b3015.8	Upgrade terminal equipment at Mitchell for Mitchell – Elrama 138 kV line	APS (100%)
b3028	Upgrade substation disconnect leads at William 138 kV substation	APS (100%)
b3051.1	Roncerverte cap bank and terminal upgrades	APS (100%)
b3052	Install a 138 kV capacitor (29.7 MVAR effective) at West Winchester 138 kV	APS (100%)
b3064.3	Upgrade line relaying at Piney Fork and Bethel Park for Piney For – Elrama 138 kV line and Bethel Park – Elrama 138 kV	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3068	Reconductor the Yukon – Westraver 138 kV line (2.8 miles), replace the line drops and relays at Yukon 138 kV and replace switches at Westraver 138 kV bus		APS (100%)
b3069	Reconductor the Westraver – Route 51 138 kV line (5.63 miles) and replace line switches at Westraver 138 kV bus		APS (100%)
b3070	Reconductor the Yukon – Route 51 #1 138 kV line (8 miles), replace the line drops, relays and line disconnect switch at Yukon 138 kV bus		APS (100%)
b3071	Reconductor the Yukon – Route 51 #2 138 kV line (8 miles) and replace relays at Yukon 138 kV bus		APS (100%)
b3072	Reconductor the Yukon – Route 51 #3 138 kV line (8 miles) and replace relays at Yukon 138 kV bus		APS (100%)
b3074	Reconductor the 138 kV bus at Armstrong substation		APS (100%)
b3075	Replace the 500/138 kV transformer breaker and reconductor 138 kV bus at Cabot substation		APS (100%)
b3076	Reconductor the Edgewater – Loyalhanna 138 kV line (0.67 mile)		APS (100%)
b3079	Replace the Wylie Ridge 500/345 kV transformer #7		ATSI (72.30%) / DL (27.70%)
b3083	Reconductor the 138 kV bus at Butler and reconductor the 138 kV bus and replace line trap at Karns City		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3128	Relocate 34.5 kV lines from generating station roof R. Paul Smith 138 kV station		APS (100%)
b3230	At Enon substation install a second 138 kV, 28.8 MVAR nameplate, capacitor and the associated 138 kV capacitor switcher		APS (100%)
b3240	Upgrade Cherry Run and Morgan terminals to make the transmission line the limiting component		APS (100%)
b3241	Install 138 kV, 36 MVAR capacitor and a 5 uF reactor protected by a 138 kV capacitor switcher. Install a breaker on the 138 kV Junction terminal. Install a 138 kV 3.5 uF reactor on the existing Hardy 138 kV capacitor		APS (100%)
b3242	Reconfigure Stonewall 138 kV substation from its current configuration to a six-breaker, breaker-and-a-half layout and add two (2) 36 MVAR capacitors with capacitor switchers		APS (100%)

SCHEDULE 12 – APPENDIX A

- (17) *American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company*

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1570.4	Add a 345 kV breaker at Marysville station and a 0.1 mile 345 kV line extension from Marysville to the new 345/69 kV Dayton transformer	AEP (100%)
b1660.1	Cloverdale: install 6-765 kV breakers, incremental work for 2 additional breakers, reconfigure and relocate miscellaneous facilities, establish 500 kV station and 500 kV tie with 765 kV station	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: BGE (44.54%) / Dayton (8.37<u>0.16</u>%) / DEOK (21.94<u>0.40</u>%) / Dominion (56.40<u>1.04</u>%) / EKPC (13.29<u>0.24</u>%) / PEPCO (53.62%)</p>

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b1797.1	Reconductor the AEP portion of the Cloverdale - Lexington 500 kV line with 2-1780 ACSS		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
			DFAX Allocation: AEP (0.79 <u>1.27</u> %) / APS (53.70 <u>23.58</u> %) / <u>ATSI (0.69%)</u> / <u>BGE (32.30%)</u> / Dayton (0.15 <u>0.27</u> %) / DEOK (0.40 <u>0.66</u> %) / Dominion (1.13 <u>1.92</u> %) / EKPC (0.23 <u>0.38</u> %) / PEPCO (43.60 <u>38.93</u> %)
b2055	Upgrade relay at Brues station		AEP (100%)
b2122.3	Upgrade terminal equipment at Howard on the Howard - Brookside 138 kV line to achieve ratings of 252/291 (SN/SE)		AEP (100%)
b2122.4	Perform a sag study on the Howard - Brookside 138 kV line		AEP (100%)

b2229	Install a 300 MVAR reactor at Dequine 345 kV		AEP (100%)
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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2230	Replace existing 150 MVAR reactor at Amos 765 kV substation on Amos - N. Proctorville - Hanging Rock with 300 MVAR reactor		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: AEP (100%)
b2231	Install 765 kV reactor breaker at Dumont 765 kV substation on the Dumont - Wilton Center line		AEP (100%)
b2232	Install 765 kV reactor breaker at Marysville 765 kV substation on the Marysville - Maliszewski line		AEP (100%)
b2233	Change transformer tap settings for the Baker 765/345 kV transformer		AEP (100%)
b2252	Loop the North Muskingum - Crooksville 138 kV line into AEP's Philo 138 kV station which lies		AEP (100%)

	approximately 0.4 miles from the line		
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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2253	Install an 86.4 MVAR capacitor bank at Gorsuch 138 kV station in Ohio		AEP (100%)
b2254	Rebuild approximately 4.9 miles of Corner - Degussa 138 kV line in Ohio		AEP (100%)
b2255	Rebuild approximately 2.8 miles of Maliszewski - Polaris 138 kV line in Ohio		AEP (100%)
b2256	Upgrade approximately 36 miles of 138 kV through path facilities between Harrison 138 kV station and Ross 138 kV station in Ohio		AEP (100%)
b2257	Rebuild the Pokagon - Corey 69 kV line as a double circuit 138 kV line with one side at 69 kV and the other side as an express circuit between Pokagon and Corey stations		AEP (100%)
b2258	Rebuild 1.41 miles of #2 CU 46 kV line between Tams Mountain - Slab Fork to 138 kV standards. The line will be strung with 1033 ACSR		AEP (100%)
b2259	Install a new 138/69 kV transformer at George Washington 138/69 kV substation to provide support to the 69 kV system in the area		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2286	Rebuild 4.7 miles of Muskingum River - Wolf Creek 138 kV line and remove the 138/138 kV transformer at Wolf Creek Station		AEP (100%)
b2287	Loop in the Meadow Lake - Olive 345 kV circuit into Reynolds 765/345 kV station		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2344.1	Establish a new 138/12 kV station, transfer and consolidate load from its Nicholasville and Marcellus 34.5 kV stations at this new station		AEP (100%)
b2344.2	Tap the Hydramatic – Valley 138 kV circuit (~ structure 415), build a new 138 kV line (~3.75 miles) to this new station		AEP (100%)
b2344.3	From this station, construct a new 138 kV line (~1.95 miles) to REA’s Marcellus station		AEP (100%)
b2344.4	From REA’s Marcellus station construct new 138 kV line (~2.35 miles) to a tap point on Valley – Hydramatic 138 kV ckt (~structure 434)		AEP (100%)
b2344.5	Retire sections of the 138 kV line in between structure 415 and 434 (~ 2.65 miles)		AEP (100%)
b2344.6	Retire AEP’s Marcellus 34.5/12 kV and Nicholasville 34.5/12 kV stations and also the Marcellus – Valley 34.5 kV line		AEP (100%)
b2345.1	Construct a new 69 kV line from Hartford to Keeler (~8 miles)		AEP (100%)
b2345.2	Rebuild the 34.5 kV lines between Keeler - Sister Lakes and Glenwood tap switch to 69 kV (~12 miles)		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2345.3	Implement in - out at Keeler and Sister Lakes 34.5 kV stations		AEP (100%)
b2345.4	Retire Glenwood tap switch and construct a new Rothadew station. These new lines will continue to operate at 34.5 kV		AEP (100%)
b2346	Perform a sag study for Howard - North Bellville - Millwood 138 kV line including terminal equipment upgrades		AEP (100%)
b2347	Replace the North Delphos 600A switch. Rebuild approximately 18.7 miles of 138 kV line North Delphos - S073. Reconductor the line and replace the existing tower structures		AEP (100%)
b2348	Construct a new 138 kV line from Richlands Station to intersect with the Hales Branch - Grassy Creek 138 kV circuit		AEP (100%)
b2374	Change the existing CT ratios of the existing equipment along Bearskin - Smith Mountain 138 kV circuit		AEP (100%)
b2375	Change the existing CT ratios of the existing equipment along East Danville-Banister 138 kV circuit		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2376	Replace the Turner 138 kV breaker 'D'		AEP (100%)
b2377	Replace the North Newark 138 kV breaker 'P'		AEP (100%)
b2378	Replace the Sporn 345 kV breaker 'DD'		AEP (100%)
b2379	Replace the Sporn 345 kV breaker 'DD2'		AEP (100%)
b2380	Replace the Muskingum 345 kV breaker 'SE'		AEP (100%)
b2381	Replace the East Lima 138 kV breaker 'E1'		AEP (100%)
b2382	Replace the Delco 138 kV breaker 'R'		AEP (100%)
b2383	Replace the Sporn 345 kV breaker 'AA2'		AEP (100%)
b2384	Replace the Sporn 345 kV breaker 'CC'		AEP (100%)
b2385	Replace the Sporn 345 kV breaker 'CC2'		AEP (100%)
b2386	Replace the Astor 138 kV breaker '102'		AEP (100%)
b2387	Replace the Muskingum 345 kV breaker 'SH'		AEP (100%)
b2388	Replace the Muskingum 345 kV breaker 'SI'		AEP (100%)
b2389	Replace the Hyatt 138 kV breaker '105N'		AEP (100%)
b2390	Replace the Muskingum 345 kV breaker 'SG'		AEP (100%)
b2391	Replace the Hyatt 138 kV breaker '101C'		AEP (100%)
b2392	Replace the Hyatt 138 kV breaker '104N'		AEP (100%)
b2393	Replace the Hyatt 138 kV breaker '104S'		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2394	Replace the Sporn 345 kV breaker 'CC1'		AEP (100%)
b2409	Install two 56.4 MVAR capacitor banks at the Melmore 138 kV station in Ohio		AEP (100%)
b2410	Convert Hogan Mullin 34.5 kV line to 138 kV, establish 138 kV line between Jones Creek and Strawton, rebuild existing Mullin Elwood 34.5 kV and terminate line into Strawton station, retire Mullin station		AEP (100%)
b2411	Rebuild the 3/0 ACSR portion of the Hadley - Kroemer Tap 69 kV line utilizing 795 ACSR conductor		AEP (100%)
b2423	Install a 300 MVAR shunt reactor at AEP's Wyoming 765 kV station		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)

			DFAX Allocation: AEP (100%)
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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2444	Willow - Eureka 138 kV line: Reconductor 0.26 mile of 4/0 CU with 336 ACSS		AEP (100%)
b2445	Complete a sag study of Tidd - Mahans Lake 138 kV line		AEP (100%)
b2449	Rebuild the 7-mile 345 kV line between Meadow Lake and Reynolds 345 kV stations		AEP (100%)
b2462	Add two 138 kV circuit breakers at Fremont station to fix tower contingency '408_2'		AEP (100%)
b2501	Construct a new 138/69 kV Yager station by tapping 2-138 kV FE circuits (Nottingham-Cloverdale, Nottingham-Harmon)		AEP (100%)
b2501.2	Build a new 138 kV line from new Yager station to Azalea station		AEP (100%)
b2501.3	Close the 138 kV loop back into Yager 138 kV by converting part of local 69 kV facilities to 138 kV		AEP (100%)
b2501.4	Build 2 new 69 kV exits to reinforce 69 kV facilities and upgrade conductor between Irish Run 69 kV Switch and Bowerstown 69 kV Switch		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2502.1	Construct new 138 kV switching station Nottingham tapping 6-138 kV FE circuits (Holloway-Brookside, Holloway-Harmon #1 and #2, Holloway-Reeds, Holloway-New Stacy, Holloway-Cloverdale). Exit a 138 kV circuit from new station to Freebyrd station		AEP (100%)
b2502.2	Convert Freebyrd 69 kV to 138 kV		AEP (100%)
b2502.3	Rebuild/convert Freebyrd-South Cadiz 69 kV circuit to 138 kV		AEP (100%)
b2502.4	Upgrade South Cadiz to 138 kV breaker and a half		AEP (100%)
b2530	Replace the Sporn 138 kV breaker 'G1' with 80 kA breaker		AEP (100%)
b2531	Replace the Sporn 138 kV breaker 'D' with 80 kA breaker		AEP (100%)
b2532	Replace the Sporn 138 kV breaker 'O1' with 80 kA breaker		AEP (100%)
b2533	Replace the Sporn 138 kV breaker 'P2' with 80 kA breaker		AEP (100%)
b2534	Replace the Sporn 138 kV breaker 'U' with 80 kA breaker		AEP (100%)
b2535	Replace the Sporn 138 kV breaker 'O' with 80 kA breaker		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2536	Replace the Sporn 138 kV breaker 'O2' with 80 kA breaker		AEP (100%)
b2537	Replace the Robinson Park 138 kV breakers A1, A2, B1, B2, C1, C2, D1, D2, E1, E2, and F1 with 63 kA breakers		AEP (100%)
b2555	Reconductor 0.5 miles Tiltonsville – Windsor 138 kV and string the vacant side of the 4.5 mile section using 556 ACSR in a six wire configuration		AEP (100%)
b2556	Install two 138 kV prop structures to increase the maximum operating temperature of the Clinch River- Clinch Field 138 kV line		AEP (100%)
b2581	Temporary operating procedure for delay of upgrade b1464. Open the Corner 138 kV circuit breaker 86 for an overload of the Corner – Washington MP 138 kV line. The tower contingency loss of Belmont – Trissler 138 kV and Belmont – Edgelawn 138 kV should be added to Operational contingency		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2591	Construct a new 69 kV line approximately 2.5 miles from Colfax to Drewry's. Construct a new Drewry's station and install a new circuit breaker at Colfax station.		AEP (100%)
b2592	Rebuild existing East Coshocton – North Coshocton double circuit line which contains Newcomerstown – N. Coshocton 34.5 kV Circuit and Coshocton – North Coshocton 69 kV circuit		AEP (100%)
b2593	Rebuild existing West Bellaire – Glencoe 69 kV line with 138 kV & 69 kV circuits and install 138/69 kV transformer at Glencoe Switch		AEP (100%)
b2594	Rebuild 1.0 mile of Brantley – Bridge Street 69 kV Line with 1033 ACSR overhead conductor		AEP (100%)
b2595.1	Rebuild 7.82 mile Elkhorn City – Haysi S.S 69 kV line utilizing 1033 ACSR built to 138 kV standards		AEP (100%)
b2595.2	Rebuild 5.18 mile Moss – Haysi SS 69 kV line utilizing 1033 ACSR built to 138 kV standards		AEP (100%)
b2596	Move load from the 34.5 kV bus to the 138 kV bus by installing a new 138/12 kV XF at New Carlisle station in Indiana		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2597	Rebuild approximately 1 mi. section of Dagoon-Virgil Street 34.5 kV line between Dagoon and Dodge Tap switch and replace Dodge switch MOAB to increase thermal capability of Dagoon-Dodge Tap branch		AEP (100%)
b2598	Rebuild approximately 1 mile section of the Kline-Virgil Street 34.5 kV line between Kline and Virgil Street tap. Replace MOAB switches at Beiger, risers at Kline, switches and bus at Virgil Street.		AEP (100%)
b2599	Rebuild approximately 0.1 miles of 69 kV line between Albion and Albion tap		AEP (100%)
b2600	Rebuild Fremont – Pound line as 138 kV		AEP (100%)
b2601	Fremont Station Improvements		AEP (100%)
b2601.1	Replace MOAB towards Beaver Creek with 138 kV breaker		AEP (100%)
b2601.2	Replace MOAB towards Clinch River with 138 kV breaker		AEP (100%)
b2601.3	Replace 138 kV Breaker A with new bus-tie breaker		AEP (100%)
b2601.4	Re-use Breaker A as high side protection on transformer #1		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2601.5	Install two (2) circuit switchers on high side of transformers # 2 and 3 at Fremont Station		AEP (100%)
b2602.1	Install 138 kV breaker E2 at North Proctorville		AEP (100%)
b2602.2	Construct 2.5 Miles of 138 kV 1033 ACSR from East Huntington to Darrah 138 kV substations		AEP (100%)
b2602.3	Install breaker on new line exit at Darrah towards East Huntington		AEP (100%)
b2602.4	Install 138 kV breaker on new line at East Huntington towards Darrah		AEP (100%)
b2602.5	Install 138 kV breaker at East Huntington towards North Proctorville		AEP (100%)
b2603	Boone Area Improvements		AEP (100%)
b2603.1	Purchase approximately a 200X300 station site near Slaughter Creek 46 kV station (Wilbur Station)		AEP (100%)
b2603.2	Install 3 138 kV circuit breakers, Cabin Creek to Hernshaw 138 kV circuit		AEP (100%)
b2603.3	Construct 1 mi. of double circuit 138 kV line on Wilbur – Boone 46 kV line with 1590 ACSS 54/19 conductor @ 482 Degree design temp. and 1-159 12/7 ACSR and one 86 Sq.MM. 0.646” OPGW Static wires		AEP (100%)
b2604	Bellefonte Transformer Addition		AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2604.1	Remove approximately 11.32 miles of the 69 kV line between Millbrook Park and Franklin Furnace		AEP (100%)
b2604.2	At Millbrook Park station, add a new 138/69 kV Transformer #2 (90 MVA) with 3000 A 40 kA breakers on the high and low side. Replace the 600 A MOAB switch and add a 3000 A circuit switcher on the high side of Transformer #1		AEP (100%)
b2604.3	Replace Sciotoville 69 kV station with a new 138/12 kV in-out station (Cottrell) with 2000 A line MOABs facing Millbrook Park and East Wheelersburg 138 kV station		AEP (100%)
b2604.4	Tie Cottrell switch into the Millbrook Park – East Wheelersburg 138 kV circuit by constructing 0.50 mile of line using 795 ACSR 26/7 Drake (SE 359 MVA)		AEP (100%)
b2604.5	Install a new 2000 A 3-way PoP switch outside of Texas Eastern 138 kV substation (Sadiq switch)		AEP (100%)
b2604.6	Replace the Wheelersburg 69 kV station with a new 138/12 kV in-out station (Sweetgum) with a 3000 A 40 kA breaker facing Sadiq switch and a 2000 A 138 kV MOAB facing Althea		AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2604.7	Build approximately 1.4 miles of new 138 kV line using 795 ACSR 26/7 Drake (SE 359 MVA) between the new Sadiq switch and the new Sweetgum 138 kV station		AEP (100%)
b2604.8	Remove the existing 69 kV Hayport Road switch		AEP (100%)
b2604.9	Rebuild approximately 2.3 miles along existing Right-Of-Way from Sweetgum to the Hayport Road switch 69 kV location as 138 kV single circuit and rebuild approximately 2.0 miles from the Hayport Road switch to Althea 69 kV with double circuit 138 kV construction, one side operated at 69 kV to continue service to K.O. Wheelersburg, using 795 ACSR 26/7 Drake (SE 359 MVA)		AEP (100%)
b2604.10	Build a new station (Althea) with a 138/69 kV, 90 MVA transformer. The 138 kV side will have a single 2000 A 40 kA circuit breaker and the 69 kV side will be a 2000 A 40 kA three breaker ring bus		AEP (100%)
b2604.11	Remote end work at Hanging Rock, East Wheelersburg and North Haverhill 138 kV		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2605	Rebuild and reconductor Kammer – George Washington 69 kV circuit and George Washington – Moundsville ckt #1, designed for 138 kV. Upgrade limiting equipment at remote ends and at tap stations	AEP (100%)
b2606	Convert Bane – Hammondsville from 23 kV to 69 kV operation	AEP (100%)
b2607	Pine Gap Relay Limit Increase	AEP (100%)
b2608	Richlands Relay Upgrade	AEP (100%)
b2609	Thorofare – Goff Run – Powell Mountain 138 kV Build	AEP (100%)
b2610	Rebuild Pax Branch – Scaraboro as 138 kV	AEP (100%)
b2611	Skin Fork Area Improvements	AEP (100%)
b2611.1	New 138/46 kV station near Skin Fork and other components	AEP (100%)
b2611.2	Construct 3.2 miles of 1033 ACSR double circuit from new Station to cut into Sundial-Baileysville 138 kV line	AEP (100%)
b2634.1	Replace metering BCT on Tanners Creek CB T2 with a slip over CT with higher thermal rating in order to remove 1193 MVA limit on facility (Miami Fort-Tanners Creek 345 kV line)	AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2643	Replace the Darrah 138 kV breaker 'L' with 40 kA rated breaker		AEP (100%)
b2645	Ohio Central 138 kV Loop		AEP (100%)
b2667	Replace the Muskingum 138 kV bus # 1 and 2		AEP (100%)
b2668	Reconductor Dequine to Meadow Lake 345 kV circuit #1 utilizing dual 954 ACSR 54/7 cardinal conductor		AEP (100%)
b2669	Install a second 345/138 kV transformer at Desoto		AEP (100%)
b2670	Replace switch at Elk Garden 138 kV substation (on the Elk Garden – Lebanon 138 kV circuit)		AEP (100%)
b2671	Replace/upgrade/add terminal equipment at Bradley, Mullensville, Pinnacle Creek, Itmann, and Tams Mountain 138 kV substations. Sag study on Mullens – Wyoming and Mullens – Tams Mt. 138 kV circuits		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2687.1	Install a +/- 450 MVAR SVC at Jacksons Ferry 765 kV substation	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: AEP (100%)</p>

*Neptune Regional Transmission System, LLC

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2687.2	Install a 300 MVAR shunt line reactor on the Broadford end of the Broadford – Jacksons Ferry 765 kV line		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b2697.1	Mitigate violations identified by sag study to operate Fieldale-Thornton-Franklin 138 kV overhead line conductor at its max. operating temperature. 6 potential line crossings to be addressed.		DFAX Allocation: AEP (100%)
b2697.2	Replace terminal equipment at AEP's Danville and East Danville substations to improve thermal capacity of Danville – East Danville 138 kV circuit		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2698	Replace relays at AEP's Cloverdale and Jackson's Ferry substations to improve the thermal capacity of Cloverdale – Jackson's Ferry 765 kV line		AEP (100%)
b2701.1	Construct Herlan station as breaker and a half configuration with 9-138 kV CB's on 4 strings and with 2-28.8 MVAR capacitor banks		AEP (100%)
b2701.2	Construct new 138 kV line from Herlan station to Blue Racer station. Estimated approx. 3.2 miles of 1234 ACSS/TW Yukon and OPGW		AEP (100%)
b2701.3	Install 1-138 kV CB at Blue Racer to terminate new Herlan circuit		AEP (100%)
b2714	Rebuild/upgrade line between Glencoe and Willow Grove Switch 69 kV		AEP (100%)
b2715	Build approximately 11.5 miles of 34.5 kV line with 556.5 ACSR 26/7 Dove conductor on wood poles from Flushing station to Smyrna station		AEP (100%)
b2727	Replace the South Canton 138 kV breakers 'K', 'J', 'J1', and 'J2' with 80 kA breakers		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2731	Convert the Sunnyside – East Sparta – Malvern 23 kV sub-transmission network to 69 kV. The lines are already built to 69 kV standards		AEP (100%)
b2733	Replace South Canton 138 kV breakers ‘L’ and ‘L2’ with 80 kA rated breakers		AEP (100%)
b2750.1	Retire Betsy Layne 138/69/43 kV station and replace it with the greenfield Stanville station about a half mile north of the existing Betsy Layne station		AEP (100%)
b2750.2	Relocate the Betsy Layne capacitor bank to the Stanville 69 kV bus and increase the size to 14.4 MVAR		AEP (100%)
b2753.1	Replace existing George Washington station 138 kV yard with GIS 138 kV breaker and a half yard in existing station footprint. Install 138 kV revenue metering for new IPP connection		AEP (100%)
b2753.2	Replace Dilles Bottom 69/4 kV Distribution station as breaker and a half 138 kV yard design including AEP Distribution facilities but initial configuration will constitute a 3 breaker ring bus		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2753.3	Connect two 138 kV 6-wired circuits from “Point A” (currently de-energized and owned by FirstEnergy) in circuit positions previously designated Burger #1 & Burger #2 138 kV. Install interconnection settlement metering on both circuits exiting Holloway		AEP (100%)
b2753.6	Build double circuit 138 kV line from Dilles Bottom to “Point A”. Tie each new AEP circuit in with a 6-wired line at Point A. This will create a Dilles Bottom – Holloway 138 kV circuit and a George Washington – Holloway 138 kV circuit		AEP (100%)
b2753.7	Retire line sections (Dilles Bottom – Bellaire and Moundsville – Dilles Bottom 69 kV lines) south of FirstEnergy 138 kV line corridor, near “Point A”. Tie George Washington – Moundsville 69 kV circuit to George Washington – West Bellaire 69 kV circuit		AEP (100%)
b2753.8	Rebuild existing 69 kV line as double circuit from George Washington – Dilles Bottom 138 kV. One circuit will cut into Dilles Bottom 138 kV initially and the other will go past with future plans to cut in		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2760	Perform a Sag Study of the Saltville – Tazewell 138 kV line to increase the thermal rating of the line	AEP (100%)
b2761.1	Replace the Hazard 161/138 kV transformer	AEP (100%)
b2761.2	Perform a Sag Study of the Hazard – Wooten 161 kV line to increase the thermal rating of the line	AEP (100%)
b2761.3	Rebuild the Hazard – Wooten 161 kV line utilizing 795 26/7 ACSR conductor (300 MVA rating)	AEP (100%)
b2762	Perform a Sag Study of Nagel – West Kingsport 138 kV line to increase the thermal rating of the line	AEP (100%)
b2776	Reconductor the entire Dequine – Meadow Lake 345 kV circuit #2	AEP (100%)
b2777	Reconductor the entire Dequine – Eugene 345 kV circuit #1	EKPC (100%)
b2779.1	Construct a new 138 kV station, Campbell Road, tapping into the Grabill – South Hicksville 138 kV line	AEP (100%)
b2779.2	Reconstruct sections of the Butler-N.Hicksville and Auburn-Butler 69 kV circuits as 138 kV double circuit and extend 138 kV from Campbell Road station	AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2779.3	Construct a new 345/138 kV SDI Wilmington Station which will be sourced from Collingwood 345 kV and serve the SDI load at 345 kV and 138 kV, respectively		AEP (100%)
b2779.4	Loop 138 kV circuits in-out of the new SDI Wilmington 138 kV station resulting in a direct circuit to Auburn 138 kV and an indirect circuit to Auburn and Rob Park via Dunton Lake, and a circuit to Campbell Road; Reconductor 138 kV line section between Dunton Lake – SDI Wilmington		AEP (100%)
b2779.5	Expand Auburn 138 kV bus		AEP (100%)
b2779.6	Construct a 345 kV ring bus at Dunton Lake to serve Steel Dynamics, Inc. (SDI) load at 345 kV via two (2) circuits		AEP (100%)
b2779.7	Retire Collingwood 345 kV station		AEP (100%)
b2787	Reconductor 0.53 miles (14 spans) of the Kaiser Jct. - Air Force Jct. Sw section of the Kaiser - Heath 69 kV circuit/line with 336 ACSR to match the rest of the circuit (73 MVA rating, 78% loading)		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2788	Install a new 3-way 69 kV line switch to provide service to AEP's Barnesville distribution station. Remove a portion of the #1 copper T-Line from the 69 kV through-path		AEP (100%)
b2789	Rebuild the Brues - Glendale Heights 69 kV line section (5 miles) with 795 ACSR (128 MVA rating, 43% loading)		AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2790	Install a 3 MVAR, 34.5 kV cap bank at Caldwell substation		AEP (100%)
b2791	Rebuild Tiffin – Howard, new transformer at Chatfield		AEP (100%)
b2791.1	Rebuild portions of the East Tiffin - Howard 69 kV line from East Tiffin to West Rockaway Switch (0.8 miles) using 795 ACSR Drake conductor (129 MVA rating, 50% loading)		AEP (100%)
b2791.2	Rebuild Tiffin - Howard 69 kV line from St. Stephen's Switch to Hinesville (14.7 miles) using 795 ACSR Drake conductor (90 MVA rating, non-conductor limited, 38% loading)		AEP (100%)
b2791.3	New 138/69 kV transformer with 138/69 kV protection at Chatfield		AEP (100%)
b2791.4	New 138/69 kV protection at existing Chatfield transformer		AEP (100%)
b2792	Replace the Elliott transformer with a 130 MVA unit, reconductor 0.42 miles of the Elliott – Ohio University 69 kV line with 556 ACSR to match the rest of the line conductor (102 MVA rating, 73% loading) and rebuild 4 miles of the Clark Street – Strouds R		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2793	Energize the spare Fremont Center 138/69 kV 130 MVA transformer #3. Reduces overloaded facilities to 46% loading	AEP (100%)
b2794	Construct new 138/69/34 kV station and 1-34 kV circuit (designed for 69 kV) from new station to Decliff station, approximately 4 miles, with 556 ACSR conductor (51 MVA rating)	AEP (100%)
b2795	Install a 34.5 kV 4.8 MVAR capacitor bank at Killbuck 34.5 kV station	AEP (100%)
b2796	Rebuild the Malvern - Oneida Switch 69 kV line section with 795 ACSR (1.8 miles, 125 MVA rating, 55% loading)	AEP (100%)
b2797	Rebuild the Ohio Central - Conesville 69 kV line section (11.8 miles) with 795 ACSR conductor (128 MVA rating, 57% loading). Replace the 50 MVA Ohio Central 138/69 kV XFMR with a 90 MVA unit	AEP (100%)
b2798	Install a 14.4 MVAR capacitor bank at West Hicksville station. Replace ground switch/MOAB at West Hicksville with a circuit switcher	AEP (100%)
b2799	Rebuild Valley - Almena, Almena - Hartford, Riverside - South Haven 69 kV lines. New line exit at Valley Station. New transformers at Almena and Hartford	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2799.1 Rebuild 12 miles of Valley – Almena 69 kV line as a double circuit 138/69 kV line using 795 ACSR conductor (360 MVA rating) to introduce a new 138 kV source into the 69 kV load pocket around Almena station		AEP (100%)
b2799.2 Rebuild 3.2 miles of Almena to Hartford 69 kV line using 795 ACSR conductor (90 MVA rating)		AEP (100%)
b2799.3 Rebuild 3.8 miles of Riverside – South Haven 69 kV line using 795 ACSR conductor (90 MVA rating)		AEP (100%)
b2799.4 At Valley station, add new 138 kV line exit with a 3000 A 40 kA breaker for the new 138 kV line to Almena and replace CB D with a 3000 A 40 kA breaker		AEP (100%)
b2799.5 At Almena station, install a 90 MVA 138/69 kV transformer with low side 3000 A 40 kA breaker and establish a new 138 kV line exit towards Valley		AEP (100%)
b2799.6 At Hartford station, install a second 90 MVA 138/69 kV transformer with a circuit switcher and 3000 A 40 kA low side breaker		AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2817	Replace Delaware 138 kV breaker 'P' with a 40 kA breaker		AEP (100%)
b2818	Replace West Huntington 138 kV breaker 'F' with a 40 kA breaker		AEP (100%)
b2819	Replace Madison 138 kV breaker 'V' with a 63 kA breaker		AEP (100%)
b2820	Replace Sterling 138 kV breaker 'G' with a 40 kA breaker		AEP (100%)
b2821	Replace Morse 138 kV breakers '103', '104', '105', and '106' with 63 kA breakers		AEP (100%)
b2822	Replace Clinton 138 kV breakers '105' and '107' with 63 kA breakers		AEP (100%)
b2826.1	Install 300 MVAR reactor at Ohio Central 345 kV substation		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2826.2	Install 300 MVAR reactor at West Bellaire 345 kV substation		AEP (100%)
b2831.1	Upgrade the Tanner Creek – Miami Fort 345 kV circuit (AEP portion)		DFAX Allocation: Dayton (61.71 <u>99.99</u> %) / DEOK <u>EKPC</u> (<u>37.68</u> <u>0.01</u> %) / OVEC (<u>0.61</u> %)
b2832	Six wire the Kyger Creek – Sporn 345 kV circuits #1 and #2 and convert them to one circuit		AEP (100%)
b2833	Reconductor the Maddox Creek – East Lima 345 kV circuit with 2-954 ACSS Cardinal conductor		DFAX Allocation: AEP (80.83 <u>79.96</u> %) / Dayton (<u>18.73</u> <u>20.04</u> %) / OVEC (<u>0.44</u> %)
b2834	Reconductor and string open position and sixwire 6.2 miles of the Chemical – Capitol Hill 138 kV circuit		AEP (100%)
b2872	Replace the South Canton 138 kV breaker ‘K2’ with a 80 kA breaker		AEP (100%)
b2873	Replace the South Canton 138 kV breaker “M” with a 80 kA breaker		AEP (100%)
b2874	Replace the South Canton 138 kV breaker “M2” with a 80 kA breaker		AEP (100%)
b2878	Upgrade the Clifty Creek 345 kV risers		AEP (100%)
b2880	Rebuild approximately 4.77 miles of the Cannonsburg – South Neal 69 kV line section utilizing 795 ACSR conductor (90 MVA rating)		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2881	Rebuild ~1.7 miles of the Dunn Hollow – London 46 kV line section utilizing 795 26/7 ACSR conductor (58 MVA rating, non-conductor limited)	AEP (100%)
b2882	Rebuild Reusens - Peakland Switch 69 kV line. Replace Peakland Switch	AEP (100%)
b2882.1	Rebuild the Reusens - Peakland Switch 69 kV line (approximately 0.8 miles) utilizing 795 ACSR conductor (86 MVA rating, non-conductor limited)	AEP (100%)
b2882.2	Replace existing Peakland S.S with new 3 way switch phase over phase structure	AEP (100%)
b2883	Rebuild the Craneco – Pardee – Three Forks – Skin Fork 46 kV line section (approximately 7.2 miles) utilizing 795 26/7 ACSR conductor (108 MVA rating)	AEP (100%)
b2884	Install a second transformer at Nagel station, comprised of 3 single phase 250 MVA 500/138 kV transformers. Presently, TVA operates their end of the Boone Dam – Holston 138 kV interconnection as normally open preemptively for the loss of the existing Nagel	AEP (100%)
b2885	New delivery point for City of Jackson	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2885.1	Install a new Ironman Switch to serve a new delivery point requested by the City of Jackson for a load increase request	AEP (100%)
b2885.2	Install a new 138/69 kV station (Rhodes) to serve as a third source to the area to help relieve overloads caused by the customer load increase	AEP (100%)
b2885.3	Replace Coalton Switch with a new three breaker ring bus (Heppner)	AEP (100%)
b2886	Install 90 MVA 138/69 kV transformer, new transformer high and low side 3000 A 40 kA CBs, and a 138 kV 40 kA bus tie breaker at West End Fostoria	AEP (100%)
b2887	Add 2-138 kV CB's and relocate 2-138 kV circuit exits to different bays at Morse Road. Eliminate 3 terminal line by terminating Genoa - Morse circuit at Morse Road	AEP (100%)
b2888	Retire Poston substation. Install new Lemaster substation	AEP (100%)
b2888.1	Remove and retire the Poston 138 kV station	AEP (100%)
b2888.2	Install a new greenfield station, Lemaster 138 kV Station, in the clear	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2888.3	Relocate the Trimble 69 kV AEP Ohio radial delivery point to 138 kV, to be served off of the Poston – Strouds Run – Crooksville 138 kV circuit via a new three-way switch. Retire the Poston - Trimble 69 kV line	AEP (100%)
b2889	Expand Cliffview station	AEP (100%)
b2889.1	Cliffview Station: Establish 138 kV bus. Install two 138/69 kV XFRs (130 MVA), six 138 kV CBs (40 kA 3000 A) and four 69 kV CBs (40 kA 3000 A)	AEP (100%)
b2889.2	Byllesby – Wythe 69 kV: Retire all 13.77 miles (1/0 CU) of this circuit (~4 miles currently in national forest)	AEP (100%)
b2889.3	Galax – Wythe 69 kV: Retire 13.53 miles (1/0 CU section) of line from Lee Highway down to Byllesby. This section is currently double circuited with Byllesby – Wythe 69 kV. Terminate the southern 3/0 ACSR section into the newly opened position at Byllesby	AEP (100%)
b2889.4	Cliffview Line: Tap the existing Pipers Gap – Jubal Early 138 kV line section. Construct double circuit in/out (~2 miles) to newly established 138 kV bus, utilizing 795 26/7 ACSR conductor	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2890.1	Rebuild 23.55 miles of the East Cambridge – Smyrna 34.5 kV circuit with 795 ACSR conductor (128 MVA rating) and convert to 69 kV	AEP (100%)
b2890.2	East Cambridge: Install a 2000 A 69 kV 40 kA circuit breaker for the East Cambridge – Smyrna 69 kV circuit	AEP (100%)
b2890.3	Old Washington: Install 69 kV 2000 A two way phase over phase switch	AEP (100%)
b2890.4	Install 69 kV 2000 A two way phase over phase switch	AEP (100%)
b2891	Rebuild the Midland Switch to East Findlay 34.5 kV line (3.31 miles) with 795 ACSR (63 MVA rating) to match other conductor in the area	AEP (100%)
b2892	Install new 138/12 kV transformer with high side circuit switcher at Leon and a new 138 kV line exit towards Ripley. Establish 138 kV at the Ripley station with a new 138/69 kV 130 MVA transformer and move the distribution load to 138 kV service	AEP (100%)
b2936.1	Rebuild approximately 6.7 miles of 69 kV line between Mottville and Pigeon River using 795 ACSR conductor (129 MVA rating). New construction will be designed to 138 kV standards but operated at 69 kV	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2936.2	Pigeon River Station: Replace existing MOAB Sw. 'W' with a new 69 kV 3000 A 40 kA breaker, and upgrade existing relays towards HMD station. Replace CB H with a 3000 A 40 kA breaker	AEP (100%)
b2937	Replace the existing 636 ACSR 138 kV bus at Fletchers Ridge with a larger 954 ACSR conductor	AEP (100%)
b2938	Perform a sag mitigations on the Broadford – Wolf Hills 138 kV circuit to allow the line to operate to a higher maximum temperature	AEP (100%)
b2958.1	Cut George Washington – Tidd 138 kV circuit into Sand Hill and reconfigure Brues & Warton Hill line entrances	AEP (100%)
b2958.2	Add 2 138 kV 3000 A 40 kA breakers, disconnect switches, and update relaying at Sand Hill station	AEP (100%)
b2968	Upgrade existing 345 kV terminal equipment at Tanner Creek station	AEP (100%)
b2969	Replace terminal equipment on Maddox Creek - East Lima 345 kV circuit	AEP (100%)
b2976	Upgrade terminal equipment at Tanners Creek 345 kV station. Upgrade 345 kV bus and risers at Tanners Creek for the Dearborn circuit	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2988	Replace the Twin Branch 345 kV breaker “JM” with 63 kA breaker and associated substation works including switches, bus leads, control cable and new DICM		AEP (100%)
b2993	Rebuild the Torrey – South Gambrinus Switch – Gambrinus Road 69 kV line section (1.3 miles) with 1033 ACSR ‘Curlew’ conductor and steel poles		AEP (100%)
b3000	Replace South Canton 138 kV breaker ‘N’ with an 80 kA breaker		AEP (100%)
b3001	Replace South Canton 138 kV breaker ‘N1’ with an 80 kA breaker		AEP (100%)
b3002	Replace South Canton 138 kV breaker ‘N2’ with an 80 kA breaker		AEP (100%)
b3036	Rebuild 15.6 miles of Haviland - North Delphos 138 kV line		AEP (100%)
b3037	Upgrades at the Natrium substation		AEP (100%)
b3038	Reconductor the Capitol Hill – Coco 138 kV line section		AEP (100%)
b3039	Line swaps at Muskingum 138 kV station		AEP (100%)
b3040.1	Rebuild Ravenswood – Racine tap 69 kV line section (~15 miles) to 69 kV standards, utilizing 795 26/7 ACSR conductor		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3040.2	Rebuild existing Ripley – Ravenswood 69 kV circuit (~9 miles) to 69 kV standards, utilizing 795 26/7 ACSR conductor	AEP (100%)
b3040.3	Install new 3-way phase over phase switch at Sarah Lane station to replace the retired switch at Cottageville	AEP (100%)
b3040.4	Install new 138/12 kV 20 MVA transformer at Polymer station to transfer load from Mill Run station to help address overload on the 69 kV network	AEP (100%)
b3040.5	Retire Mill Run station	AEP (100%)
b3040.6	Install 28.8 MVAR cap bank at South Buffalo station	AEP (100%)
b3051.2	Adjust CT tap ratio at Ronceverte 138 kV	AEP (100%)
b3085	Reconductor Kammer – George Washington 138 kV line (approx. 0.08 mile). Replace the wave trap at Kammer 138 kV	AEP (100%)
b3086.1	Rebuild New Liberty – Findlay 34 kV line Str's 1–37 (1.5 miles), utilizing 795 26/7 ACSR conductor	AEP (100%)
b3086.2	Rebuild New Liberty – North Baltimore 34 kV line Str's 1-11 (0.5 mile), utilizing 795 26/7 ACSR conductor	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3086.3	Rebuild West Melrose – Whirlpool 34 kV line Str’s 55–80 (1 mile), utilizing 795 26/7 ACSR conductor	AEP (100%)
b3086.4	North Findlay station: Install a 138 kV 3000A 63 kA line breaker and low side 34.5 kV 2000A 40kA breaker, high side 138 kV circuit switcher on T1	AEP (100%)
b3086.5	Ebersole station: Install second 90 MVA 138/69/34 kV transformer. Install two low side (69 kV) 2000A 40 kA breakers for T1 and T2	AEP (100%)
b3087.1	Construct a new greenfield station to the west (approx. 1.5 miles) of the existing Fords Branch Station in the new Kentucky Enterprise Industrial Park. This station will consist of six 3000A 40 kA 138 kV breakers laid out in a ring arrangement, two 30 MVA 138/34.5 kV transformers, and two 30 MVA 138/12 kV transformers. The existing Fords Branch Station will be retired	AEP (100%)
b3087.2	Construct approximately 5 miles of new double circuit 138 kV line in order to loop the new Kewanee station into the existing Beaver Creek – Cedar Creek 138 kV circuit	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3087.3	Remote end work will be required at Cedar Creek Station	AEP (100%)
b3087.4	Install 28.8 MVAR switching shunt at the new Fords Branch substation	AEP (100%)
b3095	Rebuild Lakin – Racine Tap 69 kV line section (9.2 miles) to 69 kV standards, utilizing 795 26/7 ACSR conductor	AEP (100%)
b3099	Install a 138 kV 3000A 40 kA circuit switcher on the high side of the existing 138/34.5 kV transformer No.5 at Holston station	AEP (100%)
b3100	Replace the 138 kV MOAB switcher “YY” with a new 138 kV circuit switcher on the high side of Chemical transformer No.6	AEP (100%)
b3101	Rebuild the 1/0 Cu. conductor sections (approx. 1.5 miles) of the Fort Robinson – Moccasin Gap 69 kV line section (approx. 5 miles) utilizing 556 ACSR conductor and upgrade existing relay trip limit (WN/WE: 63 MVA, line limited by remaining conductor sections)	AEP (100%)
b3102	Replace existing 50 MVA 138/69 kV transformers #1 and #2 (both 1957 vintage) at Fremont station with new 130 MVA 138/69 kV transformers	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3103.1	Install a 138/69 kV transformer at Royerton station. Install a 69 kV bus with one 69 kV breaker toward Bosman station. Rebuild the 138 kV portion into a ring bus configuration built for future breaker and a half with four 138 kV breakers	AEP (100%)
b3103.2	Rebuild the Bosman/Strawboard station in the clear across the road to move it out of the flood plain and bring it up to 69 kV standards	AEP (100%)
b3103.3	Retire 138 kV breaker L at Delaware station and re-purpose 138 kV breaker M for the Jay line	AEP (100%)
b3103.4	Retire all 34.5 kV equipment at Hartford City station. Re-purpose breaker M for the Bosman line 69 kV exit	AEP (100%)
b3103.5	Rebuild the 138 kV portion of Jay station as a 6 breaker, breaker and a half station re-using the existing breakers “A”, “B”, and “G.” Rebuild the 69 kV portion of this station as a 6 breaker ring bus re-using the 2 existing 69 kV breakers. Install a new 138/69 kV transformer	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3103.6	Rebuild the 69 kV Hartford City – Armstrong Cork line but instead of terminating it into Armstrong Cork, terminate it into Jay station	AEP (100%)
b3103.7	Build a new 69 kV line from Armstrong Cork – Jay station	AEP (100%)
b3103.8	Rebuild the 34.5 kV Delaware – Bosman line as the 69 kV Royerton – Strawboard line. Retire the line section from Royerton to Delaware stations	AEP (100%)
b3104	Perform a sag study on the Polaris – Westerville 138 kV line (approx. 3.6 miles) to increase the summer emergency rating to 310 MVA	AEP (100%)
b3105	Rebuild the Delaware – Hyatt 138 kV line (approx. 4.3 miles) along with replacing conductors at both Hyatt and Delaware substations	AEP (100%)
b3106	Perform a sag study (6.8 miles of line) to increase the SE rating to 310 MVA. Note that results from the sag study could cover a wide range of outcomes, from no work required to a complete rebuild	AEP (100%)
b3109	Rebuild 5.2 miles Bethel – Sawmill 138 kV line including ADSS	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3112	Construct a single circuit 138 kV line (approx. 3.5 miles) from Amlin to Dublin using 1033 ACSR Curlew (296 MVA SN), convert Dublin station into a ring configuration, and re-terminating the Britton UG cable to Dublin station	AEP (100%)
b3116	Replace existing Mullens 138/46 kV 30 MVA transformer No.4 and associated protective equipment with a new 138/46 kV 90 MVA transformer and associated protective equipment	AEP (100%)
b3118.1	Expand existing Chadwick station and install a second 138/69 kV transformer at a new 138 kV bus tied into the Bellefonte – Grangston 138 kV circuit. The 69 kV bus will be reconfigured into a ring bus arrangement to tie the new transformer into the existing 69 kV via installation of four 3000A 63 kA 69 kV circuit breakers	AEP (100%)
b3118.2	Perform 138 kV remote end work at Grangston station	AEP (100%)
b3118.3	Perform 138 kV remote end work at Bellefonte station	AEP (100%)
b3118.4	Relocate the Chadwick – Leach 69 kV circuit within Chadwick station	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3118.5	Terminate the Bellefonte – Grangston 138 kV circuit to the Chadwick 138 kV bus		AEP (100%)
b3118.6	Chadwick – Tri-State #2 138 kV circuit will be reconfigured within the station to terminate into the newly established 138 kV bus #2 at Chadwick due to constructability aspects		AEP (100%)
b3118.7	Reconductor Chadwick – Leach and Chadwick – England Hill 69 kV lines with 795 ACSS conductor. Perform a LiDAR survey and a sag study to confirm that the reconducted circuits would maintain acceptable clearances		AEP (100%)
b3118.8	Replace the 20 kA 69 kV circuit breaker ‘F’ at South Neal station with a new 3000A 40 kA 69 kV circuit breaker. Replace line risers towards Leach station		AEP (100%)
b3118.9	Rebuild 336 ACSR portion of Leach – Miller S.S 69 kV line section (approx. 0.3 mile) with 795 ACSS conductor		AEP (100%)
b3118.10	Replace 69 kV line risers (towards Chadwick) at Leach station		AEP (100%)
b3119.1	Rebuild the Jay – Pennville 138 kV line as double circuit 138/69 kV. Build a new 9.8 mile single circuit 69 kV line from near Pennville station to North Portland station		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3119.2	Install three (3) 69 kV breakers to create the “U” string and add a low side breaker on the Jay transformer 2	AEP (100%)
b3119.3	Install two (2) 69 kV breakers at North Portland station to complete the ring and allow for the new line	AEP (100%)
b3129	At Conesville 138 kV station: Remove line leads to generating units, transfer plant AC service to existing station service feeds in Conesville 345/138 kV yard, and separate and reconfigure protection schemes	AEP (100%)
b3131	At East Lima and Haviland 138 kV stations, replace line relays and wavetraps on the East Lima – Haviland 138 kV facility	AEP (100%)
b3131.1	Rebuild approximately 12.3 miles of remaining Lark conductor on the double circuit line between Haviland and East Lima with 1033 54/7 ACSR conductor	AEP (100%)
b3132	Rebuild 3.11 miles of the LaPorte Junction – New Buffalo 69 kV line with 795 ACSR	AEP (100%)
b3139	Rebuild the Garden Creek – Whetstone 69 kV line (approx. 4 miles)	AEP (100%)
b3140	Rebuild the Whetstone – Knox Creek 69 kV line (approx. 3.1 miles)	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3141	Rebuild the Knox Creek – Coal Creek 69 kV line (approx. 2.9 miles)	AEP (100%)
b3148.1	Rebuild the 46 kV Bradley – Scarbro line to 96 kV standards using 795 ACSR to achieve a minimum rate of 120 MVA. Rebuild the new line adjacent to the existing one leaving the old line in service until the work is completed	AEP (100%)
b3148.2	Bradley remote end station work, replace 46 kV bus, install new 12 MVAR capacitor bank	AEP (100%)
b3148.3	Replace the existing switch at Sun substation with a 2-way SCADA-controlled motor-operated air-breaker switch	AEP (100%)
b3148.4	Remote end work and associated equipment at Scarbro station	AEP (100%)
b3148.5	Retire Mt. Hope station and transfer load to existing Sun station	AEP (100%)
b3149	Rebuild the 2.3 mile Decatur – South Decatur 69 kV line using 556 ACSR	AEP (100%)
b3150	Rebuild Ferguson 69/12 kV station in the clear as the 138/12 kV Bear station and connect it to an approx. 1 mile double circuit 138 kV extension from the Aviation – Ellison Road 138 kV line to remove the load from the 69 kV line	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3151.1	Rebuild the 30 mile Gateway – Wallen 34.5 kV circuit as the 27 mile Gateway – Wallen 69 kV line	AEP (100%)
b3151.2	Retire approx. 3 miles of the Columbia – Whitley 34.5 kV line	AEP (100%)
b3151.3	At Gateway station, remove all 34.5 kV equipment and install one (1) 69 kV circuit breaker for the new Whitley line entrance	AEP (100%)
b3151.4	Rebuild Whitley as a 69 kV station with two (2) lines and one (1) bus tie circuit breaker	AEP (100%)
b3151.5	Replace the Union 34.5 kV switch with a 69 kV switch structure	AEP (100%)
b3151.6	Replace the Eel River 34.5 kV switch with a 69 kV switch structure	AEP (100%)
b3151.7	Install a 69 kV Bobay switch at Woodland station	AEP (100%)
b3151.8	Replace the Carroll and Churubusco 34.5 kV stations with the 69 kV Snapper station. Snapper station will have two (2) line circuit breakers, one (1) bus tie circuit breaker and a 14.4 MVAR cap bank	AEP (100%)
b3151.9	Remove 34.5 kV circuit breaker “AD” at Wallen station	AEP (100%)
b3151.10	Rebuild the 2.5 miles of the Columbia – Gateway 69 kV line	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3151.11	Rebuild Columbia station in the clear as a 138/69 kV station with two (2) 138/69 kV transformers and 4-breaker ring buses on the high and low side. Station will reuse 69 kV breakers “J” & “K” and 138 kV breaker “D”	AEP (100%)
b3151.12	Rebuild the 13 miles of the Columbia – Richland 69 kV line	AEP (100%)
b3151.13	Rebuild the 0.5 mile Whitley – Columbia City No.1 line as 69 kV	AEP (100%)
b3151.14	Rebuild the 0.5 mile Whitley – Columbia City No.2 line as 69 kV	AEP (100%)
b3151.15	Rebuild the 0.6 mile double circuit section of the Rob Park – South Hicksville / Rob Park – Diebold Road as 69 kV	AEP (100%)
b3160.1	Construct an approx. 2.4 miles double circuit 138 kV extension using 1033 ACSR (Aluminum Conductor Steel Reinforced) to connect Lake Head to the 138 kV network	AEP (100%)
b3160.2	Retire the approx.2.5 miles 34.5 kV Niles – Simplicity Tap line	AEP (100%)
b3160.3	Retire the approx.4.6 miles Lakehead 69 kV Tap	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3160.4	Build new 138/69 kV drop down station to feed Lakehead with a 138 kV breaker, 138 kV switcher, 138/69 kV transformer and a 138 kV Motor-Operated Air Break	AEP (100%)
b3160.5	Rebuild the approx. 1.2 miles Buchanan South 69 kV Radial Tap using 795 ACSR (Aluminum Conductor Steel Reinforced)	AEP (100%)
b3160.6	Rebuild the approx. 8.4 miles 69 kV Pletcher – Buchanan Hydro line as the approx. 9 miles Pletcher – Buchanan South 69 kV line using 795 ACSR (Aluminum Conductor Steel Reinforced)	AEP (100%)
b3160.7	Install a PoP (Point-of-Presence) switch at Buchanan South station with 2 line MOABs (Motor-Operated Air Break)	AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3208 Retire approximately 38 miles of the 44 mile Clifford – Scottsville 46 kV circuit. Build new 138 kV “in and out” to two new distribution stations to serve the load formerly served by Phoenix, Shipman, Schuyler (AEP), and Rockfish stations. Construct new 138 kV lines from Joshua Falls – Riverville (approx. 10 miles) and Riverville – Gladstone (approx. 5 miles). Install required station upgrades at Joshua Falls, Riverville and Gladstone stations to accommodate the new 138 kV circuits. Rebuild Reusen – Monroe 69 kV (approx. 4 miles)		AEP (100%)
b3209 Rebuild the 10.5 mile Berne – South Decatur 69 kV line using 556 ACSR		AEP (100%)
b3210 Replace approx. 0.7 mile Beatty – Galloway 69 kV line with 4000 kcmil XLPE cable		AEP (100%)
b3220 Install 14.4 MVAR capacitor bank at Whitewood 138 kV		AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3243	Replace risers at the Bass 34.5 kV station		AEP (100%)
b3244	Rebuild approximately 9 miles of the Robinson Park – Harlan 69 kV line		AEP (100%)
b3248	Install a low side 69 kV circuit breaker at the Albion 138/69 kV transformer #1		AEP (100%)
b3249	Rebuild the Chatfield – Melmore 138 kV line (approximately 10 miles) to 1033 ACSR conductor		AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3253	Install a 3000A 40 kA 138 kV breaker on the high side of 138/69 kV transformer #5 at the Millbrook Park station. The transformer and associated bus protection will be upgraded accordingly	AEP (100%)
b3255	Upgrade 795 AAC risers at the Sand Hill 138 kV station towards Cricket Switch with 1272 AAC	AEP (100%)
b3256	Upgrade 500 MCM Cu risers at Tidd 138 kV station towards Wheeling Steel; replace with 1272 AAC conductor	AEP (100%)
b3257	Replace two spans of 336.4 26/7 ACSR on the Twin Branch – AM General #2 34.5 kV circuit	AEP (100%)
b3258	Install a 3000A 63 kA 138 kV breaker on the high side of 138/69 kV transformer #2 at Wagenhals station. The transformer and associated bus protection will be upgraded accordingly	AEP (100%)
b3259	At West Millersburg station, replace the 138 kV MOAB on the West Millersburg – Wooster 138 kV line with a 3000A 40 kA breaker	AEP (100%)
b3261	Upgrade circuit breaker “R1” at Tanners Creek 345 kV. Install Transient Recovery Voltage capacitor to increase the rating from 50 kA to 63 kA	AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3269	At West New Philadelphia station, add a high side 138 kV breaker on the 138/69 kV Transformer #2 along with a 138 kV breaker on the line towards Newcomerstown	AEP (100%)
b3270	Install 1.7 miles of 795 ACSR 138 kV conductor along the other side of Dragoon Tap 138 kV line, which is currently double circuit tower with one position open. Additionally, install a second 138/34.5 kV transformer at Dragoon, install a high side circuit switcher on the current transformer at the Dragoon Station, and install two (2) 138 kV line breakers on the Dragoon – Jackson 138 kV and Dragoon – Twin Branch 138 kV lines	AEP (100%)
b3270.1	Replace Dragoon 34.5 kV breakers “B”, “C”, and “D” with 40 kA breakers	AEP (100%)
b3271	Install a 138 kV circuit breaker at Fremont station on the line towards Fremont Center and install a 9.6 MVAR 69 kV capacitor bank at Bloom Road station	AEP (100%)
b3272	Install two 138 kV circuit switchers on the high side of 138/34.5 kV Transformers #1 and #2 at Rockhill station	AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3273.1	Rebuild and convert the existing 17.6 miles East Leipsic – New Liberty 34.5 kV circuit to 138 kV using 795 ACSR	AEP (100%)
b3273.2	Convert the existing 34.5 kV equipment to 138 kV and expand the existing McComb station to the north and east to allow for new equipment to be installed. Install two (2) new 138 kV box bays to allow for line positions and two (2) new 138/12 kV transformers	AEP (100%)
b3273.3	Expand the existing East Leipsic 138 kV station to the north to allow for another 138 kV line exit to be installed. The new line exit will involve installing a new 138 kV circuit breaker, disconnect switches and the addition of a new dead end structure along with the extension of the existing 138 kV bus work	AEP (100%)
b3273.4	Add one (1) 138 kV circuit breaker and disconnect switches in order to add an additional line position at New Liberty 138 kV station. Install line relaying potential devices and retire the 34.5 kV breaker 'F'	AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3274	Rebuild approximately 8.9 miles of 69 kV line between Newcomerstown and Salt Fork Switch with 556 ACSR conductor	AEP (100%)
b3275.1	Rebuild the Kammer Station – Cresaps Switch 69 kV line, approximately 0.5 mile	AEP (100%)
b3275.2	Rebuild the Cresaps Switch – McElroy Station 69 kV, approximately 0.67 mile	AEP (100%)
b3275.3	Replace a single span of 4/0 ACSR from Moundsville - Natrium structure 93L to Carbon Tap switch 69 kV located between the Colombia Carbon and Conner Run stations. Remainder of the line is 336 ACSR	AEP (100%)
b3275.4	Rebuild from Colombia Carbon to Columbia Carbon Tap structure 93N 69 kV, approximately 0.72 mile. The remainder of the line between Colombia Carbon Tap structure 93N and Natrium station is 336 ACSR and will remain	AEP (100%)
b3275.5	Replace the Cresaps 69 kV 3-Way Phase-Over-Phase switch and structure with a new 1200A 3-Way switch and steel pole	AEP (100%)
b3275.6	Replace 477 MCM Alum bus and risers at McElroy 69 kV station	AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3275.7	Replace Natrium 138 kV bus existing between CB-BT1 and along the 138 kV Main Bus #1 dropping to CBH1 from the 500 MCM conductors to a 1272 KCM AAC conductor. Replace the dead end clamp and strain insulators	AEP (100%)
b3276.1	Rebuild the 2/0 Copper section of the Lancaster – South Lancaster 69 kV line, approximately 2.9 miles of the 3.2 miles total length with 556 ACSR conductor. The remaining section has a 336 ACSR conductor	AEP (100%)
b3276.2	Rebuild the 1/0 Copper section of the line between Lancaster Junction and Ralston station 69 kV, approximately 2.3 miles of the 3.1 miles total length	AEP (100%)
b3276.3	Rebuild the 2/0 Copper portion of the line between East Lancaster Tap and Lancaster 69 kV, approximately 0.81 mile	AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3278.1	Replace H.S. MOAB switches on the high side of the 138/69/34.5 kV transformer T1 with a H.S. circuit switcher at Saltville station	AEP (100%)
b3278.2	Replace existing 138/69/34.5 kV transformer T2 with a new 130 MVA 138/69/13 kV transformer at Meadowview station	AEP (100%)
b3279	Install a new 138 kV, 21.6 MVAR cap bank and circuit switcher at Apple Grove station	AEP (100%)
b3280	Rebuild the existing Cabin Creek – Kelly Creek 46 kV line (to Structure 366-44), approximately 4.4 miles. This section is double circuit with the existing Cabin Creek – London 46 kV line so a double circuit rebuild would be required	AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3281	Install 138 kV circuit switcher on the 138/69 kV Transformer #1 and 138/34.5 kV Transformer #2 at Dewey 138 kV substation. Install 138 kV 2000 A 40 kA breaker on Stanville line at Dewey 138 kV substation	AEP (100%)
b3282.1	Install a second 138 kV circuit utilizing 795 ACSR conductor on the open position of the existing double circuit towers from East Huntington – North Proctorville. Remove the existing 34.5 kV line from East Huntington – North Chesapeake and rebuild this section to 138 kV served from a new PoP switch off the new East Huntington – North Proctorville 138 kV #2 line	AEP (100%)
b3282.2	Install a 138 kV 40 kA circuit breaker at North Proctorville station	AEP (100%)
b3282.3	Install a 138 kV 40 kA circuit breaker at East Huntington station	AEP (100%)
b3282.4	Convert the existing 34/12 kV North Chesapeake to a 138/12 kV station	AEP (100%)
b3283	Replace the existing Inez 138/69 kV 50 MVA autotransformer with a 138/69 kV 90 MVA autotransformer	AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3284	Rebuild approximately 5.44 miles of 69 kV line from Lock Lane to Point Pleasant		AEP (100%)
b3285	Replace the Meigs 69 kV 4/0 Cu station riser towards Gavin and rebuild the section of the Meigs – Hemlock 69 kV circuit from Meigs to approximately Structure #40 (about 4 miles) replacing the line conductor 4/0 ACSR with the line conductor size 556.5 ACSR		AEP (100%)
b3286	Reconductor the first 3 spans from Merrimac station to Structure 464-3 of 3/0 ACSR conductor utilizing 336 ACSR on the existing Merrimac – Midway 69 kV circuit		AEP (100%)
b3287	Upgrade 69 kV risers at Moundsville station towards George Washington		AEP (100%)
b3288.1	Construct approximately 2.75 miles Orinoco – Stone 69 kV transmission line in the clear between Orinoco station and Stone station		AEP (100%)
b3288.2	Construct approximately 3.25 miles Orinoco – New Camp 69 kV transmission line in the clear between Orinoco station and New Camp station		AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3288.3	At Stone substation, circuit breaker A to remain in place and be utilized as T1 low side breaker, circuit breaker B to remain in place and be utilized as new Hatfield (via Orinoco and New Camp) 69 kV line breaker. Add new 69 kV circuit breaker E for Coleman line exit	AEP (100%)
b3288.4	Reconfigure the New Camp 69 kV tap which includes access road improvements/installation, temporary wire and permanent wire work along with dead end structures installation	AEP (100%)
b3288.5	At New Camp substation, rebuild the 69 kV bus, add 69 kV MOAB W and replace the 69 kV ground switch Z1 with a 69 kV circuit switcher on the New Camp transformer	AEP (100%)
b3289.1	Install high-side circuit switcher on 138/69/12 kV T5 at Roanoke station	AEP (100%)
b3289.2	Install high-side circuit switcher on 138/69/34.5 kV T1 at Huntington Court station	AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3290.1	Build 9.4 miles of single circuit 69 kV line from Roselms to near East Ottoville 69 kV switch		AEP (100%)
b3290.2	Rebuild 7.5 miles of double circuit 69 kV line between East Ottoville switch and Kalida station (combining with the new Roselms to Kalida 69 kV circuit)		AEP (100%)
b3290.3	At Roselms switch, install a new three way 69 kV, 1200 A phase-over-phase switch, with sectionalizing capability		AEP (100%)
b3290.4	At Kalida 69 kV station, terminate the new line from Roselms switch. Move the CS XT2 from high side of T2 to the high side of T1. Remove existing T2 transformer		AEP (100%)
b3291	Replace the Russ St. 34.5 kV switch		AEP (100%)
b3292	Replace existing 69 kV capacitor bank at Stuart station with a 17.2 MVAR capacitor bank		AEP (100%)
b3293	Replace 2/0 Cu entrance span conductor on the South Upper Sandusky 69 kV line and 4/0 Cu Risers/Bus conductors on the Forest line at Upper Sandusky 69 kV station		AEP (100%)
b3294	Replace existing 69 kV disconnect switches for circuit breaker "C" at Walnut Avenue station		AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3295	Grundy 34.5 kV: Install a 34.5 kV 9.6 MVAR cap bank		AEP (100%)
b3296	Rebuild the overloaded portion of the Concord – Whitaker 34.5 kV line (1.13 miles). Rebuild is double circuit and will utilize 795 ACSR conductor		AEP (100%)
b3297.1	Rebuild 4.23 miles of 69 kV line between Sawmill and Lazelle station, using 795 ACSR 26/7 conductor		AEP (100%)
b3297.2	Rebuild 1.94 miles of 69 kV line between Westerville and Genoa stations, using 795 ACSR 26/7 conductor		AEP (100%)
b3297.3	Replace risers and switchers at Lazelle, Westerville, and Genoa 69 kV stations. Upgrade associated relaying accordingly		AEP (100%)
b3298	Rebuild 0.8 mile of double circuit 69 kV line between South Toronto and West Toronto. Replace 219 ACSR with 556 ACSR		AEP (100%)
b3298.1	Replace the 69 kV breaker D at South Toronto station with 40 kA breaker		AEP (100%)
b3299	Rebuild 0.2 mile of the West End Fostoria - Lumberjack Switch 69 kV line with 556 ACSR (Dove) conductors. Replace jumpers on West End Fostoria line at Lumberjack Switch		AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3307	Rebuild Fleming station in the clear; Replace 138/69kV Fleming Transformer #1 with 138/69 kV 130 MVA transformer with high side 138 kV CB; Install a 5 breaker 69 kV ring bus on the low side of the transformer, replace 69 kV circuit switcher AA, replace 69/12 kV Transformer #3 with 69/12 kV 30 MVA transformer, replace 12 kV CB A and D; Retire existing Fleming substation	AEP (100%)
b3308	Reconductor and rebuild 1 span of T-line on the Fort Steuben – Sunset Blvd 69 kV branch with 556 ACSR	AEP (100%)
b3309	Rebuild 1.75 miles of the Greenlawn – East Tiffin line section of the Carothers – Greenlawn 69 kV circuit containing 133 ACSR conductor with 556 ACSR conductor. Upgrade relaying as required	AEP (100%)
b3310.1	Rebuild 10.5 miles of the Howard – Willard 69 kV line utilizing 556 ACSR conductor	AEP (100%)
b3310.2	Upgrade relaying at Howard 69 kV station	AEP (100%)
b3310.3	Upgrade relaying at Willard 69 kV station	AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3312	Rebuild approximately 4 miles of existing 69 kV line between West Mount Vernon and Mount Vernon stations. Replace the existing 138/69 kV transformer at West Mount Vernon with a larger 90 MVA unit along with existing 69 kV breaker 'C'	AEP (100%)
b3313	Add 40 kA circuit breakers on the low and high side of the East Lima 138/69 kV transformer	AEP (100%)
b3314.1	Install a new 138/69 kV 130 MVA transformer and associated protection at Elliot station	AEP (100%)
b3314.2	Perform work at Strouds Run station to retire 138/69/13 kV 33.6 MVA Transformer #1 and install a dedicated 138/13 KV distribution transformer	AEP (100%)
b3315	Upgrade relaying on Mark Center – South Hicksville 69 kV line and replace Mark Center cap bank with a 7.7 MVAR unit	AEP (100%)

SCHEDULE 12 – APPENDIX A

(20) Virginia Electric and Power Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1698.7	Replace Loudoun 230 kV breaker '203052' with 63 kA rating	Dominion (100%)
b1696.1	Replace the Idylwood 230 kV '25112' breaker with 50 kA breaker	Dominion (100%)
b1696.2	Replace the Idylwood 230 kV '209712' breaker with 50 kA breaker	Dominion (100%)
b1793.1	Remove the Carolina 22 SPS to include relay logic changes, minor control wiring, relay resets and SCADA programming upon completion of project	Dominion (100%)
b2281	Additional Temporary SPS at Bath County	Dominion (100%)
b2350	Reconductor 211 feet of 545.5 ACAR conductor on 59 Line Elmont - Greenwood DP 115 kV to achieve a summer emergency rating of 906 amps or greater	Dominion (100%)
b2358	Install a 230 kV 54 MVAR capacitor bank on the 2016 line at Harmony Village Substation	Dominion (100%)
b2359	Wreck and rebuild approximately 1.3 miles of existing 230 kV line between Cochran Mill - X4-039 Switching Station	Dominion (100%)
b2360	Build a new 39 mile 230 kV transmission line from Dooms - Lexington on existing right-of-way	Dominion (100%)
b2361	Construct 230 kV OH line along existing Line #2035 corridor, approx. 2.4 miles from Idylwood - Dulles Toll Road (DTR) and 2.1 miles on new right-of-way along DTR to new Scott's Run Substation	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2368	Replace the Brambleton 230 kV breaker '209502' with 63 kA breaker		Dominion (100%)
b2369	Replace the Brambleton 230 kV breaker '213702' with 63 kA breaker		Dominion (100%)
b2370	Replace the Brambleton 230 kV breaker 'H302' with 63 kA breaker		Dominion (100%)
b2373	Build a 2nd Loudoun - Brambleton 500 kV line within the existing ROW. The Loudoun - Brambleton 230 kV line will be relocated as an underbuild on the new 500 kV line		<p>Load-Ratio Share Allocation: AEC (1.711.67%) / AEP (14.0413.94%) / APS (5.615.64%) / ATSI (8.108.02%) / BGE (4.364.12%) / ComEd (13.1413.46%) / Dayton (2.152.12%) / DEOK (3.233.37%) / DL (1.731.76%) / DPL (2.652.55%) / Dominion (13.0312.97%) / EKPC (1.771.81%) / JCPL (3.843.92%) / ME (1.931.95%) / NEPTUNE* (0.450.24%) / OVEC (0.07%) / PECO (5.295.39%) / PENELEC (1.891.84%) / PEPCO (3.823.71%) / PPL (4.724.78%) / PSEG (6.216.40%) / RE (0.260.27%)</p> <p>DFAX Allocation: APS (25.5120.07%) / Dominion (74.4979.93%)</p>
b2397	Replace the Beaumeade 230 kV breaker '2079T2116' with 63 kA		Dominion (100%)
b2398	Replace the Beaumeade 230 kV breaker '2079T2130' with 63 kA		Dominion (100%)
b2399	Replace the Beaumeade 230 kV breaker '208192' with 63 kA		Dominion (100%)
b2400	Replace the Beaumeade 230 kV breaker '209592' with 63 kA		Dominion (100%)
b2401	Replace the Beaumeade 230 kV breaker '211692' with 63 kA		Dominion (100%)
b2402	Replace the Beaumeade 230 kV breaker '227T2130' with 63 kA		Dominion (100%)

The Annual Revenue Requirement for all Virginia Electric and Power Company projects in this Section 20 shall be as specified in Attachment 7 to Appendix A of Attachment H-16A and under the procedures detailed in Attachment H-16B.

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2403	Replace the Beaumeade 230 kV breaker '274T2130' with 63 kA	Dominion (100%)
b2404	Replace the Beaumeade 230 kV breaker '227T2095' with 63 kA	Dominion (100%)
b2405	Replace the Pleasant view 230 kV breaker '203T274' with 63 kA	Dominion (100%)
b2443	Construct new underground 230 kV line from Glebe to Station C, rebuild Glebe Substation, construct 230 kV high side bus at Station C with option to install 800 MVA PAR	Dominion (97.11%) / ME (0.18%) / PEPCO (2.71%)
b2443.1	Replace the Idylwood 230 kV breaker '203512' with 50 kA	Dominion (100%)
b2443.2	Replace the Ox 230 kV breaker '206342' with 63 kA breaker	Dominion (100%)
b2443.3	Glebe – Station C PAR	DFAX Allocation: Dominion (22.57%) / PEPCO (77.43%)
b2443.6	Install a second 500/230 kV transformer at Possum Point substation and replace bus work and associated equipment as needed	Dominion (100%)
b2443.7	Replace 19 63 kA 230 kV breakers with 19 80 kA 230 kV breakers	Dominion (100%)
b2457	Replace 24 115 kV wood h-frames with 230 kV Dominion pole H-frame structures on the Clubhouse – Purdy 115 kV line	Dominion (100%)
b2458.1	Replace 12 wood H-frame structures with steel H-frame structures and install shunts on all conductor splices on Carolina – Woodland 115 kV	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2458.2	Upgrade all line switches and substation components at Carolina 115 kV to meet or exceed new conductor rating of 174 MVA	Dominion (100%)
b2458.3	Replace 14 wood H-frame structures on Carolina – Woodland 115 kV	Dominion (100%)
b2458.4	Replace 2.5 miles of static wire on Carolina – Woodland 115 kV	Dominion (100%)
b2458.5	Replace 4.5 miles of conductor between Carolina 115 kV and Jackson DP 115 kV with min. 300 MVA summer STE rating; Replace 8 wood H-frame structures located between Carolina and Jackson DP with steel H-frames	Dominion (100%)
b2460.1	Replace Hanover 230 kV substation line switches with 3000A switches	Dominion (100%)
b2460.2	Replace wave traps at Four River 230 kV and Elmont 230 kV substations with 3000A wave traps	Dominion (100%)
b2461	Wreck and rebuild existing Remington CT – Warrenton 230 kV (approx. 12 miles) as a double-circuit 230 kV line	Dominion (100%)
b2461.1	Construct a new 230 kV line approximately 6 miles from NOVEC's Wheeler Substation a new 230 kV switching station in Vint Hill area	Dominion (100%)
b2461.2	Convert NOVEC's Gainesville – Wheeler line (approximately 6 miles) to 230 kV	Dominion (100%)
b2461.3	Complete a Vint Hill – Wheeler – Loudoun 230 kV networked line	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2471	Replace Midlothian 500 kV breaker 563T576 and motor operated switches with 3 breaker 500 kV ring bus. Terminate Lines # 563 Carson – Midlothian, #576 Midlothian –North Anna, Transformer #2 in new ring	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: Dominion (100%)
b2504	Rebuild 115 kV Line #32 from Halifax-South Boston (6 miles) for min. of 240 MVA and transfer Welco tap to Line #32. Moving Welco to Line #32 requires disabling auto-sectionalizing scheme	Dominion (100%)
b2505	Install structures in river to remove the 115 kV #65 line (Whitestone-Harmony Village 115 kV) from bridge and improve reliability of the line	Dominion (100%)
b2542	Replace the Loudoun 500 kV 'H2T502' breaker with a 50 kA breaker	Dominion (100%)
b2543	Replace the Loudoun 500 kV 'H2T584' breaker with a 50 kA breaker	Dominion (100%)
b2565	Reconductor wave trap at Carver Substation with a 2000A wave trap	Dominion (100%)

b2566	Reconductor 1.14 miles of existing line between ACCA and Hermitage and upgrade associated terminal equipment		Dominion (100%)
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*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2582	Rebuild the Elmont – Cunningham 500 kV line	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: BGE (6.10%) / Dominion (100 <u>84.49</u> %) / PEPCO (9.41%)
b2583	Install 500 kV breaker at Ox Substation to remove Ox Tx#1 from H1T561 breaker failure outage.	Dominion (100%)
b2584	Relocate the Bremono load (transformer #5) to #2028 (Bremono-Charlottesville 230 kV) line and Cartersville distribution station to #2027 (Bremono-Midlothian 230 kV) line	Dominion (100%)
b2585	Reconductor 7.63 miles of existing line between Cranes and Stafford, upgrade associated line switches at Stafford	PEPCO (100%)

b2620	Wreck and rebuild the Chesapeake – Deep Creek – Bowers Hill – Hodges Ferry 115 kV line; minimum rating 239 MVA normal/emergency, 275 MVA load dump rating		Dominion (100%)
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*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2622	Rebuild Line #47 between Kings Dominion 115 kV and Fredericksburg 115 kV to current standards with summer emergency rating of 353 MVA at 115 kV	Dominion (100%)
b2623	Rebuild Line #4 between Bremo and Structure 8474 (4.5 miles) to current standards with a summer emergency rating of 261 MVA at 115 kV	Dominion (100%)
b2624	Rebuild 115 kV Lines #18 and #145 between Possum Point Generating Station and NOVEC's Smoketown DP (approx. 8.35 miles) to current 230 kV standards with a normal continuous summer rating of 524 MVA at 115 kV	Dominion (100%)
b2625	Rebuild 115 kV Line #48 between Thole Street and Structure 48/71 to current standard. The remaining line to Sewells Point is 2007 vintage. Rebuild 115 kV Line #107 line, Sewells Point to Oakwood, between structure 107/17 and 107/56 to current standard.	Dominion (100%)
b2626	Rebuild 115 kV Line #34 between Skiffes Creek and Yorktown and the double circuit portion of 115 kV Line #61 to current standards with a summer emergency rating of 353 MVA at 115 kV	Dominion (100%)
b2627	Rebuild 115 kV Line #1 between Crewe 115 kV and Fort Pickett DP 115 kV (12.2 miles) to current standards with summer emergency rating of 261 MVA at 115 kV	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2628 Rebuild 115 kV Line #82 Everetts – Voice of America (20.8 miles) to current standards with a summer emergency rating of 261 MVA at 115 kV		Dominion (100%)
b2629 Rebuild the 115 kV Lines #27 and #67 lines from Greenwich 115 kV to Burton 115 kV Structure 27/280 to current standard with a summer emergency rating of 262 MVA at 115 kV		Dominion (100%)
b2630 Install circuit switchers on Gravel Neck Power Station GSU units #4 and #5. Install two 230 kV CCVT's on Lines #2407 and #2408 for loss of source sensing		Dominion (100%)
b2636 Install three 230 kV bus breakers and 230 kV, 100 MVAR Variable Shunt Reactor at Dahlgren to provide line protection during maintenance, remove the operational hazard and provide voltage reduction during light load conditions		Dominion (100%)
b2647 Rebuild Boynton Plank Rd – Kerr Dam 115 kV Line #38 (8.3 miles) to current standards with summer emergency rating of 353 MVA at 115 kV.		Dominion (100%)
b2648 Rebuild Carolina – Kerr Dam 115 kV Line #90 (38.7 miles) to current standards with summer emergency rating of 353 MVA 115 kV.		Dominion (100%)
b2649 Rebuild Clubhouse – Carolina 115 kV Line #130 (17.8 miles) to current standards with summer emergency rating of 353 MVA at 115 kV.		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2649.1	Rebuild of 1.7 mile tap to Metcalf and Belfield DP (MEC) due to poor condition. The existing summer rating of the tap is 48 MVA and existing conductor is 4/0 ACSR on wood H-frames. The proposed new rating is 176 MVA using 636 ACSR conductor		Dominion (100%)
b2649.2	Rebuild of 4.1 mile tap to Brinks DP (MEC) due to wood poles built in 1962. The existing summer rating of the tap is 48 MVA and existing conductor is 4/0 ACSR and 393.6 ACSR on wood H-frames. The proposed new rating is 176 MVA using 636 ACSR conductor		Dominion (100%)
b2650	Rebuild Twittys Creek – Pamplin 115 kV Line #154 (17.8 miles) to current standards with summer emergency rating of 353 MVA at 115 kV.		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2651	Rebuild Buggs Island – Plywood 115 kV Line #127 (25.8 miles) to current standards with summer emergency rating of 353 MVA at 115 kV. The line should be rebuilt for 230 kV and operated at 115 kV.		Dominion (100%)
b2652	Rebuild Greatbridge – Hickory 115 kV Line #16 and Greatbridge – Chesapeake E.C. to current standard with summer emergency rating of 353 MVA at 115 kV.		Dominion (100%)
b2653.1	Build 20 mile 115 kV line from Pantego to Trowbridge with summer emergency rating of 353 MVA.		Dominion (100%)
b2653.2	Install 115 kV four-breaker ring bus at Pantego		Dominion (100%)
b2653.3	Install 115 kV breaker at Trowbridge		Dominion (100%)
b2654.1	Build 15 mile 115 kV line from Scotland Neck to S Justice Branch with summer emergency rating of 353 MVA. New line will be routed to allow HEMC to convert Dawson's Crossroads RP from 34.5 kV to 115 kV.		Dominion (100%)
b2654.2	Install 115 kV three-breaker ring bus at S Justice Branch		Dominion (100%)
b2654.3	Install 115 kV breaker at Scotland Neck		Dominion (100%)
b2654.3	Install a 2nd 224 MVA 230/115 kV transformer at Hathaway		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2665	Rebuild the Cunningham – Dooks 500 kV line	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: Dominion (100 <u>72.18</u> %) / <u>PEPCO (27.82%)</u>
b2686	Pratts Area Improvement	Dominion (100%)
b2686.1	Build a 230 kV line from Remington Substation to Gordonsville Substation utilizing existing ROW	Dominion (100%)
b2686.2	Install a 3rd 230/115 kV transformer at Gordonsville Substation	Dominion (100%)
b2686.3	Upgrade Line 2088 between Gordonsville Substation and Louisa CT Station	Dominion (100%)
b2686.4	Replace the Remington CT 230 kV breaker “2114T2155” with a 63 kA breaker	Dominion (100%)
b2686.11	Upgrading sections of the Gordonsville – Somerset 115 kV circuit	Dominion (100%)
b2686.12	Upgrading sections of the Somerset – Doubleday 115 kV circuit	Dominion (100%)

b2686.13	Upgrading sections of the Orange – Somerset 115 kV circuit		Dominion (100%)
b2686.14	Upgrading sections of the Mitchell – Mt. Run 115 kV circuit		Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement Responsible Customer(s)	
b2717.1	De-energize Davis – Rosslyn #179 and #180 69 kV lines		Dominion (100%)
b2717.2	Remove splicing and stop joints in manholes		Dominion (100%)
b2717.3	Evacuate and dispose of insulating fluid from various reservoirs and cables		Dominion (100%)
b2717.4	Remove all cable along the approx. 2.5 mile route, swab and cap-off conduits for future use, leave existing communication fiber in place		Dominion (100%)
b2719.1	Expand Perth substation and add a 115 kV four breaker ring		Dominion (100%)
b2719.2	Extend the Hickory Grove DP tap 0.28 miles to Perth and terminate it at Perth		Dominion (100%)
b2719.3	Split Line #31 at Perth and terminate it into the new ring bus with 2 breakers separating each of the line terminals to prevent a breaker failure from taking out both 115 kV lines		Dominion (100%)
b2720	Replace the Loudoun 500 kV 'H1T569' breakers with 50 kA breaker		Dominion (100%)
b2729	Optimal Capacitors Configuration: New 175 MVAR capacitor at Brambleton, new 175 MVAR capacitor at Ashburn, new 300 MVAR capacitor at Shelhorn, new 150 MVAR capacitor at Liberty		AEC (1.96%) / BGE (14.37%) / Dominion (35.11%) / DPL (3.76%) / ECP** (0.29%) / HTP*** (0.34%) / JCPL (3.31%) / ME (2.51%) / NEPTUNE* (0.63%) / PECO (6.26%) / PEPCO (20.23%) / PPL (3.94%) / PSEG (7.29%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2744	Rebuild the Carson – Rogers Rd 500 kV circuit	Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%) DFAX Allocation: Dominion (100 94.47%) / <u>EKPC (0.22%) / PEPCO (5.31%)</u>
b2745	Rebuild 21.32 miles of existing line between Chesterfield – Lakeside 230 kV	Dominion (100%)
b2746.1	Rebuild Line #137 Ridge Rd – Kerr Dam 115 kV, 8.0 miles, for 346 MVA summer emergency rating	Dominion (100%)
b2746.2	Rebuild Line #1009 Ridge Rd – Chase City 115 kV, 9.5 miles, for 346 MVA summer emergency rating	Dominion (100%)
b2746.3	Install a second 4.8 MVAR capacitor bank on the 13.8 kV bus of each transformer at Ridge Rd	Dominion (100%)
b2747	Install a Motor Operated Switch and SCADA control between Dominion's Gordonsville 115 kV bus and FirstEnergy's 115 kV line	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2757	Install a +/-125 MVar Statcom at Colington 230 kV		Dominion (100%)
b2758	Rebuild Line #549 Dooms – Valley 500 kV		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: Dominion (100%)

b2759	Rebuild Line #550 Mt. Storm – Valley 500_kV		<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (87.50%) / ATSI (0.37%) / DL (0.19%) / Dominion (1.04%) / EKPC (10.90%)</p>
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*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2800	The 7 mile section from Dozier to Thompsons Corner of line #120 will be rebuilt to current standards using 768.2 ACSS conductor with a summer emergency rating of 346 MVA at 115 kV. Line is proposed to be rebuilt on single circuit steel monopole structure	Dominion (100%)
b2801	Lines #76 and #79 will be rebuilt to current standard using 768.2 ACSS conductor with a summer emergency rating of 346 MVA at 115 kV. Proposed structure for rebuild is double circuit steel monopole structure	Dominion (100%)
b2802	Rebuild Line #171 from Chase City – Boydton Plank Road tap by removing end-of-life facilities and installing 9.4 miles of new conductor. The conductor used will be at current standards with a summer emergency rating of 393 MVA at 115 kV	Dominion (100%)
b2815	Build a new Pinewood 115 kV switching station at the tap serving North Doswell DP with a 115 kV four breaker ring bus	Dominion (100%)
b2842	Update the nameplate for Mount Storm 500 kV "57272" to be 50 kA breaker	Dominion (100%)
b2843	Replace the Mount Storm 500 kV "G2TY" with 50 kA breaker	Dominion (100%)
b2844	Replace the Mount Storm 500 kV "G2TZ" with 50 kA breaker	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2845	Update the nameplate for Mount Storm 500 kV "G3TSX1" to be 50 kA breaker	Dominion (100%)
b2846	Update the nameplate for Mount Storm 500 kV "SX172" to be 50 kA breaker	Dominion (100%)
b2847	Update the nameplate for Mount Storm 500 kV "Y72" to be 50 kA breaker	Dominion (100%)
b2848	Replace the Mount Storm 500 kV "Z72" with 50 kA breaker	Dominion (100%)
b2871	Rebuild 230 kV line #247 from Swamp to Suffolk (31 miles) to current standards with a summer emergency rating of 1047 MVA at 230 kV	Dominion (100%)
b2876	Rebuild line #101 from Mackeys – Creswell 115 kV, 14 miles, with double circuit structures. Install one circuit with provisions for a second circuit. The conductor used will be at current standards with a summer emergency rating of 262 MVA at 115 kV	Dominion (100%)
b2877	Rebuild line #112 from Fudge Hollow – Lowmoor 138 kV (5.16 miles) to current standards with a summer emergency rating of 314 MVA at 138 kV	Dominion (100%)
b2899	Rebuild 230 kV line #231 to current standard with a summer emergency rating of 1046 MVA. Proposed conductor is 2-636 ACSR	Dominion (100%)
b2900	Build a new 230/115 kV switching station connecting to 230 kV network line #2014 (Earleys – Everetts). Provide a 115 kV source from the new station to serve Windsor DP	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2922	Rebuild 8 of 11 miles of 230 kV lines #211 and #228 to current standard with a summer emergency rating of 1046 MVA for rebuilt section. Proposed conductor is 2-636 ACSR	Dominion (100%)
b2928	Rebuild four structures of 500 kV line #567 from Chickahominy to Surry using galvanized steel and replace the river crossing conductor with 3-1534 ACSR. This will increase the line #567 line rating from 1954 MVA to 2600 MVA	Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%) DFAX Allocation: Dominion (100%)
b2929	Rebuild 230 kV line #2144 from Winfall to Swamp (4.3 miles) to current standards with a standard conductor (bundled 636 ACSR) having a summer emergency rating of 1047 MVA at 230 kV	Dominion (100%)
b2960	Replace fixed series capacitors on 500 kV Line #547 at Lexington and on 500 kV Line #548 at Valley	See sub-IDs for cost allocations

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2960.1	Replace fixed series capacitors on 500 kV Line #547 at Lexington	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: DEOK (5.63<u>1.39</u>%) / Dominion (91.06<u>21.26</u>%) / EKPC (3.31<u>0.82</u>%) / <u>PEPCO</u> (<u>76.53</u>%)</p>

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2960.2	Replace fixed series capacitors on 500 kV Line #548 at Valley	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: DEOK (17.57 <u>20.11</u> %) / Dominion (74.24 <u>67.22</u> %) / EKPC (8.19 <u>9.17</u> %) / <u>PEPCO (3.50%)</u>
b2961	Rebuild approximately 3 miles of Line #205 & Line #2003 from Chesterfield to Locks & Poe respectively	Dominion (100%)
b2962	Split Line #227 (Brambleton – Beaumeade 230 kV) and terminate into existing Belmont substation	Dominion (100%)
b2962.1	Replace the Beaumeade 230 kV breaker “274T2081” with 63 kA breaker	Dominion (100%)
b2962.2	Replace the NIVO 230 kV breaker “2116T2130” with 63 kA breaker	Dominion (100%)
b2963	Reconductor the Woodbridge to Occoquan 230 kV line segment of Line #2001 with 1047 MVA conductor and replace line terminal equipment at Possum Point, Woodbridge, and Occoquan	Dominion (100%)

| *Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2978	Install 2-125 MVAR STATCOMs at Rawlings and 1-125 MVAR STATCOM at Clover 500 kV substations	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPSCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b2980	Rebuild 115 kV Line #43 between Staunton and Harrisonburg (22.8 miles) to current standards with a summer emergency rating of 261 MVA at 115 kV	Dominion (100%)
b2981	Rebuild 115 kV Line #29 segment between Fredericksburg and Aquia Harbor to current 230 kV standards (operating at 115 kV) utilizing steel H-frame structures with 2-636 ACSR to provide a normal continuous summer rating of 524 MVA at 115 kV (1047 MVA at 230 kV)	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b2989	Install a second 230/115 kV Transformer (224 MVA) approximately 1 mile north of Bremo and tie 230 kV Line #2028 (Bremo – Charlottesville) and 115 kV Line #91 (Bremo - Sherwood) together. A three breaker 230 kV ring bus will split Line #2028 into two lines and Line #91 will also be split into two lines with a new three breaker 115 kV ring bus. Install a temporary 230/115 kV transformer at Bremo substation for the interim until the new substation is complete		Dominion (100%)
b2990	Chesterfield to Basin 230 kV line – Replace 0.14 miles of 1109 ACAR with a conductor which will increase the line rating to approximately 706 MVA		Dominion (100%)
b2991	Chaparral to Locks 230 kV line – Replace breaker lead		Dominion (100%)
b2994	Acquire land and build a new switching station (Skippers) at the tap serving Brink DP with a 115 kV four breaker ring to split Line #130 and terminate the end points		Dominion (100%)
b3018	Rebuild Line #49 between New Road and Middleburg substations with single circuit steel structures to current 115 kV standards with a minimum summer emergency rating of 261 MVA		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3019	Rebuild 500 kV Line #552 Bristers to Chancellor – 21.6 miles long	Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %) DFAX Allocation: Dominion (89.20 <u>93.48</u> %) / PEPCO (10.80 <u>6.52</u> %)
b3019.1	Update the nameplate for Morrisville 500 kV breaker “H1T594” to be 50 kA	Dominion (100%)
b3019.2	Update the nameplate for Morrisville 500 kV breaker “H1T545” to be 50 kA	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3020	Rebuild 500 kV Line #574 Ladysmith to Elmont – 26.2 miles long	<p>Load-Ratio Share Allocation: AEC (1.71<u>1.67</u>%) / AEP (14.04<u>13.94</u>%) / APS (5.61<u>5.64</u>%) / ATSI (8.10<u>8.02</u>%) / BGE (4.36<u>4.12</u>%) / ComEd (13.14<u>13.46</u>%) / Dayton (2.15<u>2.12</u>%) / DEOK (3.23<u>3.37</u>%) / DL (1.73<u>1.76</u>%) / DPL (2.65<u>2.55</u>%) / Dominion (13.03<u>12.97</u>%) / EKPC (1.77<u>1.81</u>%) / JCPL (3.84<u>3.92</u>%) / ME (1.93<u>1.95</u>%) / NEPTUNE* (0.45<u>0.24</u>%) / OVEC (0.07%) / PECO (5.29<u>5.39</u>%) / PENELEC (1.89<u>1.84</u>%) / PEPCO (3.82<u>3.71</u>%) / PPL (4.72<u>4.78</u>%) / PSEG (6.21<u>6.40</u>%) / RE (0.26<u>0.27</u>%)</p> <p>DFAX Allocation: APS (16.36%) / DEOK (11.61%) / Dominion (51.27%) / EKPC (5.30%) / PEPCO (15.46%)</p>

b3021	Rebuild 500 kV Line #581 Ladysmith to Chancellor – 15.2 miles long		Load-Ratio Share Allocation: AEC (1.71 <u>1.67</u> %) / AEP (14.04 <u>13.94</u> %) / APS (5.61 <u>5.64</u> %) / ATSI (8.10 <u>8.02</u> %) / BGE (4.36 <u>4.12</u> %) / ComEd (13.14 <u>13.46</u> %) / Dayton (2.15 <u>2.12</u> %) / DEOK (3.23 <u>3.37</u> %) / DL (1.73 <u>1.76</u> %) / DPL (2.65 <u>2.55</u> %) / Dominion (13.03 <u>12.97</u> %) / EKPC (1.77 <u>1.81</u> %) / JCPL (3.84 <u>3.92</u> %) / ME (1.93 <u>1.95</u> %) / NEPTUNE* (0.45 <u>0.24</u> %) / OVEC (0.07%) / PECO (5.29 <u>5.39</u> %) / PENELEC (1.89 <u>1.84</u> %) / PEPSCO (3.82 <u>3.71</u> %) / PPL (4.72 <u>4.78</u> %) / PSEG (6.21 <u>6.40</u> %) / RE (0.26 <u>0.27</u> %)
b3026	Reconductor Line #274 (Pleasant View – Ashburn – Beaumeade 230 kV) with a minimum rating of 1200 MVA. Also upgrade terminal equipment		DFAX Allocation: Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3027.1	Add a 2nd 500/230 kV 840 MVA transformer at Dominion's Ladysmith substation	Dominion (100%)
b3027.2	Reconductor 230 kV Line #2089 between Ladysmith and Ladysmith CT substations to increase the line rating from 1047 MVA to 1225 MVA	Dominion (100%)
b3027.3	Replace the Ladysmith 500 kV breaker "H1T581" with 50 kA breaker	Dominion (100%)
b3027.4	Update the nameplate for Ladysmith 500 kV breaker "H1T575" to be 50 kA breaker	Dominion (100%)
b3027.5	Update the nameplate for Ladysmith 500 kV breaker "568T574" (will be renumbered as "H2T568") to be 50 kA breaker	Dominion (100%)
b3055	Install spare 230/69 kV transformer at Davis substation	Dominion (100%)
b3056	Partial rebuild 230 kV Line #2113 Waller to Lightfoot	Dominion (100%)
b3057	Rebuild 230 kV Lines #2154 and #19 Waller to Skiffes Creek	Dominion (100%)
b3058	Partial rebuild of 230 kV Lines #265, #200 and #2051	Dominion (100%)
b3059	Rebuild 230 kV Line #2173 Loudoun to Elklick	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b3060	Rebuild 4.6 mile Elklick – Bull Run 230 kV Line #295 and the portion (3.85 miles) of the Clifton – Walney 230 kV Line #265 which shares structures with Line #295		Dominion (100%)
b3088	Rebuild 4.75 mile section of Line #26 between Lexington and Rockbridge with a minimum summer emergency rating of 261 MVA		Dominion (100%)
b3089	Rebuild 230 kV Line #224 between Lanexa and Northern Neck utilizing double circuit structures to current 230 kV standards. Only one circuit is to be installed on the structures with this project with a minimum summer emergency rating of 1047 MVA		Dominion (100%)
b3090	Convert the overhead portion (approx. 1500 feet) of 230 kV Lines #248 & #2023 to underground and convert Glebe substation to gas insulated substation		Dominion (100%)
b3096	Rebuild 230 kV line No.2063 (Clifton – Ox) and part of 230 kV line No.2164 (Clifton – Keene Mill) with double circuit steel structures using double circuit conductor at current 230 kV northern Virginia standards with a minimum rating of 1200 MVA		Dominion (100%)
b3097	Rebuild 4 miles of 115 kV Line #86 between Chesterfield and Centralia to current standards with a minimum summer emergency rating of 393 MVA		Dominion (100%)
b3098	Rebuild 9.8 miles of 115 kV Line #141 between Balcony Falls and Skimmer and 3.8 miles of 115 kV Line #28 between Balcony Falls and Cushaw to current standards with a minimum rating of 261 MVA		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3098.1	Rebuild Balcony Falls 115 kV substation	Dominion (100%)
b3110.1	Rebuild Line #2008 between Loudoun to Dulles Junction using single circuit conductor at current 230 kV northern Virginia standards with minimum summer ratings of 1200 MVA. Cut and loop Line #265 (Clifton – Sully) into Bull Run substation. Add three (3) 230 kV breakers at Bull Run to accommodate the new line and upgrade the substation	Dominion (100%)
b3110.2	Replace the Bull Run 230 kV breakers “200T244” and “200T295” with 50 kA breakers	Dominion (100%)
b3110.3	Replace the Clifton 230 kV breakers “201182” and “XT2011” with 63 kA breakers	Dominion (100%)
b3113	Rebuild approximately 1 mile of 115 kV Lines #72 and #53 to current standards with a minimum summer emergency rating of 393 MVA. The resulting summer emergency rating of Line #72 segment from Brown Boveri to Bellwood is 180 MVA. There is no change to Line #53 ratings	Dominion (100%)
b3114	Rebuild the 18.6 mile section of 115 kV Line #81 which includes 1.7 miles of double circuit Line #81 and 230 kV Line #2056. This segment of Line #81 will be rebuilt to current standards with a minimum rating of 261 MVA. Line #2056 rating will not change	Dominion (100%)
b3121	Rebuild Clubhouse – Lakeview 230 kV Line #254 with single-circuit wood pole equivalent structures at the current 230 kV standard with a minimum rating of 1047 MVA	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3122	Rebuild Hathaway – Rocky Mount (Duke Energy Progress) 230 kV Line #2181 and Line #2058 with double circuit steel structures using double circuit conductor at current 230 kV standards with a minimum rating of 1047 MVA	Dominion (100%)
b3161.1	Split Chesterfield-Plaza 115 kV Line No. 72 by rebuilding the Brown Boveri tap line as double circuit loop in-and-out of the Brown Boveri Breaker station	Dominion (100%)
b3161.2	Install a 115 kV breaker at the Brown Boveri Breaker station. Site expansion is required to accommodate the new layout	Dominion (100%)
b3162	Acquire land and build a new 230 kV switching station (Stevensburg) with a 224 MVA, 230/115 kV transformer. Gordonsville-Remington 230 kV Line No. 2199 will be cut and connected to the new station. Remington-Mt. Run 115 kV Line No.70 and Mt. Run-Oak Green 115 kV Line No. 2 will also be cut and connected to the new station	Dominion (100%)
b3211	Rebuild the 1.3 mile section of 500 kV Line No. 569 (Loudoun – Morrisville) with single-circuit 500 kV structures at the current 500 kV standard. This will increase the rating of the line to 3424 MVA	Dominion (100%)
b3213	Install 2nd Chickahominy 500/230 kV transformer	Dominion (100%)
b3213.1	Replace the eight (8) Chickahominy 230 kV breakers with 63 kA breakers: “SC122”, “205022”, “209122”, 210222-2”, “28722”, “H222”, “21922” and “287T2129”	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b3223.1	Install a second 230 kV circuit with a minimum summer emergency rating of 1047 MVA between Lanexa and Northern Next substations. The second circuit will utilize the vacant arms on the double-circuit structures that are being installed on Line #224 (Lanexa – Northern Next) as part of the End-of-Life rebuild project (b3089)		Dominion (100%)
b3223.2	Expand the Northern Neck terminal from a 230 kV, 4-breaker ring bus to a 6-breaker ring bus		Dominion (100%)
b3223.3	Expand the Lanexa terminal from a 6-breaker ring bus to a breaker-and-a-half arrangement		Dominion (100%)
b3246.1	Convert 115 kV Line #172 Liberty – Lomar and 115 kV Line #197 Cannon Branch – Lomar to 230 kV to provide a new 230 kV source between Cannon Branch and Liberty. The majority of 115 kV Line #172 Liberty – Lomar and Line #197 Cannon Branch – Lomar is adequate for 230 kV operation. Rebuild 0.36 mile segment between the Lomar and Cannon Branch junction. Lines will have a summer rating of 1047MVA/1047MVA (SN/SE)		Dominion (100%)
b3246.2	Perform substation work for the 115 kV to 230 kV line conversion at Liberty, Wellington, Godwin, Pioneer, Sandlot and Cannon Branch		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3246.3	Extend 230 kV Line #2011 Cannon Branch – Clifton to Winters Branch by removing the existing Line #2011 termination at Cannon Branch and extending the line to Brickyard creating 230 kV Line #2011 Brickyard - Clifton. Extend a new 230 kV line between Brickyard and Winters Branch with a summer rating of 1572MVA/1572MVA (SN/SE)	Dominion (100%)
b3246.4	Perform substation work at Cannon Branch, Brickyard and Winters Branch for the 230 kV Line #2011 Cannon Branch – Clifton extension	Dominion (100%)
b3246.5	Replace the Gainesville 230 kV 40 kA breaker “216192” with a 50 kA breaker	Dominion (100%)
b3247	Replace 13 towers with galvanized steel towers on Doubs – Goose Creek 500 kV. Reconductor 3 mile section with three (3) 1351.5 ACSR 45/7. Upgrade line terminal equipment at Goose Creek substation to support the 500 kV line rebuild	Load-Ratio Share Allocation: AEC (1.71 1.67%) / AEP (14.04 13.94%) / APS (5.61 5.64%) / ATSI (8.10 8.02%) / BGE (4.36 4.12%) / ComEd (13.14 13.46%) / Dayton (2.15 2.12%) / DEOK (3.23 3.37%) / DL (1.73 1.76%) / DPL (2.65 2.55%) / Dominion (13.03 12.97%) / EKPC (1.77 1.81%) / JCPL (3.84 3.92%) / ME (1.93 1.95%) / NEPTUNE* (0.45 0.24%) / OVEC (0.07%) / PECO (5.29 5.39%) / PENELEC (1.89 1.84%) / PEPSCO (3.82 3.71%) / PPL (4.72 4.78%) / PSEG (6.21 6.40%) / RE (0.26 0.27%) DFAX Allocation: Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b3262	Install a second 115 kV 33.67 MVAR cap bank at Harrisonburg substation along with a 115 kV breaker		Dominion (100%)
b3263	Cut existing 115 kV Line #5 between Bremo and Cunningham substations and loop in and out of Fork Union substation		Dominion (100%)
b3264	Install 40 kA breaker at Stuarts Draft 115 kV station and sectionalize the Doom to Dupont-Waynesboro 115 kV Line #117 into two 115 kV lines		Dominion (100%)
b3268	Build a switching station at the junction of 115 kV line #39 and 115 kV line #91 with a 115 kV capacitor bank. The switching station will be built with 230 kV structures but will operate at 115 kV		Dominion (100%)
b3300	Reconductor 230 kV Line #2172 from Brambleton to Evergreen Mills along with upgrading the line leads at Brambleton to achieve a summer emergency rating of 1574 MVA		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3301	Reconductor 230 kV Line #2210 from Brambleton to Evergreen Mills along with upgrading the line leads at Brambleton to achieve a summer emergency rating of 1574 MVA		Dominion (100%)
b3302	Reconductor 230 kV Line #2213 from Cabin Run to Yardley Ridge along with upgrading the line leads at Yardley to achieve a summer emergency rating of 1574 MVA		Dominion (100%)
b3303.1	Extend a new single circuit 230 kV Line #9250 from Farmwell substation to Nimbus substation		Dominion (100%)
b3303.2	Remove Beaumeade 230 kV Line #2152 line switch		Dominion (100%)
b3304	Midlothian area improvements for 300 MW load drop relief		Dominion (100%)
b3304.1	Cut 230 kV Line #2066 at Trabue junction		Dominion (100%)
b3304.2	Reconductor idle 230 kV Line #242 (radial from Midlothian to Trabue junction) to allow a minimum summer rating of 1047 MVA and connect to the section of 230 kV Line #2066 between Trabue junction and Winterpock, re-number 230 kV Line #242 structures to Line #2066		Dominion (100%)
b3304.3	Use the section of idle 115 kV Line #153, between Midlothian and Trabue junction to connect to the section of (former) 230 kV Line #2066 between Trabue junction and Trabue to create new Midlothian – Trabue lines with new line numbers #2218 and #2219		Dominion (100%)
b3304.4	Create new line terminations at Midlothian for the new Midlothian – Trabue 230 kV lines		Dominion (100%)

SCHEDULE 12 – APPENDIX A

(23) American Transmission Systems, Inc.

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2019.2 Terminate Burger – Longview 138 kV, Burger – Brookside 138 kV, Burger – Cloverdale 138 kV #1, and Burger – Harmon 138 kV #2 into Holloway substation; Loop Burger – Harmon #1 138 kV and Burger – Knox 138 kV into Holloway substation		ATSI (100%)
b2019.3 Reconfigure Burger 138 kV substation to accommodate two 138 kV line exits and generation facilities		ATSI (100%)
b2019.4 Remove both Burger 138 kV substations (East and West 138 kV buses) and all 138 kV lines on the property		ATSI (100%)
b2019.5 Terminate and de-energize the 138 kV lines on the last structure before the Burger Plant property		ATSI (100%)
b2122.1 Reconductor the ATSI portion of the Howard – Brookside 138 kV line		ATSI (100%)
b2122.2 Upgrade terminal equipment at Brookside on the Howard – Brookside 138 kV line to achieve ratings of 252/291 (SN/SE)		ATSI (100%)
b2188 Revise the reclosing for the Bluebell 138 kV breaker '301-B-94'		ATSI (100%)
b2192 Replace the Longview 138 kV breaker '651-B-32'		ATSI (100%)
b2193 Replace the Lowellville 138 kV breaker '1-10-B 4'		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2195	Replace the Roberts 138 kV breaker '601-B-60'		ATSI (100%)
b2196	Replace the Sammis 138 kV breaker '780-B-76'		ATSI (100%)
b2262	New Castle Generating Station – Relocate 138 kV, 69 kV, and 23 kV controls from the generating station building to new control building		ATSI (100%)
b2263	Niles Generation Station – Relocate 138 kV and 23 kV controls from the generation station building to new control building		ATSI (100%)
b2265	Ashtabula Generating Station – Relocate 138 kV controls from the generating station building to new control building		ATSI (100%)
b2284	Increase the design operating temperature on the Cloverdale – Barberton 138 kV line		ATSI (100%)
b2285	Increase the design operating temperature on the Cloverdale – Star 138 kV line		ATSI (100%)
b2301	Reconductor 0.7 miles of 605 ACSR conductor on the Beaver Black River 138 kV line		ATSI (100%)
b2301.1	Wave trap and line drop replacement at Beaver (312/380 MVA SN/SE)		ATSI (100%)
b2349	Replace the East Springfield 138 kV breaker 211-B-63 with 40 kA		ATSI (100%)
b2367	Replace the East Akron 138 kV breaker 36-B-46 with 40 kA		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2413	Replace a relay at McDowell 138 kV substation		ATSI (100%)
b2434	Build a new London – Tangy 138 kV line		ATSI (100%)
b2435	Build a new East Springfield – London #2 138 kV line		Dayton <u>ATSI</u> (100%)
b2459	Install +260/-150 MVAR SVC at Lake Shore		ATSI (100%)
b2492	Replace the Beaver 138 kV breaker '426-B-2' with 63 kA breaker		ATSI (100%)
b2493	Replace the Hoytdale 138 kV breaker '83-B-30' with 63 kA breaker		ATSI (100%)
b2557	At Avon substation, replace the existing 345/138 kV 448 MVA #92 transformer with a 560 MVA unit		ATSI (100%)
b2558	Close normally open switch A 13404 to create a Richland J Bus – Richland K Bus 138 kV line		ATSI (100%)
b2559	Reconductor the Black River – Lorain 138 kV line and upgrade Black River and Lorain substation terminal end equipment		ATSI (100%)
b2560	Construct a second 138 kV line between West Fremont and Hayes substation on open tower position of the West Fremont –Groton –Hayes 138 kV line		ATSI (100%)
b2616	Addition of 4th 345/138 kV transformer at Harding		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2673	Rebuild the existing double circuit tower line section from Beaver substation to Brownhelm Jct. approx. 2.8 miles	ATSI (100%)
b2674	Rebuild the 6.6 miles of Evergreen to Ivanhoe 138 kV circuit with 477 ACSS conductor	ATSI (100%)
b2675	Install 26.4 MVAR capacitor and associated terminal equipment at Lincoln Park 138 kV substation	ATSI (100%)
b2725	Build new 345/138 kV Lake Avenue substation w/ breaker and a half high side (2 strings), 2-345/138 kV transformers and breaker and a half (2 strings) low side (138 kV). Substation will tie Avon – Beaver 345 kV #1/#2 and Black River – Johnson #1/#2 lines	ATSI (100%)
b2725.1	Replace the Murray 138 kV breaker '453-B-4' with 40 kA breaker	ATSI (100%)
b2742	Replace the Hoytdale 138 kV '83-B-26' and '83-B-30' breakers with 63 kA breakers	ATSI (100%)
b2753.4	Double capacity for 6 wire "Burger-Cloverdale No. 2" 138 kV line and connect at Holloway and "Point A"	ATSI (100%)
b2753.5	Double capacity for 6 wire "Burger-Longview" 138 kV line and connect at Holloway and "Point A"	ATSI (100%)
b2778	Add 2nd 345/138 kV transformer at Chamberlin substation	ATSI (100%)
b2780	Replace Bruce Mansfield 345 kV breaker 'B57' with an 80 kA breaker, and associated gang-operated disconnect switches D56 and D58	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2869	Replace the Crossland 138 kV breaker "B-16" with a 40 kA breaker		ATSI (100%)
b2875	Relocate the Richland to Ridgeville 138 kV line from Richland J bus to K, extend the K bus and install a new breaker		ATSI (100%)
b2896	Rebuild/Reconductor the Black River – Lorain 138 kV circuit		ATSI (100%)
b2897	Reconductor the Avon – Lorain 138 kV section and upgrade line drop at Avon		ATSI (100%)
b2898	Reconductor the Beaver – Black River 138 kV with 954 Kcmil ACSS conductor and upgrade terminal equipment on both stations		ATSI (100%)
b2942.1	Install a 100 MVAR 345 kV shunt reactor at Hayes substation		ATSI (100%)
b2942.2	Install a 200 MVAR 345 kV shunt reactor at Bayshore substation		ATSI (100%)
b2972	Reconductor limiting span of Lallendorf – Monroe 345 kV		MISO (11.00%) / AEP (5.38%) / APS (4.27%) / ATSI (66.48%) / Dayton (2.71%) / Dominion (5.31%) / DL (4.85%)
b3031	Transfer load off of the Leroy Center - Mayfield Q2 138 kV line by reconfiguring the Pawnee substation primary source, via the existing switches, from the Leroy Center - Mayfield Q2 138 kV line to the Leroy Center - Mayfield Q1 138 kV line		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3032	Greenfield - NASA 138 kV terminal upgrades: NASA substation, Greenfield exit: Revise CT tap on breaker B22 and adjust line relay settings; Greenfield substation, NASA exit: Revise CT tap on breaker B1 and adjust line relay settings; replace 336.4 ACSR line drop with 1033.5 AL	ATSI (100%)
b3033	Ottawa – Lakeview 138 kV reconductor and substation upgrades	ATSI (100%)
b3034	Lakeview – Greenfield 138 kV reconductor and substation upgrades	ATSI (100%).
b3066	Reconductor the Cranberry – Jackson 138 kV line (2.1 miles), reconductor 138 kV bus at Cranberry bus and replace 138 kV line switches at Jackson bus	ATSI (100%)
b3067	Reconductor the Jackson – Maple 138 kV line (4.7 miles), replace line switches at Jackson 138 kV and replace the line traps and relays at Maple 138 kV bus	ATSI (100%)
b3080	Reconductor the 138 kV bus at Seneca	ATSI (100%)
b3081	Replace the 138 kV breaker and reconductor the 138 kV bus at Krendale	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3123	At Sammis 345 kV station: Install a new control building in the switchyard, construct a new station access road, install new switchyard power supply to separate from existing generating station power service, separate all communications circuits, and separate all protection and controls schemes	ATSI (100%)
b3124	Separate metering, station power, and communication at Bruce Mansfield 345 kV station	ATSI (100%)
b3127	At Bay Shore 138 kV station: Install new switchyard power supply to separate from existing generating station power service, separate all communications circuits, and construct a new station access road	ATSI (100%)
b3152	Reconductor the 8.4 mile section of the Leroy Center – Mayfield Q1 line between Leroy Center and Pawnee Tap to achieve a rating of at least 160 MVA / 192 MVA (SN/SE)	ATSI (100%)
b3234	Extend both the east and west 138 kV buses at Pine substation, and install one (1) 138 kV breaker, associated disconnect switches, and one (1) 100 MVAR reactor	ATSI (100%)
b3235	Extend 138 kV bus work to the west of Tangy substation for the addition of the 100 MVAR reactor bay and one (1) 138 kV 40 kA circuit breaker	ATSI (100%)
b3236	Extend the Broadview 138 kV bus by adding two (2) new breakers and associated equipment and install a 75 MVAR reactor	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3260	Replace the existing breaker 501-B-251 with a new 69 kV breaker with a higher (40 kA) interrupting capability		ATSI (100%)
b3277	Replace the existing East Akron 138 kV breaker 'B-22' with 3000A continuous, 40 kA momentary current interrupting rating circuit breaker		ATSI (100%)

SCHEDULE 12 – APPENDIX A

(24) Duke Energy Ohio and Duke Energy Kentucky

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2278 Revising the reclosing of Charles 138 kV breaker '919' to 15 sec		DEOK (100%)
b2451 Replace the Charles 138 kV breaker '919' with 63 kA		DEOK (100%)
b2564 Add two breakers at Miami Fort 138 kV; Interim solution to violation driven by Beckjord GTs deactivations is to lower generation at Miami Fort to 120 MW		DEOK (100%)
b2634 Convert Miami Fort 345 kV substation to a ring bus terminating Feeder 4504, TB 9 and TB 10 in separate ring positions		DEOK (100%)
b2828 Install 5% reactors at Miami Fort 138 kV to limit current		DEOK (100%)
b2829 Reconductor feeder from Port Union to East Provident 138 kV line for 300MVA		DEOK (100%)
b2830 Expand Garver 345 kV substation to include 138 kV. Install 1-345 kV breaker, 1-345/138 kV 400 MVA transformer, 6-138 kV Breakers and bus work. Connect local 138 kV circuits from Todhunter, Rockies Express, and Union		DEOK (100%)
b2831.2 Upgrade the Tanner Creek - Miami Fort 345 kV circuit (DEOK portion)		DFAX Allocation: Dayton (61.71 <u>99.99</u> %) / DEOK-EKPC (37.680.01%) / OVEC (0.61%)
b2894 Replace Todhunter 138 kV breakers '931', '919', and '913' with 80 kA breakers		DEOK (100%)

Duke Energy Ohio and Duke Energy Kentucky (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2895	Replace Dicks Creek 138 kV breaker '963' with 63 kA breaker	DEOK (100%)
b2901	Reconductor the Port Union – Mulhauser 138 kV line with 954 ASCR bringing the summer ratings to A/B/C=300/300/300 MVA	DEOK (100%)
b2977	Portion of 2017 1-6A	DEOK (100%)
b2977.1	Install a new 345 kV breaker “1422” so Pierce 345/138 kV transformer #18 is now fed in a double breaker, double bus configuration	DEOK (100%)
b2977.2	Remove X-533 No. 2 to the first tower outside the station. Install a new first tower for X-533 No. 2	DEOK (100%)
b2977.3	Install a new 345 kV breaker B and move the Buffington – Pierce 345 kV feeder to the B-C junction. Install a new tower at the first tower outside the station for Buffington – Pierce 345 kV line	DEOK (100%)
b2977.4	Remove breaker A and move the Pierce 345/138 kV transformer #17 feed to the C-D junction	DEOK (100%)
b2977.5	Replace breaker 822 at Beckjord 138 kV substation to increase the rating from Pierce to Beckjord 138 kV to 603 MVA	DEOK (100%)
b3048	Replace 138 kV breakers 937, 941 and 945 at Todhunter station	DEOK (100%)
b3050	Install redundant relay to Port Union 138 kV Bus #2	DEOK (100%)

Attachment B

Schedule 12 – Appendices of the
PJM Open Access Transmission Tariff

(Clean Format)

SCHEDULE 12 – APPENDIX

(1) Atlantic City Electric Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0135	Build new Cumberland – Dennis 230 kV circuit which replaces existing Cumberland – Corson 138 kV	AEC (100%)
b0136	Install Dennis 230/138 kV transformer, Dennis 150 MVAR SVC and 50 MVAR capacitor	AEC (100%)
b0137	Build new Dennis – Corson 138 kV circuit	AEC (100%)
b0138	Install Cardiff 230/138 kV transformer and a 50 MVAR capacitor at Cardiff	AEC (100%)
b0139	Build new Cardiff – Lewis 138 kV circuit	AEC (100%)
b0140	Reconductor Laurel – Woodstown 69 kV	AEC (100%)
b0141	Reconductor Monroe – North Central 69 kV	AEC (100%)
b0265	Upgrade AE portion of Delco Tap – Mickleton 230 kV circuit	AEC (89.87%) / JCPL (9.48%) / NEPTUNE* (0.65%)
b0276	Replace both Monroe 230/69 kV transformers	AEC (91.28%) / PSEG (8.29%) / RE (0.23%) / ECP** (0.20%)
b0276.1	Upgrade a strand bus at Monroe to increase the rating of transformer #2	AEC (100%)
b0277	Install a second Cumberland 230/138 kV transformer	AEC (100%)
b0281.1	Install 35 MVAR capacitor at Lake Ave 69 kV substation	AEC (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Atlantic City Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0281.2	Install 15 MVAR capacitor at Shipbottom 69 kV substation	AEC (100%)
b0281.3	Install 8 MVAR capacitors on the AE distribution system	AEC (100%)
b0142	Reconductor Landis – Minotola 138 kV	AEC (100%)
b0143	Reconductor Beckett – Paulsboro 69 kV	AEC (100%)
b0210	Install a new 500/230 kV substation in AEC area. The high side will be tapped on the Salem - East Windsor 500 kV circuit and the low side will be tapped on the Churchtown - Cumberland 230 kV circuit.	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (78.34%) / JCPL (21.66%)
b0210.1	Orchard – Cumberland – Install second 230 kV line	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)††
b0210.2	Install a new 500/230 kV substation in AEC area, the high side will be tapped on the Salem - East Windsor 500 kV circuit and the low side will be tapped on the Churchtown - Cumberland 230 kV circuit.	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)††

* Neptune Regional Transmission System, LLC

†† Cost allocations associated with below 500 kV elements of the project

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-1.

Atlantic City Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0211	Reconductor Union - Corson 138 kV circuit	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)
b0212	Substation upgrades at Union and Corson 138 kV	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)
b0214	Install 50 MVAR capacitor at Cardiff 230 kV substation	AEC (100%)
b0431	Monroe Upgrade New Freedom strand bus	AEC (100%)
b0576	Move the Monroe 230/69 kV to Mickleton	AEC (100%)
b0744	Upgrade a strand bus at Mill 138 kV	AEC (100%)
b0871	Install 35 MVAR capacitor at Motts Farm 69 kV	AEC (100%)
b1072	Modify the existing EMS load shedding scheme at Cedar to additionally sense the loss of both Cedar 230/69 kV transformers and shed load accordingly	AEC (100%)
b1127	Build a new Lincoln-Minitola 138 kV line	AEC (100%)
b1195.1	Upgrade the Corson sub T2 terminal	AEC (100%)
b1195.2	Upgrade the Corson sub T1 terminal	AEC (100%)

* Neptune Regional Transmission System, LLC

Atlantic City Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1244	Install 10 MVAR capacitor at Peermont 69 kV substation	AEC (100%)
b1245	Rebuild the Newport-South Millville 69 kV line	AEC (100%)
b1250	Reconductor the Monroe – Glassboro 69 kV	AEC (100%)
b1250.1	Upgrade substation equipment at Glassboro	AEC (100%)
b1280	Sherman: Upgrade 138/69 kV transformers	AEC (100%)
b1396	Replace Lewis 138 kV breaker ‘L’	AEC (100%)
b1398.5	Reconductor the existing Mickleton – Gloucester 230 kV circuit (AE portion)	JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1598	Reconductor Sherman Av – Carl’s Corner 69 kV circuit	AEC (100%)
b1599	Replace terminal equipments at Central North 69 kV substation	AEC (100%)
b1600	Upgrade the Mill T2 138/69 kV transformer	AEC (88.83%) / JCPL (4.74%) / HTP*** (0.20%) / ECP** (0.22%) / PSEG (5.78%) / RE (0.23%)
b2157	Re-build 5.3 miles of the Corson - Tuckahoe 69 kV circuit	AEC (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-1.

SCHEDULE 12 – APPENDIX

(2) Baltimore Gas and Electric Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0152	Add (2) 230 kV Breakers at High Ridge and install two Northwest 230 kV 120 MVAR capacitors	BGE (100%)
b0244	Install a 4 th Waugh Chapel 500/230 kV transformer, terminate the transformer in a new 500 kV bay and operate the existing in-service spare transformer on standby	BGE (85.56%) / ME (0.83%) / PEPSCO (13.61%)
b0298	Replace both Conastone 500/230 kV transformers with larger transformers	As specified in Attachment H-2A, Attachment 7, the Transmission Enhancement Charge Worksheet
b0298.1	Replace Conastone 230 kV breaker 500-3/2323	BGE (75.85%) / Dominion (11.54%) / ME (4.73%) / PEPSCO (7.88%)
b0474	Add a fourth 230/115 kV transformer, two 230 kV circuit breakers and a 115 kV breaker at Waugh Chapel	BGE (100%)
b0475	Create two 230 kV ring buses at North West, add two 230/115 kV transformers at North West and create a new 115 kV station at North West	BGE (100%)
b0476	Rebuild High Ridge 230 kV substation to Breaker and Half configuration	BGE (100%)
b0477	Replace the Waugh Chapel 500/230 kV transformer #1 with three single phase transformers	BGE (90.56%) / ME (1.51%) / PECO (.92%) / PEPSCO (4.01%) / PPL (3.00%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0497	Install a second Conastone – Graceton 230 kV circuit	AEC (9.00%) / DPL (16.85%) / JCPL (9.64%) / ME (1.48%) / NEPTUNE* (0.95%) / PECO (30.79%) / PPL (16.41%) / ECP** (0.29%) / PSEG (14.07%) / RE (0.52%)
b0497.1	Replace Conastone 230 kV breaker #4	BGE (100%)
b0497.2	Replace Conastone 230 kV breaker #7	BGE (100%)
b0500.2	Replace wavetrap and raise operating temperature on Conastone – Otter Creek 230 kV line to 165 deg	AEC (6.27%) / DPL (8.65 %) / JCPL (14.54%) / ME (10.59%) / NEPTUNE* (1.37%) / PECO (15.66%) / PPL (21.02%) / ECP** (0.57%) / PSEG (20.56%) / RE (0.77%)
b0512.33	MAPP Project Install new Hallowing Point – Calvert Cliffs 500 kV circuit and associated substation work at Calvert Cliffs substation	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.43	MAPP Project Install new Hallowing Point – Calvert Cliffs 500 kV circuit and associated substation work at Calvert Cliffs substation	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0729	Rebuild both Harford – Perryman 110615-A and 110616-A 115 kV circuits	BGE (100%)
b0749	Replace 230 kV breaker and associated CT's at Riverside 230 kV on 2345 line; replace all dead-end structures at Brandon Shores, Hawkins Point, Sollers Point and Riverside; Install a second conductor per phase on the spans entering each station	BGE (100%)

* Neptune Regional Transmission System, LLC

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0795	Install a 115 kV breaker at Chesaco Park		BGE (100%)
b0796	Install 2, 115 kV breakers at Gwynnbrook		BGE (100%)
b0819	Remove line drop limitations at the substation terminations for Gwynnbrook – Mays Chapel 115 kV		BGE (100%)
b0820	Remove line drop limitations at the substation terminations and replace switch for Delight – Gwynnbrook 115 kV		BGE (100%)
b0821	Remove line drop limitations at the substation terminations for Northwest – Delight 115 kV		BGE (100%)
b0822	Remove line drop limitations at the substation terminations for Gwynnbrook – Sudbrook 115 kV		BGE (100%)
b0823	Remove line drop limitations at the substation terminations for Windy Edge – Texas 115 kV		BGE (100%)
b0824	Remove line drop limitations at the substation terminations for Granite – Harrisonville 115 kV		BGE (100%)
b0825	Remove line drop limitations at the substation terminations for Harrison – Dolefield 115 kV		BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0826	Remove line drop limitations at the substation terminations for Riverside – East Point 115 kV		BGE (100%)
b0827	Install an SPS for one year to trip a Mays Chapel 115 kV breaker one line 110579 for line overloads 110509		BGE (100%)
b0828	Disable the HS throwover at Harrisonville for one year		BGE (100%)
b0870	Rebuild each line (0.2 miles each) to increase the normal rating to 968 MVA and the emergency rating to 1227 MVA		BGE (100%)
b0906	Increase contact parting time on Wagner 115 kV breaker 32-3/2		BGE (100%)
b0907	Increase contact parting time on Wagner 115 kV breaker 34-1/3		BGE (100%)
b1016	Rebuild Graceton - Bagley 230 kV as double circuit line using 1590 ACSR. Terminate new line at Graceton with a new circuit breaker		APS (2.02%) / BGE (75.22%) / Dominion (16.10%) / PEPCO (6.66%)
b1055	Upgrade wire drops at Center 115 kV on the Center - Westport 115 kV circuit		BGE (100%)
b1029	Upgrade wire sections at Wagner on both 110534 and 110535 115 kV circuits. Reconfigure Lipins Corner substation		BGE (100%)

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-2.

Baltimore Gas and Electric Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1030	Move the Hillen Rd substation from circuits 110507/110508 to circuits 110505/110506		BGE (100%)
b1031	Replace wire sections on Westport - Pumphrey 115 kV circuits #110521, 110524, 110525, and 110526		BGE (100%)
b1083	Upgrade wire sections of the Mays Chapel – Mt Washington circuits (110701 and 110703) to improve the rating to 260/300 SN/SE MVA		BGE (100%)
b1084	Extend circuit 110570 from Deer Park to Northwest, and retire the section of circuit 110560 from Deer Park to Deer Park tap and retire existing Deer Park Breaker		BGE (100%)
b1085	Upgrade substation wire conductors at Lipins Corner to improve the rating of Solley-Lipins Corner sections of circuits 110534 and 110535 to 275/311 MVA SN/SE		BGE (100%)
b1086	Build a new 115 kV switching station between Orchard St. and Monument St.		BGE (100%)
b1175	Apply SPS at Mt. Washington to delay load pick-up for one outage and for the other outage temporarily drop load		BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1176	Transfer 6 MW of load from Mt. Washington – East Towson	BGE (100%)
b1251	Build a second Raphael – Bagley 230 kV	APS (4.42%) / BGE (66.95%) / ComEd (4.12%) / Dayton (0.49%) / Dominion (18.76%) / PENELEC (0.05%) / PEPCO (5.21%)
b1251.1	Re-build the existing Raphael – Bagley 230 kV	APS (4.42%) / BGE (66.95%) / ComEd (4.12%) / Dayton (0.49%) / Dominion (18.76%) / PENELEC (0.05%) / PEPCO (5.21%)
b1252	Upgrade terminal equipment (remove terminal limitation at Pumphrey Tap to bring the circuit to 790N/941E	BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1253	Replace the existing Northeast 230/115 kV transformer #3 with 500 MVA		BGE (100%)
b1253.1	Replace the Northeast 230 kV breaker '2317/315'		BGE (100%)
b1253.2	Revise reclosing on Windy Edge 115 kV breaker '110515'		BGE (100%)
b1253.3	Revise reclosing on Windy Edge 115 kV breaker '110516'		BGE (100%)
b1253.4	Revise reclosing on Windy Edge 115 kV breaker '110517'		BGE (100%)
b1254	Build a new 500/230 kV substation (Emory Grove)		APS (4.07%) / BGE (53.19%) / ComEd (3.71%) / Dayton (0.50%) / Dominion (16.44%) / PENELEC (0.59%) / PEPCO (21.50%)
b1254.1	Bundle the Emory – North West 230 kV circuits		BGE (100%)
b1267	Rebuild existing Erdman 115 kV substation to a dual ring-bus configuration to enable termination of new circuits		BGE (100%)
b1267.1	Construct 115 kV double circuit underground line from existing Coldspring to Erdman substation		BGE (100%)
b1267.2	Replace Mays Chapel 115 kV breaker '110515A'		BGE (100%)
b1267.3	Replace Mays Chapel 115 kV breaker '110579C'		BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1544	Advance the baseline upgrade B1252 to upgrade terminal equipment removing terminal limitation at Pumphrey Tap on BGE 230 kV circuit 2332-A	BGE (100%)
b1545	Upgrade terminal equipment at both Brandon Shores and Waugh Chapel removing terminal limitation on BGE 230 kV circuit 2343	BGE (100%)
b1546	Upgrade terminal equipment at Graceton removing terminal limitation on BGE portion of the 230 kV Graceton – Cooper circuit 2343	BGE (100%)
b1583	Replace Hazelwood 115 kV breaker '110602'	BGE (100%)
b1584	Replace Hazelwood 115 kV breaker '110604'	BGE (100%)
b1606.1	Moving the station supply connections of the Hazelwood 115/13 kV station	BGE (100%)
b1606.2	Installing 115 kV tie breakers at Melvale	BGE (100%)
b1785	Revise the reclosing for Pumphrey 115 kV breaker '110521 DR'	BGE (100%)
b1786	Revise the reclosing for Pumphrey 115 kV breaker '110526 DR'	BGE (100%)
b1789	Revise the reclosing for Pumphrey 115 kV breaker '110524DR'	BGE (100%)
b1806	Rebuild Wagner 115 kV substation to 80 kA	BGE (100%)

SCHEDULE 12 – APPENDIX

(3) Delmarva Power & Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0144.1	Build new Red Lion – Milford – Indian River 230 kV circuit	DPL (100%)
b0144.2	Indian River Sub – 230 kV Terminal Position	DPL (100%)
b0144.3	Red Lion Sub – 230 kV Terminal Position	DPL (100%)
b0144.4	Milford Sub – (2) 230 kV Terminal Positions	DPL (100%)
b0144.5	Indian River – 138 kV Transmission Line to AT-20	DPL (100%)
b0144.6	Indian River – 138 & 69 kV Transmission Ckts. Undergrounding	DPL (100%)
b0144.7	Indian River – (2) 230 kV bus ties	DPL (100%)
b0148	Re-rate Glasgow – Mt. Pleasant 138 kV and North Seaford – South Harrington 138 kV	DPL (100%)
b0149	Complete structure work to increase rating of Cheswold – Jones REA 138 kV	DPL (100%)
b0221	Replace disconnect switch on Edgewood-N. Salisbury 69 kV	DPL (100%)
b0241.1	Keeny Sub – Replace overstressed breakers	DPL (100%)
b0241.2	Edgemoor Sub – Replace overstressed breakers	DPL (100%)
b0241.3	Red Lion Sub – Substation reconfigure to provide for second Red Lion 500/230 kV transformer	DPL (84.5%) / PECO (15.5%)
b0261	Replace 1200 Amp disconnect switch on the Red Lion – Reybold 138 kV circuit	DPL (100%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0262	Reconductor 0.5 miles of Christiana – Edgemoor 138 kV		DPL (100%)
b0263	Replace 1200 Amp wavetrapp at Indian River on the Indian River – Frankford 138 kV line		DPL (100%)
b0272.1	Replace line trap and disconnect switch at Keeney 500 kV substation – 5025 Line Terminal Upgrade		<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (17.53%) / BGE (1.84%) / DPL (43.46%) / PECO (18.79%) / PEPCO (1.52%) / PPL (13.73%) / PSEG (3.01%) / RE (0.12%)</p>
b0282	Install 46 MVAR capacitors on the DPL distribution system		DPL (100%)
b0291	Replace 1600A disconnect switch at Harmony 230 kV and for the Harmony – Edgemoor 230 kV circuit, increase the operating temperature of the conductor		DPL (100%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0295	Raise conductor temperature of North Seaford – Pine Street – Dupont Seaford	DPL (100%)
b0296	Rehoboth/Cedar Neck Tap (6733-2) upgrade	DPL (100%)
b0320	Create a new 230 kV station that splits the 2 nd Milford to Indian River 230 kV line, add a 230/69 kV transformer, and run a new 69 kV line down to Harbeson 69 kV	DPL (100%)
b0382	Cambridge Sub – Close through to Todd Substation	DPL (100%)
b0383	Wye Mills AT-1 and AT-2 138/69 kV Replacements	DPL (100%)
b0384	Replace Indian River AT-20 (400 MVA)	DPL (100%)
b0385	Oak Hall to New Church (13765) Upgrade	DPL (100%)
b0386	Cheswold/Kent (6768) Rebuild	DPL (100%)
b0387	N. Seaford – Add a 2 nd 138/69 kV autotransformer	DPL (100%)
b0388	Hallwood/Parksley (6790-2) Upgrade	DPL (100%)
b0389	Indian River AT-1 and AT-2 138/69 kV Replacements	DPL (100%)
b0390	Rehoboth/Lewes (6751-1 and 6751-2) Upgrade	DPL (100%)
b0391	Kent/New Meredith (6704-2) Upgrade	DPL (100%)
b0392	East New Market Sub – Establish a 69 kV Bus Arrangement	DPL (100%)
b0415	Increase the temperature ratings of the Edgemoor – Christiana – New Castle 138 kV by replacing six transmission poles	DPL (100%)

Delmarva Power & Light Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0437	Spare Keeney 500/230 kV transformer		DPL (100%)
b0441	Additional spare Keeney 500/230 kV transformer		DPL (100%)
b0480	Rebuild Lank – Five Points 69 kV		DPL (100%)
b0481	Replace wave trap at Indian River 138 kV on the Omar – Indian River 138 kV circuit		DPL (100%)
b0482	Rebuild Millsboro – Zoar REA 69 kV		DPL (100%)
b0483	Replace Church 138/69 kV transformer and add two breakers		DPL (100%)
b0483.1	Build Oak Hall – Wattsville 138 kV line		DPL (100%)
b0483.2	Add 138/69 kV transformer at Wattsville		DPL (100%)
b0483.3	Establish 138 kV bus position at Oak Hall		DPL (100%)
b0484	Re-tension Worcester – Berlin 69 kV for 125°C		DPL (100%)
b0485	Re-tension Taylor – North Seaford 69 kV for 125°C		DPL (100%)
b0494.1	Install a 2 nd Red Lion 230/138 kV		DPL (100%)
b0494.2	Hares Corner – Relay Improvement		DPL (100%)
b0494.3	Reybold – Relay Improvement		DPL (100%)
b0494.4	New Castle – Relay Improvement		DPL (100%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0513	Rebuild the Ocean Bay – Maridel 69 kV line	DPL (100%)
b0527	Replace existing 12 MVAR capacitor at Bethany with a 30 MVAR capacitor	DPL (100%)
b0528	Replace existing 69/12 kV transformer at Bethany with a 138/12 kV transformer	DPL (100%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0529	Install an additional 8.4 MVAR capacitor at Grasonville 69 kV	DPL (100%)
b0530	Replace existing 12 MVAR capacitor at Wye Mills with a 30 MVAR capacitor	DPL (100%)
b0531	Create a four breaker 138 kV ring bus at Wye Mills and add a second 138/69 kV transformer	DPL (100%)
b0566	Rebuild the Trappe Tap – Todd 69 kV line	DPL (100%)
b0567	Rebuild the Mt. Pleasant – Townsend 138 kV line	DPL (100%)
b0568	Install a third Indian River 230/138 kV transformer	DPL (100%)
b0725	Add a third Steele 230/138 kV transformer	DPL (100%)
b0732	Rebuild Vaugh – Wells 69 kV	DPL (100%)
b0733	Add a second 230/138 kV transformer at Harmony	DPL (97.06%) / PECO (2.94%)
b0734	Rebuild Church – Steele 138 kV	DPL (100%)
b0735	Rebuild Indian River – Omar – Bethany 138 kV	DPL (100%)
b0736	Rebuild Dupont Edgemoor – Edgemoor – Silverside 69 kV	DPL (69.46%) / PECO (17.25%) / ECP** (0.27%) / PSEG (12.53%) / RE (0.49%)
b0737	Build a new Indian River – Bishop 138 kV line	DPL (100%)

**East Coast Power, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0750	Convert 138 kV network path from Vienna – Loretto – Piney - Grove to 230 kV, add 230/138 kV transformer to Loretto 230 kV	DPL (100%)
b0751	Add two additional breakers at Keeney 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: DPL (100%)
b0752	Replace two circuit breakers to bring the emergency rating up to 348 MVA	DPL (100%)
b0753	Add a second Loretto 230/138 kV transformer	DPL (100%)
b0754	Rebuild 10 miles of Glasgow to Mt. Pleasant 138 kV line to bring the normal rating to 298 MVA and the emergency rating to 333 MVA	DPL (100%)
b0792	Reconfigure Cecil Sub into 230 and 138 kV ring buses, add a 230/138 kV transformer, and operate the 34.5 kV bus normally open	DPL (100%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0873	Build 2nd Glasgow-Mt Pleasant 138 kV line	DPL (100%)
b0874	Reconfigure Brandywine substation	DPL (100%)
b0876	Install 50 MVAR SVC at 138th St 138 kV	DPL (100%)
b0877	Build a 2nd Vienna-Steele 230 kV line	DPL (100%)
b0879.1	Apply a special protection scheme (load drop at Stevensville and Grasonville)	DPL (100%)
b1246	Re-build the Townsend – Church 138 kV circuit	DPL (100%)
b1247	Re-build the Glasgow – Cecil 138 kV circuit	DPL (72.06%) / PECO (27.94%)
b1248	Install two 15 MVAR capacitor at Loretto 69 kV	DPL (100%)
b1249	Reconfigure the existing Sussex 69 kV capacitor	DPL (100%)
b1603	Upgrade 19 miles conductor of the Wattsville - Signepost - Stockton - Kenney 69 kV circuit	DPL (100%)
b1604	Replace CT at Reybold 138 kV substation	DPL (100%)
b1723	Replace strand bus and disconnect switch at Glasgow 138 kV substation	DPL (100%)

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-3.

Delmarva Power & Light Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1899.1	Install new variable reactors at Indian River and Nelson 138 kV		DPL (100%)
b1899.2	Install new variable reactors at Cedar Creek 230 kV		DPL (100%)
b1899.3	Install new variable reactors at New Castle 138 kV and Easton 69 kV		DPL (100%)

SCHEDULE 12 – APPENDIX

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0215	Install 230 kV series reactor and 2- 100 MVAR PLC switched capacitors at Hunterstown	AEC (6.71%) / APS (3.97%) / DPL (9.10%) / JCPL (16.85%) / ME (10.53%) / NEPTUNE* (1.69%) / PECO (19.00%) / PPL (7.55%) / PSEG (22.67%) / RE (0.34%) / UGI (0.95%) / ECP** (0.64%)
b0404.1	Replace South Reading 230 kV breaker 107252	ME (100%)
b0404.2	Replace South Reading 230 kV breaker 100652	ME (100%)
b0575.1	Rebuild Hunterstown – Texas Eastern Tap 115 kV	ME (100%)
b0575.2	Rebuild Texas Eastern Tap – Gardners 115 kV and associated upgrades at Gardners including disconnect switches	ME (100%)
b0650	Reconductor Jackson – JE Baker – Taxville 115 kV line	ME (100%)
b0652	Install bus tie circuit breaker on Yorkana 115 kV bus and expand the Yorkana 230 kV ring bus by one breaker so that the Yorkana 230/115 kV banks 1, 3, and 4 cannot be lost for either B-14 breaker fault or a 230 kV line or bank fault with a stuck breaker	ME (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

**(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company
Zone**

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0653	Construct a 230 kV Bernville station by tapping the North Temple – North Lebanon 230 kV line. Install a 230/69 kV transformer at existing Bernville 69 kV station		ME (100%)
b1000	Replace Portland 115 kV breaker '95312'		ME (100%)
b1001	Replace Portland 115 kV breaker '92712'		ME (100%)
b1002	Replace Hunterstown 115 kV breaker '96392'		ME (100%)
b1003	Replace Hunterstown 115 kV breaker '96292'		ME (100%)
b1004	Replace Hunterstown 115 kV breaker '99192'		ME (100%)
b1061	Replace existing Yorkana 230/115 kV transformer banks 1 and 4 with a single, larger transformer similar to transformer bank #3		ME (100%)
b1061.1	Replace the Yorkana 115 kV breaker '97282'		ME (100%)
b1061.2	Replace the Yorkana 115 kV breaker 'B282'		ME (100%)
b1302	Replace the limiting bus conductor and wave trap at the Jackson 115 kV terminal of the Jackson – JE Baker Tap 115 kV line		ME (100%)
b1365	Reconductor the Middletown – Collins 115 kV (975) line 0.32 miles of 336 ACSR		ME (100%)

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1366	Reconductor the Collins – Cly – Newberry 115 kV (975) line 5 miles with 795 ACSR		ME (100%)
b1727	Reconductor 2.4 miles of existing 556 and 795 ACSR from Harley Davidson to Pleasureville 115 kV with 795 ACSS to raise the ratings		ME (100%)
b1800	Install a 500 MVAR SVC at the existing Hunterstown 500 kV substation		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: DPL (31.58%) / ME (34.84%) / PECO (33.58%)
b1801	Build a 250 MVAR SVC at Altoona 230 kV		AEC (6.47%) / AEP (2.58%) / APS (6.88%) / BGE (6.57%) / DPL (12.39%) / Dominion (14.89%) / JCPL (8.14%) / ME (6.21%) / NEPTUNE* (0.82%) / PECO (21.56%) / PPL (4.89%) / PSEG (8.18%) / RE (0.33%) / ECP** (0.09%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements Customer(s)		Annual Revenue Requirement	Responsible
b1816.5	Replace SCCIR (Sub-conductor) at Hunterstown Substation on the No. 1, 230/115 kV transformer		ME (100%)
b1999	Replace limiting wave trap, circuit breaker, substation conductor, relay and current transformer components at Northwood		ME (100%)
b2000	Replace limiting wave trap on the Glendon - Hosensack line		ME (100%)
b2001	Replace limiting circuit breaker and substation conductor transformer components at Portland 230kV		ME (100%)
b2002	Northwood 230/115 kV Transformer upgrade		ME (100%)
b2023	Construct a new North Temple - Riverview - Cartech 69 kV line (4.7 miles) with 795 ACSR		ME (100%)
b2024	Upgrade 4/0 substation conductors at Middletown 69 kV		ME (100%)
b2025	Upgrade 4/0 and 350 Cu substation conductors at the Middletown Junction terminal of the Middletown Junction - Wood Street Tap 69 kV line		ME (100%)
b2026	Upgrade an OC protection relay at the Baldy 69 kV substation		ME (100%)
b2148	Install a 115 kV 28.8 MVAR capacitor at Pleasureville substation		ME (100%)

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements Customer(s)		Annual Revenue Requirement	Responsible
b2149	Upgrade substation riser on the Smith St. - York Inc. 115 kV line		ME (100%)
b2150	Upgrade York Haven structure 115 kV bus conductor on Middletown Jct. - Zions View 115 kV		ME (100%)

SCHEDULE 12 – APPENDIX

(7) Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0284.1	Build 500 kV substation in PENELEC – Tap the Keystone – Juniata and Conemaugh – Juniata 500 kV, connect the circuits with a breaker and half scheme, and install new 400 MVAR capacitor	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0284.3	Replace wave trap and upgrade a bus section at Keystone 500 kV – on the Keystone – Airydale 500 kV	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)

* Neptune Regional Transmission System, LLC

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0285.1	Replace wave trap at Keystone 500 kV – on the Keystone – Conemaugh 500 kV	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0285.2	Replace wave trap and relay at Conemaugh 500 kV – on the Conemaugh – Keystone 500 kV	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)

* Neptune Regional Transmission System, LLC

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0349	Upgrade Rolling Meadows-Gore Jct 115 kV		PENELEC (100%)
b0360	Construction of a ring bus on the 345 kV side of Wayne substation		PENELEC (100%)
b0365	Add a 50 MVAR, 230 kV cap bank at Altoona 230 kV		PENELEC (100%)
b0369	Install 100 MVAR Dynamic Reactive Device at Airydale 500 kV substation		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0370	Install 500 MVAR Dynamic Reactive Device at Airydale 500 kV substation		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)

* Neptune Regional Transmission System, LLC

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0376	Install 300 MVAR capacitor at Conemaugh 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (5.89%) / BGE (14.03%) / JCPL (19.26%) / ME (10.43%) / NEPTUNE* (2.13%) / PECO (20.70%) / PSEG (26.53%) / RE (1.03%)</p>
b0442	Spare Keystone 500/230 kV transformer	PENELEC (100%)
b0515	Replace Lewistown circuit breaker 1LY Yeagertown	PENELEC (100%)
b0516	Replace Lewistown circuit breaker 2LY Yeagertown	PENELEC (100%)
b0517	Replace Shawville bus section circuit breaker	PENELEC (100%)
b0518	Replace Homer City circuit breaker 201 Johnstown	PENELEC (100%)

* Neptune Regional Transmission System, LLC

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0519	Replace Keystone circuit breaker 4 Transformer - 20	PENELEC (100%)
b0549	Install 250 MVAR capacitor at Keystone 500 kV	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (5.52%) / BGE (16.52%) / DL (0.04%) / DPL (5.56%) / JCPL (16.64%) / ME (11.08%) / NEPTUNE* (1.84%) / PECO (19.45%) / PSEG (22.48%) / RE (0.87%)</p>
b0550	Install 25 MVAR capacitor at Lewis Run 115 kV substation	AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0551	Install 25 MVAR capacitor at Saxton 115 kV substation	AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0552	Install 50 MVAR capacitor at Altoona 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0553	Install 50 MVAR capacitor at Raystown 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0555	Install 100 MVAR capacitor at Johnstown 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0556	Install 50 MVAR capacitor at Grover 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0557	Install 75 MVAR capacitor at East Towanda 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0563	Install 25 MVAR capacitor at Farmers Valley 115 kV substation		PENELEC (100%)
b0564	Install 10 MVAR capacitor at Ridgeway 115 kV substation		PENELEC (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0654	Reconfigure the Cambria Slope 115 kV and Wilmore Junction 115 kV stations to eliminate Wilmore Junction 115 kV 3-terminal line		PENELEC (100%)
b0655	Reconfigure and expand the Glade 230 kV ring bus to eliminate the Glade Tap 230 kV 3-terminal line		PENELEC (100%)
b0656	Add three breakers to form a ring bus at Altoona 230 kV		PENELEC (100%)
b0794	Upgrade the Homer City 230 kV breaker 'Pierce Road'		PENELEC (100%)
b1005	Replace Glory 115 kV breaker '#7 XFMR'		PENELEC (100%)
b1006	Replace Shawville 115 kV breaker 'NO.14 XFMR'		PENELEC (100%)
b1007	Replace Shawville 115 kV breaker 'NO.15 XFMR'		PENELEC (100%)
b1008	Replace Shawville 115 kV breaker '#1B XFMR'		PENELEC (100%)
b1009	Replace Shawville 115 kV breaker '#2B XFMR'		PENELEC (100%)
b1010	Replace Shawville 115 kV breaker 'Dubois'		PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1011	Replace Shawville 115 kV breaker 'Philipsburg'	PENELEC (100%)
b1012	Replace Shawville 115 kV breaker 'Garman'	PENELEC (100%)
b1059	Replace a CRS relay at Hooversville 115 kV station	PENELEC (100%)
b1060	Replace a CRS relay at Rachel Hill 115 kV station	PENELEC (100%)
b1153	Upgrade Conemaugh 500/230 kV transformer and add a new line from Conemaugh-Seward 230 kV	AEC (3.74%) / APS (6.26%) / BGE (16.82%) / DL (0.32%) / JCPL (12.57%) / ME (6.89%) / PECO (11.53%) / PEPCO (0.55%) / PPL (15.42%) / PSEG (20.52%) / RE (0.72%) / NEPTUNE* (1.70%) / ECP** (2.96%)
b1153.1	Revise the reclosing on the Shelocta 115 kV breaker 'Lucerne'	PENELEC (100%)
b1169	Replace Shawville 115 kV breaker '#1A XFMR'	PENELEC (100%)
b1170	Replace Shawville 115 kV breaker '#2A XFMR'	PENELEC (100%)
b1277	Build a new Osterburg East – Bedford North 115 kV Line, 5.7 miles of 795 ACSR	PENELEC (100%)
b1278	Install 25 MVAR Capacitor Bank at Somerset 115 kV	PENELEC (100%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1367	Replace the Cambria Slope 115/46 kV 50 MVA transformer with 75 MVA	PENELEC (100%)
b1368	Replace the Claysburg 115/46 kV 30 MVA transformer with 75 MVA	PENELEC (100%)
b1369	Replace the 4/0 CU substation conductor with 795 ACSR on the Westfall S21 Tap 46 kV line	PENELEC (100%)
b1370	Install a 3rd 115/46 kV transformer at Westfall	PENELEC (100%)
b1371	Reconductor 2.6 miels of the Claysburg – HCR 46 kV line with 636 ACSR	PENELEC (100%)
b1372	Replace 4/0 CU substation conductor with 795 ACSR on the Hollidaysburg – HCR 46 kV	PENELEC (100%)
b1373	Re-configure the Erie West 345 kV substation, add a new circuit breaker and relocate the Ashtabula line exit	PENELEC (100%)
b1374	Replace wave traps at Raritan River and Deep Run 115 kV substations with higher rated equipment for both B2 and C3 circuits	PENELEC (100%)
b1535	Reconductor 0.8 miles of the Gore Junction – ESG Tap 115 kV line with 795 ACSS	PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1607	Reconductor the New Baltimore - Bedford North 115 kV	PENELEC (100%)
b1608	Construct a new 345/115 kV substation and loop the Mansfield - Everts 115 kV	APS (8.61%) / PECO (1.72%) / PENELEC (89.67%)
b1609	Construct Four Mile Junction 230/115 kV substation. Loop the Erie South - Erie East 230 kV line, Buffalo Road - Corry East and Buffalo Road - Erie South 115 kV lines	APS (4.86%) / PENELEC (95.14%)
b1610	Install a new 230 kV breaker at Yeagertown	PENELEC (100%)
b1713	Install a 345 kV breaker at Erie West and relocate Ashtabula 345 kV line	PENELEC (100%)
b1769	Install a 75 MVAR cap bank on the Four Mile 230 kV bus	PENELEC (100%)
b1770	Install a 50 MVAR cap bank on the Buffalo Road 115 kV bus	PENELEC (100%)
b1802	Build a 100 MVAR Fast Switched Shunt and 200 MVAR Switched Shunt at Mansfield 345 kV	AEC (6.47%) / AEP (2.58%) / APS (6.88%) / BGE (6.57%) / DPL (12.39%) / Dominion (14.89%) / JCPL (8.14%) / ME (6.21%) / NEPTUNE* (0.82%) / PECO (21.56%) / PPL (4.89%) / PSEG (8.18%) / RE (0.33%) / ECP** (0.09%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1821	Replace the Erie South 115 kV breaker 'Union City'	PENELEC (100%)
b1943	Construct a 115 kV ring bus at Claysburg Substation. Bedford North and Saxton lines will no longer share a common breaker	PENELEC (100%)
b1944	Reconductor Eclipse substation 115 kV bus with 1033 kcmil conductor	PENELEC (100%)
b1945	Install second 230/115 kV autotransformer at Johnstown	PENELEC (100%)
b1966	Replace the 1200 Amp Line trap at Lewistown on the Raystown-Lewistown 230 kV line and replace substation conductor at Lewistown	PENELEC (100%)
b1967	Replace the Blairsville 138/115 kV transformer	PENELEC (100%)
b1990	Install a 25 MVAR 115 kV Capacitor at Grandview	PENELEC (100%)
b1991	Construct Farmers Valley 345/230 kV and 230/115 kV substation. Loop the Homer City-Stolle Road 345 kV line into Farmers Valley	PENELEC (100%)
b1992	Reconductor Cambria Slope-Summit 115kV with 795 ACSS Conductor	PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1993	Relocate the Erie South 345 kV line terminal	APS (10.09%) / ECP** (0.45%) / HTP*** (0.49%) / JCPL (5.14%) / NEPTUNE* (0.54%) / PENELEC (70.71%) / PSEG (12.10%) / RE (0.48%)
b1994	Convert Lewis Run-Farmers Valley to 230 kV using 1033.5 ACSR conductor. Project to be completed in conjunction with new Farmers Valley 345/230 kV transformation	APS (33.20%) / ECP** (0.44%) / HTP*** (0.44%) / JCPL (8.64%) / ME (5.52%) / NEPTUNE* (0.86%) / PENELEC (36.81%) / PSEG (13.55%) / RE (0.54%)
b1995	Change CT Ratio at Claysburg	PENELEC (100%)
b1996.1	Replace 600 Amp Disconnect Switches on Ridgeway-Whetstone 115 kV line with 1200 Amp Disconnects	PENELEC (100%)
b1996.2	Reconductor Ridgeway and Whetstone 115 kV Bus	PENELEC (100%)
b1996.3	Replace Wave Trap at Ridgeway	PENELEC (100%)
b1996.4	Change CT Ratio at Ridgeway	PENELEC (100%)
b1997	Replace 600 Amp Disconnect Switches on Dubois-Harvey Run-Whetstone 115 kV line with 1200 Amp Disconnects	PENELEC (100%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1998	Install a 75 MVAR 115 kV Capacitor at Shawville		PENELEC (100%)
b2016	Reconductor bus at Wayne 115 kV station		PENELEC (100%)

SCHEDULE 12 – APPENDIX

(8) PECO Energy Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0171.1	Replace two 500 kV circuit breakers and two wave traps at Elroy substation to increase rating of Elroy - Hosensack 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (9.80%) / DPL (8.43%) / JCPL (19.56%) / PECO (62.21%)
b0180	Replace Whitpain 230 kV circuit breaker #165	PECO (100%)
b0181	Replace Whitpain 230 kV circuit breaker #J105	PECO (100%)
b0182	Upgrade Plymouth Meeting 230 kV circuit breaker #125	PECO (100%)
b0205	Install three 28.8 Mvar capacitors at Planebrook 35 kV substation	PECO (100%)
b0206	Install 161 Mvar capacitor at Planebrook 230 kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)

* Neptune Regional Transmission System, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0207	Install 161 Mvar capacitor at Newlinville 230 kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)
b0208	Install 161 Mvar capacitor Heaton 230 kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)
b0209	Install 2% series reactor at Chichester substation on the Chichester - Mickleton 230 kV circuit	AEC (65.23%) / JCPL (25.87%) / NEPTUNE* (2.55%) / PSEG (6.35%)
b0264	Upgrade Chichester – Delco Tap 230 kV and the PECO portion of the Delco Tap – Mickleton 230 kV circuit	AEC (89.87%) / JCPL (9.48%) / NEPTUNE* (0.65%)
b0266	Replace two wave traps and ammeter at Peach Bottom, and two wave traps and ammeter at Newlinville 230 kV substations	PECO (100%)
b0269	Install a new 500 kV Center Point substation in PECO by tapping the Elroy – Whitpain 500 kV circuit	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)†
		DFAX Allocation: AEC (6.70%) / PECO (93.30%)

* Neptune Regional Transmission System, LLC

†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0269.1	Add a new 230 kV circuit between Whitpain and Heaton substations	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.2	Reconductor the Whitpain 1 – Plymtg 1 230 kV circuit	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.3	Convert the Heaton bus to a ring bus	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.4	Reconductor the Heaton – Warminster 230 kV circuit	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0269.5	Reconductor Warminster – Buckingham 230 kV circuit	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††

††Cost allocations associated with below 500 kV elements of the project

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0269.6	Add a new 500 kV breaker at Whitpain between #3 transformer and 5029 line	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (6.70%) / PECO (93.30%)</p>
b0269.7	Replace North Wales 230 kV breaker #105	PECO (100%)
b0269.10	Install a new 230 kV Center Point substation in PECO by tapping the North Wales – Perkiomen 230 kV circuit. Install a new 500/230 kV Center Point transformer	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
b0280.1	Install 161 MVAR capacitor at Warrington 230 kV substation	PECO 100%
b0280.2	Install 161 MVAR capacitor at Bradford 230 kV substation	PECO 100%
b0280.3	Install 28.8 MVAR capacitor at Warrington 34 kV substation	PECO 100%

* Neptune Regional Transmission System, LLC

†† Cost allocations associated with below 500 kV elements of the project

PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0280.4	Install 18 MVAR capacitor at Waverly 13.8 kV substation		PECO 100%
b0287	Install 600 MVAR Dynamic Reactive Device in Whitpain 500 kV vicinity		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEC (9.80%) / DPL (8.43%) / JCPL (19.56%) / PECO (62.21%)
b0351	Reconductor Tunnel – Grays Ferry 230 kV		PECO (100%)
b0352	Reconductor Tunnel – Parrish 230 kV		PECO (100%)
b0353.1	Install 2% reactors on both lines from Eddystone – Llanerch 138 kV		PECO (100%)
b0353.2	Install identical second 230/138 kV transformer in parallel with existing 230/138 kV transformer at Plymouth Meeting		PECO 100%
b0353.3	Replace Whitpain 230 kV breaker 135		PECO (100%)
b0353.4	Replace Whitpain 230 kV breaker 145		PECO (100%)

* Neptune Regional Transmission System, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0354	Eddystone – Island Road Upgrade line terminal equipment	PECO 100%
b0355	Reconductor Master – North Philadelphia 230 kV line	PECO 100%
b0357	Reconductor Buckingham – Pleasant Valley 230 kV	JCPL (37.17%) / NEPTUNE* (4.46%) / PSEG (54.14%) / RE (2.32%) / ECP** (1.91%)
b0359	Reconductor North Philadelphia – Waneeta 230 kV circuit	PECO 100%
b0402.1	Replace Whitpain 230 kV breaker #245	PECO (100%)
b0402.2	Replace Whitpain 230 kV breaker #255	PECO (100%)
b0438	Spare Whitpain 500/230 kV transformer	PECO (100%)
b0443	Spare Peach Bottom 500/230 kV transformer	PECO (100%)
b0505	Reconductor the North Wales – Whitpain 230 kV circuit	AEC (8.58%) / DPL (7.76%) / PECO (83.66%)
b0506	Reconductor the North Wales – Hartman 230 kV circuit	AEC (8.58%) / DPL (7.76%) / PECO (83.66%)
b0507	Reconductor the Jarrett – Whitpain 230 kV circuit	AEC (8.58%) / DPL (7.76%) PECO (83.66%)
b0508.1	Replace station cable at Hartman on the Warrington - Hartman 230 kV circuit	PECO (100%)
b0509	Reconductor the Jarrett – Heaton 230 kV circuit	PECO (100%)

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**East Coast Power, L.L.C.

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0727	Rebuild Bryn Mawr – Plymouth Meeting 138 kV line	AEC (1.25%) / DPL (3.11%) / PECO (95.64%)
b0789	Reconductor the line to provide a normal rating of 677 MVA and an emergency rating of 827 MVA	AEC (0.72%) / JCPL (17.36%) / NEPTUNE* (1.70%) / PECO (44.47%) / ECP** (0.92%) / PSEG (33.52%) / RE (1.31%)
b0790	Reconductor the Bradford – Planebrook 230 kV Ckt. 220-31 to provide a normal rating of 677 MVA and emergency rating of 827 MVA	JCPL (17.30%) / NEPTUNE* (1.69%) / PECO (45.09%) / ECP** (0.93%) / PSEG (33.68%) / RE (1.31%)
b0829.1	Replace Whippain 230 kV breaker '155'	PECO (100%)
b1073	Install 2 new 230 kV breakers at Planebrook (on the 220-02 line terminal and on the 230 kV side of the #9 transformer)	PECO (100%)
b0829.2	Replace Whippain 230 kV breaker '525'	PECO (100%)
b0829.3	Replace Whippain 230 kV breaker '175'	PECO (100%)
b0829.4	Replace Plymouth Meeting 230 kV breaker '225'	PECO (100%)
b0829.5	Replace Plymouth Meeting 230 kV breaker '335'	PECO (100%)
b0841	Move the connection points for the 2nd Plymouth Meeting 230/138 kV XFMR	PECO (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0842	Install a 2nd 230/138 kV XFMR and 35 MVAR CAP at Heaton 138 kV bus	PECO (100%)
b0842.1	Replace Heaton 138 kV breaker '150'	PECO (100%)
b0843	Install a 75 MVAR CAP at Llanerch 138 kV bus	PECO (100%)
b0844	Move the connection point for the Llanerch 138/69 kV XFMR	PECO (100%)
b0887	Replace Richmond-Tacony 69 kV line	PECO (100%)
b0920	Replace station cable at Whitpain and Jarrett substations on the Jarrett - Whitpain 230 kV circuit	PECO (100%)
b1014.1	Replace Circuit breaker, Station Cable, CTs and Wave Trap at Eddystone 230 kV	PECO (100%)
b1014.2	Replace Circuit breaker, Station Cable, CTs Disconnect Switch and Wave Trap at Island Rd. 230 kV	PECO (100%)
b1015	Replace Breakers #115 and #125 at Printz 230 kV substation	PECO (100%)
b1156.1	Upgrade at Richmond 230 kV breaker '525'	PECO (100%)
b1156.2	Upgrade at Richmond 230 kV breaker '415'	PECO (100%)
b1156.3	Upgrade at Richmond 230 kV breaker '475'	PECO (100%)
b1156.4	Upgrade at Richmond 230 kV breaker '575'	PECO (100%)

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1156.5	Upgrade at Richmond 230 kV breaker '185'	PECO (100%)
b1156.6	Upgrade at Richmond 230 kV breaker '285'	PECO (100%)
b1156.7	Upgrade at Richmond 230 kV breaker '85'	PECO (100%)
b1156.8	Upgrade at Waneeta 230 kV breaker '425'	PECO (100%)
b1156.9	Upgrade at Emilie 230 kV breaker '815'	PECO (100%)
b1156.10	Upgrade at Plymouth Meeting 230 kV breaker '265'	PECO (100%)
b1156.11	Upgrade at Croydon 230 kV breaker '115'	PECO (100%)
b1156.12	Replace Emilie 138 kV breaker '190'	PECO (100%)
b1178	Add a second 230/138 kV transformer at Chichester. Add an inductor in series with the parallel transformers	JCPL (4.14%) / Neptune* (0.44%) / PECO (82.19%) / ECP** (0.33%) / HTP*** (0.32%) / PSEG (12.10%) / RE (0.48%)
b1179	Replace terminal equipment at Eddystone and Saville and replace underground section of the line	PECO (100%)
b1180.1	Replace terminal equipment at Chichester	PECO (100%)
b1180.2	Replace terminal equipment at Chichester	PECO (100%)
b1181	Install 230/138 kV transformer at Eddystone	PECO (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1182	Reconductor Chichester – Saville 138 kV line and upgrade terminal equipment	JCPL (5.08%) / Neptune* (0.54%) / PECO (78.85%) / ECP** (0.39%) / HTP*** (0.38%) / PSEG (14.20%) / RE (0.56%)
b1183	Replace 230/69 kV transformer #6 at Cromby. Add two 50 MVAR 230 kV banks at Cromby	PECO (100%)
b1184	Add 138 kV breakers at Cromby, Perkiomen, and North Wales; add a 35 MVAR capacitor at Perkiomen 138 kV	PECO (100%)
b1185	Upgrade Eddystone 230 kV breaker #365	PECO (100%)
b1186	Upgrade Eddystone 230 kV breaker #785	PECO (100%)
b1197	Reconductor the PECO portion of the Burlington – Croydon circuit	PECO (100%)
b1198	Replace terminal equipments including station cable, disconnects and relay at Conowingo 230 kV station	PECO (100%)
b1338	Replace Printz 230 kV breaker ‘225’	PECO (100%)
b1339	Replace Printz 230 kV breaker ‘315’	PECO (100%)
b1340	Replace Printz 230 kV breaker ‘215’	PECO (100%)
b1398.6	Reconductor the Camden – Richmond 230 kV circuit (PECO portion) and upgrade terminal equipments at Camden substations	JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1398.8	Reconductor Richmond – Waneeta 230 kV and replace terminal equipments at Richmond and Waneeta substations	JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.12	Replace Graysferry 230 kV breaker ‘115’	PECO (100%)
b1398.13	Upgrade Peach Bottom 500 kV breaker ‘225’	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)†
b1398.14	Replace Whitpain 230 kV breaker ‘105’	PECO (100%)
b1590.1	Upgrade the PECO portion of the Camden – Richmond 230 kV to a six wire conductor and replace terminal equipment at Richmond.	BGE (3.05%) / ME (0.83%) / HTP*** (0.21%) / PECO (91.36%) / PEPCO (1.93%) / PPL (2.46%) / ECP** (0.16%)
b1591	Reconductor the underground portion of the Richmond – Waneeta 230 kV and replace terminal equipment	BGE (4.54%) / DL (0.27%) / ME (1.04%) / HTP*** (0.03%) / PECO (88.08%) / PEPCO (2.79%) / PPL (3.25%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1717	Install a second Waneeta 230/138 kV transformer on a separate bus section	HTP*** (0.04%) / PECO (99.96%)
b1718	Reconductor the Crescentville - Foxchase 138 kV circuit	PECO (100%)
b1719	Reconductor the Foxchase - Bluegrass 138 kV circuit	PECO (100%)
b1720	Increase the effective rating of the Eddystone 230/138 kV transformer by replacing a circuit breaker at Eddystone	PECO (100%)
b1721	Increase the rating of the Waneeta - Tuna 138 kV circuit by replacing two 138 kV CTs at Waneeta	PECO (100%)
b1722	Increase the normal rating of the Cedarbrook - Whitemarsh 69 kV circuit by changing the CT ratio and replacing station cable at Whitemarsh 69 kV	PECO (100%)
b1768	Install 39 MVAR capacitor at Cromby 138 kV bus	PECO (100%)
b1900	Add a 3rd 230 kV transmission line between Chichester and Linwood substations and remove the Linwood SPS	PECO (69.62%) / JCPL (6.02%) / ATSI (1.23%) / PSEG (20.83%) / RE (0.83%) / NEPTUNE* (0.59%) / ECP** (0.45%) / HTP*** (0.43%)
b2140	Install a 3rd Emilie 230/138 kV transformer	PECO (97.04%) / ECP** (1.62%) / HTP*** (1.34%)
b2145	Replace two sections of conductor inside Richmond substation	PECO (100%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

SCHEDULE 12 – APPENDIX

(9) PPL Electric Utilities Corporation

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0074	Rebuild 12 miles of S. Akron – Berks 230 kV to double circuit, looping Met Ed’s S. Lebanon – S. Reading line into Berks; replacement of S. Reading 230 kV breaker 107252	PPL (100%)
b0171.2	Replace wavetrapp at Hosensack 500 kV substation to increase rating of Elroy - Hosensack 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (9.80%) / DPL (8.43%) / JCPL (19.56%) / PECO (62.21%)

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0172.1	Replace wave trap at Alburdis 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (8.24%) / JCPL (30.19%) / NEPTUNE* (4.85%) / PSEG (54.60%) / RE (2.12%)</p>
b0284.2	Replace two wave traps at Juniata 500 kV – on the two Juniata – Airydale 500 kV	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (5.89%) / BGE (14.03%) / JCPL (19.26%) / ME (10.43%) / NEPTUNE* (2.13%) / PECO (20.70%) / PSEG (26.53%) / RE (1.03%)</p>

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0284.4	Changes at Juniata 500 kV substation		PPL (100%)
b0293.1	Replace wavetrap at the Martins Creek 230 kV bus		PPL (100%)
b0293.2	Raise the operating temperature of the 2-1590 ACSR to 140C for the Martins Creek – Portland 230 kV circuit		PPL (100%)
b0440	Spare Juniata 500/230 kV transformer		PPL (100%)
b0468	Build a new substation with two 150 MVA transformers between Dauphin and Hummelstown 230/69 kV substations by sectionalizing the Middletown Junction – New Lebanon 230 kV line		JCPL (4.55%) / NEPTUNE* (0.37%) / PECO (1.79%) / PENELEC (0.33%) / PPL (86.63%) / ECP** (0.18%) / PSEG (5.93%) / RE (0.22%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0469	Install 130 MVAR capacitor at West Shore 230 kV line	PPL (100%)
b0487	Build new 500 kV transmission facilities from Susquehanna to Pennsylvania – New Jersey border at Bushkill	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: JCPL (30.99%) / NEPTUNE* (3.92%) / PSEG (62.66%) / RE (2.43%)</p>
b0487.1	Install Lackawanna 500/230 kV transformer and upgrade 230 kV substation and switchyard	PENELEC (16.90%) / PPL (77.59%) / ECP** (0.19%) / PSEG (5.13%) / RE (0.19%)
b0500.1	Conastone – Otter Creek 230 kV – Reconductor approximately 17.2 miles of 795 kcmil ACSR with new 795 kcmil ACSS operated at 160 deg C	AEC (6.27%) / DPL (8.65%) / JCPL (14.54%) / ME (10.59%) / Neptune* (1.37%) / PECO (15.66%) / PPL (21.02%) / ECP** (0.57%) / PSEG (20.56%) / RE (0.77%)

*Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

The Annual Revenue Requirements associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-8G.

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0558	Install 250 MVAR capacitor at Juniata 500 kV substation	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0593	Eldred – Pine Grove 69 kV line Rebuild Part 2: 8 miles	PPL (100%)
b0595	Rebuild Lackawanna – Edella 69 kV line to double circuit	PPL (100%)
b0596	Reconductor and rebuild Stanton – Providence 69 kV #1 and #2 lines with 69 kV design; approximately 8 miles total	PPL (100%)
b0597	Reconductor Suburban – Providence 69 kV #1 and resectionalize the Suburban 69 kV lines	PPL (100%)
b0598	Reconductor Suburban Taps #1 and #2 for 69 kV line portions	PPL (100%)

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0600	Tripp Park Substation: 69 kV tap off Stanton – Providence 69 kV line #3 to new substation		PPL (100%)
b0601	Jessup Substation: New 138/69 kV tap off of Peckville – Jackson 138/69 kV line		PPL (100%)
b0604	Add 150 MVA, 230/138/69 transformer #6 to Harwood substation		PPL (100%)
b0605	Reconductor Stanton – Old Forge 69 kV line and resectionalize the Jenkins – Scranton 69 kV #1 and #2 lines		PPL (100%)
b0606	New 138 kV tap off Monroe – Jackson 138 kV #1 line to Bartonsville substation		PPL (100%)
b0607	New 138 kV taps off Monroe – Jackson 138 kV lines to Stroudsburg substation		PPL (100%)
b0608	New 138 kV tap off Siegfried – Jackson 138 kV #2 to transformer #2 at Gilbert substation		PPL (100%)
b0610	At South Farmersville substation, a new 69 kV tap off Nazareth – Quarry #2 to transformer #2		PPL (100%)
b0612	Rebuild Siegfried – North Bethlehem portion (6.7 miles) of Siegfried – Quarry 69 kV line		PPL (100%)
b0613	East Tannersville Substation: New 138 kV tap to new substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0614	Elroy substation expansion and new Elroy – Hatfield 138/69 kV double circuit lines (1.9 miles)		PPL (100%)
b0615	Reconductor and rebuild 12 miles of Seidersville – Quakerstown 138/69 kV and a new 75 MVA, 230/69 kV transformer #4		PPL (100%)
b0616	New Springfield 230/69 kV substation and transmission line connections		PPL (100%)
b0620	New 138 kV line and terminal at Monroe 230/138 substation		PPL (100%)
b0621	New 138 kV line and terminal at Siegfried 230/138 kV substation and add a second circuit to Siegfried – Jackson for 8.0 miles		PPL (100%)
b0622	138 kV yard upgrades and transmission line rearrangements at Jackson 138/69 kV substation		PPL (100%)
b0623	New West Shore – Whitehill Taps 138/69 kV double circuit line (1.3 miles)		PPL (100%)
b0624	Reconductor Cumberland – Wertzville 69 kV portion (3.7 miles) of Cumberland – West Shore 69 kV line		PPL (100%)
b0625	Reconductor Mt. Allen – Rossmoyne 69 kV portions (1.6 miles) of West Shore – Cumberland #3 and #4 lines		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0627	Replace UG cable from Walnut substation to Center City Harrisburg substation for higher ampacity (0.25 miles)		PPL (100%)
b0629	Lincoln substation: 69 kV tap to convert to modified Twin A		PPL (100%)
b0630	W. Hempfield – Donegal 69 kV line: Reconductor / rebuild from Landisville Tap – Mt. Joy (2 miles)		PPL (100%)
b0631	W. Hempfield – Donegal 69 kV line: Reconductor / rebuild to double circuit from Mt. Joy – Donegal (2 miles)		PPL (100%)
b0632	Terminate new S. Manheim – Donegal 69 kV circuit into S. Manheim 69 kV #3		PPL (100%)
b0634	Rebuild S. Manheim – Fuller 69 kV portion (1.0 mile) of S. Manheim – West Hempfield 69 kV #3 line into a 69 kV double circuit		PPL (100%)
b0635	Reconductor Fuller Tap – Landisville 69 kV (4.1 miles) into a 69 kV double circuit		PPL (100%)
b0703	Berks substation modification on Berks – South Akron 230 kV line. Modification will isolate the line fault on the South Akron line and will allow Berks transformer #2 to be energized by the South Lebanon 230 kV circuit		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0705	New Derry – Millville 69 kV line		PPL (100%)
b0707	Construct Bohemia – Twin Lakes 69 kV line, install a 10.9 MVAR capacitor bank near Bohemia 69 kV substation		PPL (100%)
b0708	New 69 kV double circuit from Jackson – Lake Naomi Tap		PPL (100%)
b0709	Install new 69 kV double circuit from Carlisle – West Carlisle		PPL (100%)
b0710	Install a third 69 kV line from Reese’s Tap to Hershey substation		PPL (100%)
b0711	New 69 kV that taps West Shore – Cumberland 69 kV #1 to Whitehill 69 kV substation		PPL (100%)
b0712	Construct a new 69 kV line between Strassburg Tap and the Millwood – Engleside 69 kV #1 line		PPL (100%)
b0713	Construct a new 138 kV double circuit line between Dillersville Tap and the West Hempfield – Prince 138 kV line		PPL (100%)
b0714	Prepare Roseville Tap for 138 kV conversion		PPL (100%)
b0715	Transfer S. Akron – S. Manheim #1 and #2 lines from the S. Akron 69 kV Yard to the S. Akron 138 kV Yard; Install switches on S. Akron – S. Manheim 138 kV #1 and #2 lines		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0716	Add a second 69 kV line from Morgantown – Twin Valley		PPL (100%)
b0717	Rebuild existing Brunner Island – West Shore 230 kV line and add a second Brunner Island – West Shore 230 kV line		PPL (100%)
b0718	SPS scheme to drop 190 MVA of 69 kV radial load at West Shore and 56 MVA of 69 kV radial load at Cumberland		PPL (100%)
b0719	SPS scheme at Jenkins substation to open the Stanton #1 and Stanton #2 230 kV circuit breakers after the second contingency		PPL (100%)
b0791	Add a fourth 230/69 kV transformer at Stanton		PENELEC (9.55%) / PPL (90.45%)
b1074	Install motor operators on the Jenkins 230 kV ‘2W’ disconnect switch and build out Jenkins Bay 3 and have MOD ‘3W’ operated as normally open		PPL (100%)
b0881	Install motor operators on Susquehanna T21 - Susquehanna 230 kV line East CB at Susquehanna 230 kV switching station		PPL (100%)
b0908	Install motor operators at South Akron 230 kV		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0909	Convert Jenkins 230 kV yard into a 3-breaker ring bus		PPL (100%)
b0910	Install a second 230 kV line between Jenkins and Stanton		PPL (100%)
b0911	Install motor operators at Frackville 230 kV		PPL (100%)
b0912	Install 2, 10.8 MVAR capacitor banks at Scranton 69 kV		PPL (100%)
b0913	Extend Cando Tap to the Harwood-Jenkins #2 69 kV line		PPL (100%)
b0914	Build a 3rd 69 kV line from Harwood to Valmont Taps		PPL (100%)
b0915	Replace Walnut-Center City 69 kV cable		PPL (100%)
b0916	Reconductor Sunbury-Dalmatia 69 kV line		PPL (100%)
b1021	Install a new (#4) 138/69 kV transformer at Wescosville		PPL (100%)
b1196	Remove the Siegfried bus tie breaker and install a new breaker on the Martins Creek 230 kV line west bay to maintain two ties between the 230 kV buses		PPL (100%)
b1201	Rebuild the Hercules Tap to Double Circuit 69 kV		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1202	Mack-Macungie Double Tap, Single Feed Arrangement		PPL (100%)
b1203	Add the 2nd Circuit to the East Palmerton-Wagners-Lake Naomi 138/69 kV Tap		PPL (100%)
b1204	New Breinigsville 230-69 kV Substation		PPL (100%)
b1205	Siegfried-East Palmerton #1 69 kV Line- Install new 69 kV LSAB, Sectionalize, and Transfer Treichlers Substation		PPL (100%)
b1206	Siegfried-Quarry #1 & #2 69 kV Lines- Rebuild 3.3 mi from Quarry Substation to Macada Taps		PPL (100%)
b1209	Convert Neffsville Taps from 69 kV to 138 kV Operation		PPL (100%)
b1210	Convert Roseville Taps from 69 kV to 138 kV Operation (Part 1 – operate on the 69 kV system)		PPL (100%)
b1211	Convert Roseville Taps from 69 kV to 138 kV Operation (Part 2 – operate on the 138 kV system)		PPL (100%)
b1212	New 138 kV Taps to Flory Mill 138/69 kV Substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b1213	Convert East Petersburg Taps from 69 kV to 138 kV operation, install two 10.8 MVAR capacitor banks		PPL (100%)
b1214	Terminate South Manheim-Donegal #2 at South Manheim, Reduce South Manheim 69 kV Capacitor Bank, Resectionalize 69 kV		PPL (100%)
b1215	Reconductor and rebuild 16 miles of Peckville-Varden 69 kV line and 4 miles of Blooming Grove-Honesdale 69 kV line		PPL (100%)
b1216	Build approximately 2.5 miles of new 69 kV transmission line to provide a “double tap – single feed” connection to Kimbles 69/12 kV substation		PPL (100%)
b1217	Provide a “double tap – single feed” connection to Tafton 69/12 kV substation		PPL (100%)
b1524	Build a new Pocono 230/69 kV substation		PPL (100%)
b1524.1	Build approximately 14 miles new 230 kV South Pocono – North Pocono line		PPL (100%)
b1524.2	Install MOLSABs at Mt. Pocono substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1525	Build new West Pocono 230/69 kV Substation		PPL (100%)
b1525.1	Build approximately 14 miles new 230 kV Jenkins-West Pocono 230 kV Line		PPL (100%)
b1525.2	Install Jenkins 3E 230 kV circuit breaker		PPL (100%)
b1526	Install a new Honeybrook – Twin Valley 69/138 kV tie		PPL (100%)
b1528	Install Motor-Operated switches on the Wescosville-Trexlerstown #1 & #2 69 kV lines at East Texas Substation		PPL (100%)
b1529	Add a double breaker 230 kV bay 3 at Hosensack		PPL (100%)
b1530	Replace Lock Haven 69 kV ring bus with standard breaker and half design		PPL (100%)
b1532	Install new 32.4 MVAR capacitor bank at Sunbury		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1533	Rebuild Lycoming-Lock Haven #1 and Lycoming-Lock Haven #2 69 kV lines		PPL (100%)
b1534	Rebuild 1.4 miles of the Sunbury-Milton 69 kV		PPL (100%)
b1601	Re-configure the Breinigsville 500 kV substation with addition two 500 kV circuit breakers		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)†
b1602	Re-configure the ElimSPORT 230 kV substation to breaker and half scheme and install 80 MVAR capacitor		PPL (100%)
b1740	Install a 90 MVAR cap bank on the Frackville 230 kV bus #207973		PPL (100%)
b1756	Install a 3rd West Shore 230/69 kV transformer		PPL (100%)
b1757	Install a 230 kV motor-operated air-break switch on the Clinton - ElimSPORT 230 kV line		PPL (100%)

* Neptune Regional Transmission System, LLC

† Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1758	Rebuild 1.65 miles of Columbia - Danville 69 kV line		PPL (100%)
b1759	Install a 69 kV 16.2 MVAR Cap at Milton substation		PPL (100%)
b1760	Install motor operated devices on the existing disconnect switches that are located on each side of all four 230 kV CBs at Stanton		PPL (100%)
b1761	Build a new Paupack - North 230 kV line (Approximately 21 miles)		PPL (100%)
b1762	Replace 3.7 miles of the existing 230 kV Blooming Grove - Peckville line by building 8.4 miles of new 230 kV circuit onto the Lackawanna - Hopatcong tower-line		PPL (100%)
b1763	Re-terminate the Peckville - Jackson and the Peckville - Varden 69 kV lines from Peckville into Lackawanna		PPL (100%)
b1764	Build a new 230-69 kV substations (Paupack)		PPL (100%)
b1765	Install a 16.2 MVAR capacitor bank at Bohemia 69-12 kV substation		PPL (100%)
b1766	Reconductor/rebuild 3.3 miles of the Siegfried - Quarry #1 and #2 lines		PPL (100%)
b1767	Install 6 motor-operated disconnect switches at Quarry substation		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1788	Install a new 500 kV circuit breaker at Wescosville		PPL (100%)
b1890	Add a second 230/69 kV transformer at North Pocono (NE/Pocono Reliability Project)		PPL (100%)
b1891	Build a new 230/138 kV Yard at Lackawanna (138 kV conversion from Lackawanna to Jenkins)		PPL (100%)
b1892	Rebuild the Throop Taps for 138 kV operation (138 kV Conversion from Lackawanna to Jenkins)		PPL (100%)
b1893	Swap the Staton - Old Forge and Stanton - Brookside 69 kV circuits at Stanton (138 kV Conversion from Lackawanna to Jenkins)		PPL (100%)
b1894	Rebuild and re-conductor 2.5 miles of the Stanton - Avoca 69 kV line		PPL (100%)
b1895	Rebuild and re-conductor 4.9 miles of the Stanton - Providence #1 69 kV line		PPL (100%)
b1896	Install a second 230/138 kV transformer and expand the 138 kV yard at Monroe		PPL (100%)
b1897	Build a new 230/138 kV substation at Jenkins (138 kV Conversion from Lackawanna to Jenkins)		PPL (100%)
b1898	Install a 69 kV Tie Line between Richfield and Dalmatia substations		PPL (100%)
b2004	Replace the CTs and switch in South Akron Bay 4 to increase the rating		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2005	Replace the CTs and switch in SAKR Bay 3 to increase the rating of the Millwood-South Akron 230 kV Line and of the rating in Bay 3		PPL (100%)
b2006	Install North Lancaster 500/230 kV substation (below 500 kV portion)		AEC (1.10%) / ECP** (0.37%) / HTP*** (0.37%) / JCPL (9.61%) / ME (19.42%) / NEPTUNE* (0.75%) / PECO (6.01%) / PPL (50.57%) / PSEG (11.35%) / RE (0.45%)
b2006.1	Install North Lancaster 500/230 kV substation (500 kV portion)		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: BGE (19.51%) / PPL (80.49%)
b2006.2	Construct a new 230/69 kV North Lancaster substation. The sub will be supplied from the SAKR-BERK 230 kV Line		PPL (100%)
b2006.3	Construct new 69/138 kV transmission from North Lancaster 230/69 kV sub to Brecknock and Honeybrook areas		PPL (100%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

*** Hudson Transmission Partners, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2007	Install a 90 MVAR capacitor bank at the Frackville 230 kV Substation		PPL (100%)
b2158	Install 10.8 MVAR capacitor at West Carlisle 69/12 kV substation		PPL (100%)

SCHEDULE 12 – APPENDIX

(10) Potomac Electric Power Company

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0146	Installation of (2) new 230 kV circuit breakers at Quince Orchard substation on circuits 23028 and 23029		PEPCO (100%)
b0219	Install two new 230 kV circuits between Palmers Corner and Blue Plains		PEPCO (100%)
b0228	Upgrade Burtonsville – Sandy Springs 230 kV circuit		PEPCO (100%)
b0238.1	Modify Dickerson Station H 230 kV		PEPCO (100%)
b0251	Install 100 MVAR of 230 kV capacitors at Bells Mill		PEPCO (100%)
b0252	Install 100 MVAR of 230 kV capacitors at Bells Mill		PEPCO (100%)
b0288	Brighton Substation – add 2 nd 1000 MVA 500/230 kV transformer, 2 500 kV circuit breakers and miscellaneous bus work		BGE (19.33%) / Dominion (17%) / PEPCO (63.67%)
b0319	Add a second 1000 MVA Bruches Hill 500/230 kV transformer		PEPCO (100%)
b0366	Install a 4 th Ritchie 230/69 kV transformer		PEPCO (100%)
b0367.1	Reconductor circuit “23035” for Dickerson – Quince Orchard 230 kV		AEC (1.78%) / BGE (26.52%) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / NEPTUNE* (0.25%) / PECO (4.79%) / PEPCO (52.46%) / PPL (3.23%) / PSEG (3.81%) / ECP** (0.08%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-9.

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0367.2	Reconductor circuit "23033" for Dickerson – Quince Orchard 230 kV	AEC (1.78%) / BGE (26.52%) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / NEPTUNE* (0.25%) / PECO (4.79%) / PEPCO (52.46%) / PPL (3.23%) / PSEG (3.81%) / ECP** (0.08%)
b0375	Install 0.5% reactor at Dickerson on the Pleasant View – Dickerson 230 kV circuit	AEC (1.02%) / BGE (25.42%) / DPL (2.97%) / ME (1.72%) / PECO (3.47%) / PEPCO (65.40%)
b0467.1	Reconductor the Dickerson – Pleasant View 230 kV circuit	AEC (1.75%) / APS (19.70%) / BGE (22.13%) / DPL (3.70%) / JCPL (0.71%) / ME (2.48%) / NEPTUNE* (0.06%) / PECO (5.54%) / PEPCO (41.86%) / PPL (2.07%)
b0478	Reconductor the four circuits from Burches Hill to Palmers Corner	APS (1.68%) / BGE (1.83%) / PEPCO (96.49%)
b0496	Replace existing 500/230 kV transformer at Brighton	APS (5.67%) / BGE (29.68%) / Dominion (10.91%) / PEPCO (53.74%)
b0499	Install third Burches Hill 500/230 kV transformer	APS (3.54%) / BGE (7.31%) / PEPCO (89.15%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

The Annual Revenue Requirement associated with the Transmission Enhancement Charges are set forth and determined in Appendix A to Attachment H-9.

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.7	Advance n0772 (Replace Chalk Point 230 kV breaker (1A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.8	Advance n0773 (Replace Chalk Point 230 kV breaker (1B) with 80 kA breaker)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)
b0512.9	Advance n0774 (Replace Chalk Point 230 kV breaker (2A) with 80 kA breaker)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.10	Advance n0775 (Replace Chalk Point 230 kV breaker (2B) with 80 kA breaker)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)
b0512.11	Advance n0776 (Replace Chalk Point 230 kV breaker (2C) with 80 kA breaker)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.12	Advance n0777 (Replace Chalk Point 230 kV breaker (3A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.13	Advance n0778 (Replace Chalk Point 230 kV breaker (3B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.14	Advance n0779 (Replace Chalk Point 230 kV breaker (3C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.15	Advance n0780 (Replace Chalk Point 230 kV breaker (4A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.16	Advance n0781 (Replace Chalk Point 230 kV breaker (4B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.17	Advance n0782 (Replace Chalk Point 230 kV breaker (5A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.18	Advance n0783 (Replace Chalk Point 230 kV breaker (5B) with 80 kA breaker)	<div> Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) </div> <div> DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%) </div>
b0512.19	Advance n0784 (Replace Chalk Point 230 kV breaker (6A) with 80 kA breaker)	<div> Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) </div> <div> DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%) </div>

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.20	Advance n0785 (Replace Chalk Point 230 kV breaker (6B) with 80 kA breaker	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)
b0512.21	Advance n0786 (Replace Chalk Point 230 kV breaker (7B) with 80 kA breaker)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.22	Advance n0787 (Replace Chalk Point 230 kV breaker (8A) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.23	Advance n0788 (Replace Chalk Point 230 kV breaker (8B) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.24	Advance n0789 (Replace Chalk Point 230 kV breaker (7A) with 80 kA breaker)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)
b0512.25	Advance n0790 (Replace Chalk Point 230 kV breaker (1C) with 80 kA breaker)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.26	Advance n0791 (Replace Chalk Point 230 kV breaker (4C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.27	Advance n0792 (Replace Chalk Point 230 kV breaker (5C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.28	Advance n0793 (Replace Chalk Point 230 kV breaker (6C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>
b0512.29	Advance n0794 (Replace Chalk Point 230 kV breaker (7C) with 80 kA breaker)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)</p>

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0526	Build two Ritchie – Benning Station A 230 kV lines		AEC (0.77%) / BGE (16.76%) / DPL (1.22%) / JCPL (1.39%) / ME (0.59%) / NEPTUNE* (0.13%) / PECO (2.10%) / PEPCO (74.86%) / PSEG (2.10%) / RE (0.08%)
b0561	Install 300 MVAR capacitor at Dickerson Station “D” 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0562	Install 500 MVAR capacitor at Brighton 230 kV substation		AEC (8.58%) / APS (1.69%) / DPL (12.24%) / JCPL (18.16%) / ME (1.55%) / NEPTUNE* (1.77%) / PECO (21.78%) / PPL (6.40%) / ECP** (0.73%) / PSEG (26.13%) / RE (0.97%)
b0637	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0638	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0639	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0640	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0641	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0642	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0643	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0644	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0645	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0646	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0647	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0648	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)
b0649	Replace 13 Oak Grove 230 kV breakers		PEPCO (100%)

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Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0701	Expand Benning 230 kV station, add a new 250 MVA 230/69 kV transformer at Benning Station 'A', new 115 kV Benning switching station	BGE (30.57%) / PEPCO (69.43%)
b0702	Add a second 50 MVAR 230 kV shunt reactor at the Benning 230 kV substation	PEPCO (100%)
b0720	Upgrade terminal equipment on both lines	PEPCO (100%)
b0721	Upgrade Oak Grove – Ritchie 23061 230 kV line	PEPCO (100%)
b0722	Upgrade Oak Grove – Ritchie 23058 230 kV line	PEPCO (100%)
b0723	Upgrade Oak Grove – Ritchie 23059 230 kV line	PEPCO (100%)
b0724	Upgrade Oak Grove – Ritchie 23060 230 kV line	PEPCO (100%)
b0730	Add slow oil circulation to the four Bells Mill Road – Bethesda 138 kV lines, add slow oil circulation to the two Buzzard Point – Southwest 138 kV lines; increasing the thermal ratings of these six lines allows for greater adjustment of the O Street phase shifters	PEPCO (100%)

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0731	Implement an SPS to automatically shed load on the 34 kV Bells Mill Road bus for this N-2 condition. The SPS will be in effect for 2013 and 2014 until a third Bells Mill 230/34 kV is placed in-service in 2015	PEPCO (100%)
b0746	Upgrade circuit for 3,000 amps using the ACCR	AEC (0.73%) / BGE (31.05%) / DPL (1.45%) / PECO (2.46%) / PEPCO (62.88%) / PPL (1.43%)
b0747	Upgrade terminal equipment on both lines: Quince Orchard - Bells Mill 230 kV (030) and (028)	PEPCO (100%)
b0802	Advance n0259 (Replace Dickerson Station H Circuit Breaker 412A)	PEPCO (100%)
b0803	Advance n0260 (Replace Dickerson Station H Circuit Breaker 42A)	PEPCO (100%)
b0804	Advance n0261 (Replace Dickerson Station H Circuit Breaker 42C)	PEPCO (100%)
b0805	Advance n0262 (Replace Dickerson Station H Circuit Breaker 43A)	PEPCO (100%)
b0806	Advance n0264 (Replace Dickerson Station H Circuit Breaker 44A)	PEPCO (100%)

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0809 Advance n0267 (Replace Dickerson Station H Circuit Breaker 45B)		PEPCO (100%)
b0810 Advance n0270 (Replace Dickerson Station H Circuit Breaker 47A)		PEPCO (100%)
b0811 Advance n0726 (Replace Dickerson Station H Circuit Breaker SPARE)		PEPCO (100%)
b0845 Replace Chalk Point 230 kV breaker (1A) with 80 kA breaker		PEPCO (100%)
b0846 Replace Chalk Point 230 kV breaker (1B) with 80 kA breaker		PEPCO (100%)
b0847 Replace Chalk Point 230 kV breaker (2A) with 80 kA breaker		PEPCO (100%)
b0848 Replace Chalk Point 230 kV breaker (2B) with 80 kA breaker		PEPCO (100%)
b0849 Replace Chalk Point 230 kV breaker (2C) with 80 kA breaker		PEPCO (100%)
b0850 Replace Chalk Point 230 kV breaker (3A) with 80 kA breaker		PEPCO (100%)
b0851 Replace Chalk Point 230 kV breaker (3B) with 80 kA breaker		PEPCO (100%)
b0852 Replace Chalk Point 230 kV breaker (3C) with 80 kA breaker		PEPCO (100%)
b0853 Replace Chalk Point 230 kV breaker (4A) with 80 kA breaker		PEPCO (100%)
b0854 Replace Chalk Point 230 kV breaker (4B) with 80 kA breaker		PEPCO (100%)
b0855 Replace Chalk Point 230 kV breaker (5A) with 80 kA breaker		PEPCO (100%)

Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0856	Replace Chalk Point 230 kV breaker (5B) with 80 kA breaker		PEPCO (100%)
b0857	Replace Chalk Point 230 kV breaker (6A) with 80 kA breaker		PEPCO (100%)
b0858	Replace Chalk Point 230 kV breaker (6B) with 80 kA breaker		PEPCO (100%)
b0859	Replace Chalk Point 230 kV breaker (7B) with 80 kA breaker		PEPCO (100%)
b0860	Replace Chalk Point 230 kV breaker (8A) with 80 kA breaker		PEPCO (100%)
b0861	Replace Chalk Point 230 kV breaker (8B) with 80 kA breaker		PEPCO (100%)
b0862	Replace Chalk Point 230 kV breaker (7A) with 80 kA breaker		PEPCO (100%)
b0863	Replace Chalk Point 230 kV breaker (1C) with 80 kA breaker		PEPCO (100%)
b1104	Replace Burtonsville 230 kV breaker '1C'		PEPCO (100%)
b1105	Replace Burtonsville 230 kV breaker '2C'		PEPCO (100%)
b1106	Replace Burtonsville 230 kV breaker '3C'		PEPCO (100%)
b1107	Replace Burtonsville 230 kV breaker '4C'		PEPCO (100%)
b1125	Convert the 138 kV line from Buzzard 138 - Ritchie 851 to a 230 kV line and Remove 230/138 kV Transformer at Ritchie and install a spare 230/138 kV transformer at Buzzard Pt		APS (4.74%) / PEPCO (95.26%)
b1126	Upgrade the 230 kV line from Buzzard 016 – Ritchie 059		APS (4.74%) / PEPCO (95.26%)

Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1592	Reconductor the Oak Grove – Bowie 230 kV circuit and upgrade terminal equipments at Oak Grove and Bowie 230 kV substations		AEC (2.39%) / APS (3.82%) / BGE (65.72%) / DPL (4.43%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.35%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1593	Reconductor the Bowie - Burtonsville 230 kV circuit and upgrade terminal equipments at Bowie and Burtonsville 230 kV substations		AEC (2.39%) / APS (3.82%) / BGE (65.72%) / DPL (4.43%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.35%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1594	Reconductor the Oak Grove – Bowie 230 kV ‘23042’ circuit and upgrade terminal equipments at Oak Grove and Bowie 230 kV substations		AEC (2.38%) / APS (3.84%) / BGE (65.72%) / DPL (4.44%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.33%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1595	Reconductor the Bowie – Burtonsville 230 kV ‘23042’ circuit and upgrade terminal equipments at Oak Grove and Burtonsville 230 kV substations		AEC (2.38%) / APS (3.84%) / BGE (65.72%) / DPL (4.44%) / JCPL (3.93%) / ME (2.16%) / NEPTUNE* (0.39%) / HTP*** (0.10%) / PECO (8.33%) / PPL (2.83%) / ECP** (0.13%) / PSEG (5.53%) / RE (0.22%)
b1596	Reconductor the Dickerson station “H” – Quince Orchard 230 kV ‘23032’ circuit and upgrade terminal equipments at Dickerson station “H” and Quince Orchard 230 kV substations		AEC (0.80%) / BGE (33.68%) / DPL (2.09%) / PECO (3.07%) / PEPCO (60.36%)

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**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1597	Reconductor the Oak Grove - Aquasco 230 kV '23062' circuit and upgrade terminal equipments at Oak Grove and Aquasco 230 kV substations		AEC (1.44%) / BGE (48.60%) / DPL (2.52%) / PECO (5.00%) / PEPCO (42.44%)
b2008	Reconductor feeder 23032 and 23034 to high temp. conductor (10 miles)		BGE (33.05%) / DPL (1.38%) / PECO (1.35%) / PEPCO (64.22%) /
b2136	Reconductor the Morgantown - V3-017 230 kV '23086' circuit and replace terminal equipments at Morgantown		PEPCO (100%)
b2137	Reconductor the Morgantown - Talbert 230 kV '23085' circuit and replace terminal equipment at Morgantown		PEPCO (100%)
b2138	Replace terminal equipments at Hawkins 230 kV substation		PEPCO (100%)

SCHEDULE 12 – APPENDIX

(12) Public Service Electric and Gas Company

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0025	Convert the Bergen-Leonia 138 kV circuit to 230 kV circuit.		PSEG (100%)
b0090	Add 150 MVAR capacitor at Camden 230 kV		PSEG (100%)
b0121	Add 150 MVAR capacitor at Aldene 230 kV		PSEG (100%)
b0122	Bypass the Essex 138 kV series reactors		PSEG (100%)
b0125	Add Special Protection Scheme at Bridgewater to automatically open 230 kV breaker for outage of Branchburg – Deans 500 kV and Deans 500/230 kV #1 transformer		PSEG (100%)
b0126	Replace wavetrap on Branchburg – Flagtown 230 kV		PSEG (100%)
b0127	Replace terminal equipment to increase Brunswick – Adams – Bennetts Lane 230 kV to conductor rating		PSEG (100%)
b0129	Replace wavetrap on Flagtown – Somerville 230 kV		PSEG (100%)
b0130	Replace all derated Branchburg 500/230 kV transformers		AEC (1.36%) / JCPL (47.76%) / PSEG (50.88%)
b0134	Upgrade or Retension PSEG portion of Kittatinny – Newton 230 Kv circuit		JCPL (51.11%) / PSEG (45.96%) / RE (2.93%)

The Annual Revenue Requirement for all Public Service Electric and Gas Company Projects (Required Transmission Enhancements) in this Section 12 shall be as specified in Attachment 7 of Attachment H-10A and under the procedures detailed in Attachment H-10B.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0145	Build new Essex – Aldene 230 kV cable connected through a phase angle regulator at Essex		PSEG (21.78%) / JCPL (73.45%) / RE (4.77%)
b0157	Add 100 MVAR capacitor at West Orange 138 kV substation		PSEG (100%)
b0158	Close the Sunnymeade "C" and "F" bus tie		PSEG (100%)
b0159	Make the Bayonne reactor permanent installation		PSEG (100%)
b0160	Relocate the X-2250 circuit from Hudson 1-6 bus to Hudson 7-12 bus		PSEG (100%)
b0161	Install 230/138 kV transformer at Metuchen substation		PSEG (99.80%) / RE (0.20%)
b0162	Upgrade the Edison – Meadow Rd 138 kV “Q” circuit		PSEG (100%)
b0163	Upgrade the Edison – Meadow Rd 138 kV “R” circuit		PSEG (100%)
b0169	Build a new 230 kV section from Branchburg – Flagtown and move the Flagtown – Somerville 230 kV circuit to the new section		AEC (1.72%) / JCPL (25.94%) / NEPTUNE* (10.62%) / PSEG (59.59%) / ECP** (2.13%)
b0170	Reconductor the Flagtown-Somerville-Bridgewater 230 kV circuit with 1590 ACSS		JCLP (42.95%) / NEPTUNE* (17.90%) / PSEG (38.36%) RE (0.79%)

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**East Coast Power, L.L.C.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0172.2	Replace wave trap at Branchburg 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (8.24%) / JCPL (30.19%) / NEPTUNE* (4.85%) / PSEG (54.60%) / RE (2.12%)</p>
b0184	Replace Hudson 230 kV circuit breakers #1-2	PSEG (100%)
b0185	Replace Deans 230 kV circuit breakers #9-10	PSEG (100%)
b0186	Replace Essex 230 kV circuit breaker #5-6	PSEG (100%)
b1082	Install 230/138 kV transformer at Bergen substation	PENELEC (16.52%) / PSEG (80.29%) / RE (3.19%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0201	Branchburg substation: replace wave trap on Branchburg–Readington 230 kV circuit	PSEG (100%)
b0213.1	Replace New Freedom 230 kV breaker BS2-6	PSEG (100%)
b0213.3	Replace New Freedom 230 kV breaker BS2-8	PSEG (100%)
b0274	Replace both 230/138 kV transformers at Roseland	PSEG (96.77%) / ECP** (3.23%)
b0275	Upgrade the two 138 kV circuits between Roseland and West Orange	PSEG (100%)
b0278	Install 228 MVAR capacitor at Roseland 230 kV substation	PSEG (100%)
b0290	Install 400 MVAR capacitor in the Branchburg 500 kV vicinity	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (8.24%) / JCPL (30.19%) / NEPTUNE* (4.85%) / PSEG (54.60%) / RE (2.12%)
b0358	Reconductor the PSEG portion of Buckingham – Pleasant Valley 230 kV, replace wave trap and metering transformer	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0368	Reconductor Tosco – G22_MTX 230 kV circuit with 1033 bundled ACSS		PSEG (100%)
b0371	Make the Metuchen 138 kV bus solid and upgrade 6 breakers at the Metuchen substation		PSEG (100%)
b0372	Make the Athenia 138 kV bus solid and upgrade 2 breakers at the Athenia substation		PSEG (100%)
b0395	Replace Hudson 230 kV breaker BS4-5		PSEG (100%)
b0396	Replace Hudson 230 kV breaker BS1-6		PSEG (100%)
b0397	Replace Hudson 230 kV breaker BS3-4		PSEG (100%)
b0398	Replace Hudson 230 kV breaker BS5-6		PSEG (100%)
b0401.1	Replace Roseland 230 kV breaker BS6-7		PSEG (100%)
b0401.2	Replace Roseland 138 kV breaker O-1315		PSEG (100%)
b0401.3	Replace Roseland 138 kV breaker S-1319		PSEG (100%)
b0401.4	Replace Roseland 138 kV breaker T-1320		PSEG (100%)
b0401.5	Replace Roseland 138 kV breaker G-1307		PSEG (100%)
b0401.6	Replace Roseland 138 kV breaker P-1316		PSEG (100%)
b0401.7	Replace Roseland 138 kV breaker 220-4		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0401.8	Replace W. Orange 138 kV breaker 132-4	PSEG (100%)
b0411	Install 4 th 500/230 kV transformer at New Freedom	AEC (47.01%) / JCPL (7.04%) / NEPTUNE* (0.28%) / PECO (23.36%) / PSEG (22.31%)
b0423	Reconductor Readington (2555) – Branchburg (4962) 230 kV circuit w/1590 ACSS	PSEG (100%)
b0424	Replace Readington wavetrapp on Readington (2555) – Roseland (5017) 230 kV circuit	PSEG (100%)
b0425	Reconductor Linden (4996) – Tosco (5190) 230 kV circuit w/1590 ACSS (Assumes operating at 220 degrees C)	PSEG (100%)
b0426	Reconductor Tosco (5190) – G22_MTX5 (90220) 230 kV circuit w/1590 ACSS (Assumes operation at 220 degrees C)	PSEG (100%)
b0427	Reconductor Athenia (4954) – Saddle Brook (5020) 230 kV circuit river section	PSEG (100%)
b0428	Replace Roseland wavetrapp on Roseland (5019) – West Caldwell “G” (5089) 138 kV circuit	PSEG (100%)
b0429	Reconductor Kittatinny (2553) – Newton (2535) 230 kV circuit w/1590 ACSS	JCPL (41.91%) / NEPTUNE* (3.59%) / PSEG (50.59%) / RE (2.23%) / ECP** (1.68%)
b0439	Spare Deans 500/230 kV transformer	PSEG (100%)
b0446.1	Upgrade Bayway 138 kV breaker #2-3	PSEG (100%)
b0446.2	Upgrade Bayway 138 kV breaker #3-4	PSEG (100%)
b0446.3	Upgrade Bayway 138 kV breaker #6-7	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0446.4	Upgrade the breaker associated with TX 132-5 on Linden 138 kV	PSEG (100%)
b0470	Install 138 kV breaker at Roseland and close the Roseland 138 kV buses	PSEG (100%)
b0471	Replace the wave traps at both Lawrence and Pleasant Valley on the Lawrence – Pleasant Vallen 230 kV circuit	PSEG (100%)
b0472	Increase the emergency rating of Saddle Brook – Athenia 230 kV by 25% by adding forced cooling	ECP** (2.06%) / PSEG (94.41%) / RE (3.53%)
b0473	Move the 150 MVAR mobile capacitor from Aldene 230 kV to Lawrence 230 kV substation	PSEG (100%)
b0489	Build new 500 kV transmission facilities from Pennsylvania – New Jersey border at Bushkill to Roseland	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)†
		DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

†Cost allocations associated with Regional Facilities and Necessary Lower Voltage Facilities associated with the project

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0489.1	Replace Athenia 230 kV breaker 31H		PSEG (100%)
b0489.2	Replace Bergen 230 kV breaker 10H		PSEG (100%)
b0489.3	Replace Saddlebrook 230 kV breaker 21P		PSEG (100%)
b0489.4	Install two Roseland 500/230 kV transformers as part of the Susquehanna – Roseland 500 kV project		AEC (5.09%) / ComEd (0.29%) / Dayton (0.03%) / DPL (1.76%) / JCPL (32.73%) / NEPTUNE* (6.32%) / PECO (10.04%) / PENELEC (0.56%) / ECP** (0.95%) / PSEG (40.71%) / RE (1.52%) ††
b0489.5	Replace Roseland 230 kV breaker '42H' with 80 kA		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)

* Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

††Cost allocations associated with below 500 kV elements of the project

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.6	Replace Roseland 230 kV breaker '51H' with 80 kA	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)
b0489.7	Replace Roseland 230 kV breaker '71H' with 80 kA	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.8	Replace Roseland 230 kV breaker '31H' with 80 kA	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.9	Replace Roseland 230 kV breaker '11H' with 80 kA	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)</p>
b0489.10	Replace Roseland 230 kV breaker '21H'	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)</p>

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.11	Replace Roseland 230 kV breaker '32H'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)
b0489.12	Replace Roseland 230 kV breaker '12H'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.13	Replace Roseland 230 kV breaker '52H'	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)</p>
b0489.14	Replace Roseland 230 kV breaker '41H'	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)</p>

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0489.15	Replace Roseland 230 kV breaker '72H'	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: JCPL (36.99%) / NEPTUNE* (3.95%) / PSEG (56.85%) / RE (2.21%)</p>
b0498	Loop the 5021 circuit into New Freedom 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (12.09%) / JCPL (23.99%) / NEPTUNE* (2.84%) / PECO (17.51%) / PSEG (41.94%) / RE (1.63%)</p>

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0498.1	Upgrade the 20H circuit breaker		PSEG (100%)
b0498.2	Upgrade the 22H circuit breaker		PSEG (100%)
b0498.3	Upgrade the 30H circuit breaker		PSEG (100%)
b0498.4	Upgrade the 32H circuit breaker		PSEG (100%)
b0498.5	Upgrade the 40H circuit breaker		PSEG (100%)
b0498.6	Upgrade the 42H circuit breaker		PSEG (100%)
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0565	Install 100 MVAR capacitor at Cox's Corner 230 kV substation		PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0578	Replace Essex 138 kV breaker 4LM (C1355 line to ECRRF)		PSEG (100%)
b0579	Replace Essex 138 kV breaker 1LM (220-1 TX)		PSEG (100%)
b0580	Replace Essex 138 kV breaker 1BM (BS1-3 tie)		PSEG (100%)
b0581	Replace Essex 138 kV breaker 2BM (BS3-4 tie)		PSEG (100%)
b0582	Replace Linden 138 kV breaker 3 (132-7 TX)		PSEG (100%)
b0592	Replace Metuchen 138 kV breaker '2-2 Transfer'		PSEG (100%)
b0664	Reconductor with 2x1033 ACSS conductor		JCPL (36.35%) / NEPTUNE* (18.80%) / PSEG (43.24%) / RE (1.61%)
b0665	Reconductor with 2x1033 ACSS conductor		JCPL (36.35%) / NEPTUNE* (18.80%) / PSEG (43.24%) / RE (1.61%)
b0668	Reconductor with 2x1033 ACSS conductor		JCPL (39.41%) / NEPTUNE* (20.38%) / PSEG (38.76%) / RE (1.45%)
b0671	Replace terminal equipment at both ends of line		PSEG (100%)
b0743	Add a bus tie breaker at Roseland 138 kV		PSEG (100%)
b0812	Increase operating temperature on line for one year to get 925E MVA rating		PSEG (100%)
b0813	Reconductor Hudson – South Waterfront 230 kV circuit		BGE (1.25%) / JCPL (9.92%) / NEPTUNE* (0.87%) / PEPCO (1.11%) / PSEG (83.73%) / RE (3.12%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0814	New Essex – Kearney 138 kV circuit and Kearney 138 kV bus tie		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.1	Replace Kearny 138 kV breaker '1-SHT' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.2	Replace Kearny 138 kV breaker '15HF' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.3	Replace Kearny 138 kV breaker '14HF' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.4	Replace Kearny 138 kV breaker '10HF' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.5	Replace Kearny 138 kV breaker '2HT' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.6	Replace Kearny 138 kV breaker '22HF' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.7	Replace Kearny 138 kV breaker '4HT' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.8	Replace Kearny 138 kV breaker '25HF' with 80 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.9	Replace Essex 138 kV breaker '2LM' with 63 kA breaker and 2.5 cycle contact parting time		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0814.10	Replace Essex 138 kV breaker '1BT' with 63 kA breaker and 2.5 cycle contact parting time	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.11	Replace Essex 138 kV breaker '2PM' with 63 kA breaker and 2.5 cycle contact parting time	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.12	Replace Marion 138 kV breaker '2HM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.13	Replace Marion 138 kV breaker '2LM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.14	Replace Marion 138 kV breaker '1LM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.15	Replace Marion 138 kV breaker '6PM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.16	Replace Marion 138 kV breaker '3PM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.17	Replace Marion 138 kV breaker '4LM' with 63 kA breaker	JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0814.18	Replace Marion 138 kV breaker '3LM' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.19	Replace Marion 138 kV breaker '1HM' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.20	Replace Marion 138 kV breaker '2PM3' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.21	Replace Marion 138 kV breaker '2PM1' with 63 kA breaker		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.22	Replace ECRR 138 kV breaker '903'		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.23	Replace Foundry 138 kV breaker '21P'		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.24	Change the contact parting time on Essex 138 kV breaker '3LM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.25	Change the contact parting time on Essex 138 kV breaker '2BM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0814.26 Change the contact parting time on Essex 138 kV breaker '1BM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.27 Change the contact parting time on Essex 138 kV breaker '3PM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.28 Change the contact parting time on Essex 138 kV breaker '4LM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.29 Change the contact parting time on Essex 138 kV breaker '1PM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)
b0814.30 Change the contact parting time on Essex 138 kV breaker '1LM' to 2.5 cycles		JCPL (23.49%) / NEPTUNE* (1.61%) / PENELEC (5.37%) / PSEG (67.03%) / RE (2.50%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0829	Build Branchburg to Roseland 500 kV circuit as part of Branchburg – Hudson 500 kV project	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0829.6	Replace Branchburg 500 kV breaker 91X	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (96.26%) / RE (3.74%)
b0829.9	Replace Branchburg 230 kV breaker 102H	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0829.11	Replace Branchburg 230 kV breaker 32H		PSEG (100%)
b0829.12	Replace Branchburg 230 kV breaker 52H		PSEG (100%)
b0830	Build Roseland - Hudson 500 kV circuit as part of Branchburg – Hudson 500 kV project		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0830.1	Replace Roseland 230 kV breaker '82H' with 80 kA		PSEG (100%)
b0830.2	Replace Roseland 230 kV breaker '91H' with 80 kA		PSEG (100%)
b0830.3	Replace Roseland 230 kV breaker '22H' with 80 kA		PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b0831	Replace 138/13 kV transformers with 230/13 kV units as part of Branchburg – Hudson 500 kV project		ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0832	Build Hudson 500 kV switching station as part of Branchburg – Hudson 500 kV project		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0833	Build Roseland 500 kV switching station as part of Branchburg – Hudson 500 kV project		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0834	Convert the E-1305/F-1306 to one 230 kV circuit as part of Branchburg – Hudson 500 kV project	ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0835	Build Hudson 230 kV transmission lines as part of Roseland – Hudson 500 kV project as part of Branchburg – Hudson 500 kV project	ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0836	Install transformation at new Hudson 500 kV switching station and perform Hudson 230 kV and 345 kV station work as part of Branchburg – Hudson 500 kV project	ComEd (2.51%) / Dayton (0.09%) / PENELEC (2.75%) / ECP** (2.45%) / PSEG (88.74%) / RE (3.46%)
b0882	Replace Hudson 230 kV breaker 1HA with 80 kA	PSEG (100%)
b0883	Replace Hudson 230 kV breaker 2HA with 80 kA	PSEG (100%)
b0884	Replace Hudson 230 kV breaker 3HB with 80 kA	PSEG (100%)
b0885	Replace Hudson 230 kV breaker 4HA with 80 kA	PSEG (100%)
b0886	Replace Hudson 230 kV breaker 4HB with 80 kA	PSEG (100%)
b0889	Replace Bergen 230 kV breaker '21H'	PSEG (100%)
b0890	Upgrade New Freedom 230 kV breaker '21H'	PSEG (100%)
b0891	Upgrade New Freedom 230 kV breaker '31H'	PSEG (100%)
b0899	Replace ECRR 138 kV breaker 901	PSEG (100%)
b0900	Replace ECRR 138 kV breaker 902	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1013	Replace Linden 138 kV breaker '7PB'	PSEG (100%)
b1017	Reconductor South Mahwah - Waldwick 345 kV J-3410 circuit	JCPL (29.01%) / NEPTUNE* (2.74%) / PSEG (64.85%) / RE (2.53%) / ECP** (0.87%)
b1018	Reconductor South Mahwah - Waldwick 345 kV K-3411 circuit	JCPL (29.18%) / NEPTUNE* (2.74%) / PSEG (64.68%) / RE (2.53%) / ECP** (0.87%)
b1019.1	Replace wave trap, line disconnect and ground switch at Roseland on the F-2206 circuit	PSEG (100%)
b1019.2	Replace wave trap, line disconnect and ground switch at Roseland on the B-2258 circuit	PSEG (100%)
b1019.3	Replace 1-2 and 2-3 section disconnect and ground switches at Cedar Grove on the F-2206 circuit	PSEG (100%)
b1019.4	Replace 1-2 and 2-3 section disconnect and ground switches at Cedar Grove on the B-2258 circuit	PSEG (100%)
b1019.5	Replace wave trap, line disconnect and ground switch at Cedar Grove on the F-2206 circuit	PSEG (100%)
b1019.6	Replace line disconnect and ground switch at Cedar Grove on the K-2263 circuit	PSEG (100%)

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**East Coast Power, L.L.C.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b1019.7	Replace 2-4 and 4-5 section disconnect and ground switches at Clifton on the B-2258 circuit		PSEG (100%)
b1019.8	Replace 1-2 and 2-3 section disconnect and ground switches at Clifton on the K-2263 circuit		PSEG (100%)
b1019.9	Replace line, ground, 230 kV main bus disconnects at Athenia on the B-2258 circuit		PSEG (100%)
b1019.10	Replace wave trap, line, ground 230 kV breaker disconnect and 230 kV main bus disconnects at Athenia on the K-2263 circuit		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1082.1	Replace Bergen 138 kV breaker '30P' with 80 kA		PSEG (100%)
b1082.2	Replace Bergen 138 kV breaker '80P' with 80 kA		PSEG (100%)
b1082.3	Replace Bergen 138 kV breaker '70P' with 80 kA		PSEG (100%)
b1082.4	Replace Bergen 138 kV breaker '90P' with 63 kA		PSEG (100%)
b1082.5	Replace Bergen 138 kV breaker '50P' with 63 kA		PSEG (100%)
b1082.6	Replace Bergen 230 kV breaker '12H' with 80 kA		PSEG (100%)
b1082.7	Replace Bergen 230 kV breaker '21H' with 80 kA		PSEG (100%)
b1082.8	Replace Bergen 230 kV breaker '11H' with 80 kA		PSEG (100%)
b1082.9	Replace Bergen 230 kV breaker '20H' with 80 kA		PSEG (100%)
b1098	Re-configure the Bayway 138 kV substation and install three new 138 kV breakers		PSEG (100%)
b1099	Build a new 230 kV substation by tapping the Aldene – Essex circuit and install three 230/26 kV transformers, and serve some of the Newark area load from the new station		PSEG (100%)
b1100	Build a new 138 kV circuit from Bayonne to Marion		PSEG (100%)
b1101	Re-configure the Cedar Grove substation with breaker and half scheme and build a new 69 kV circuit from Cedar Grove to Hinchman		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1154	Convert the West Orange 138 kV substation, the two Roseland – West Orange 138 kV circuits, and the Roseland – Sewaren 138 kV circuit from 138 kV to 230 kV	PSEG (96.18%) / RE (3.82%)
b1155	Build a new 230 kV circuit from Branchburg to Middlesex Sw. Rack. Build a new 230 kV substation at Middlesex	JCPL (4.61%) / PSEG (91.75%) / RE (3.64%)
b1155.3	Replace Branchburg 230 kV breaker '81H' with 63 kA	PSEG (100%)
b1155.4	Replace Branchburg 230 kV breaker '72H' with 63 kA	PSEG (100%)
b1155.5	Replace Branchburg 230 kV breaker '61H' with 63 kA	PSEG (100%)
b1155.6	Replace Branchburg 230 kV breaker '41H' with 63 kA	PSEG (100%)
b1156	Convert the Burlington, Camden, and Cuthbert Blvd 138 kV substations, the 138 kV circuits from Burlington to Camden, and the 138 kV circuit from Camden to Cuthbert Blvd. from 138 kV to 230 kV	PSEG (96.18%) / RE (3.82%)
b1156.13	Replace Camden 230 kV breaker '22H' with 80 kA	PSEG (100%)
b1156.14	Replace Camden 230 kV breaker '32H' with 80 kA	PSEG (100%)
b1156.15	Replace Camden 230 kV breaker '21H' with 80 kA	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1156.16	Replace New Freedom 230 kV breaker '50H' with 63 kA		PSEG (100%)
b1156.17	Replace New Freedom 230 kV breaker '41H' with 63 kA		PSEG (100%)
b1156.18	Replace New Freedom 230 kV breaker '51H' with 63 kA		PSEG (100%)
b1156.19	Rebuild Camden 230 kV to 80 kA		PSEG (100%)
b1156.20	Rebuild Burlington 230 kV to 80 kA		PSEG (100%)
b1197.1	Reconductor the PSEG portion of the Burlington – Croydon circuit with 1590 ACSS		PSEG (100%)
b1228	Re-configure the Lawrence 230 kV substation to breaker and half		HTP*** (0.14%) / ECP** (0.22%) / PSEG (95.83%) / RE (3.81%)
b1255	Build a new 69 kV substation (Ridge Road) and build new 69 kV circuits from Montgomery – Ridge Road – Penns Neck/Dow Jones		PSEG (96.18%) / RE (3.82%)
b1304.1	Convert the existing 'D1304' and 'G1307' 138 kV circuits between Roseland – Kearny – Hudson to 230 kV operation		AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1304.2	Expand existing Bergen 230 kV substation and reconfigure the Athenia 230 kV substation to breaker and a half scheme	AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)
b1304.3	Build second 230 kV underground cable from Bergen to Athenia	AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)
b1304.4	Build second 230 kV underground cable from Hudson to South Waterfront	AEC (0.23%) / BGE (0.97%) / ComEd (2.32%) / Dayton (0.13%) / JCPL (1.17%) / NEPTUNE* (0.07%) / HTP*** (16.05%) / PENELEC (2.97%) / PEPCO (1.04%) / ECP** (2.11%) / PSEG (70.16%) / RE (2.78%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1304.5	Replace Athenia 230 kV breaker '21H' with 80 kA		PSEG (100%)
b1304.6	Replace Athenia 230 kV breaker '41H' with 80 kA		PSEG (100%)
b1304.7	Replace South Waterfront 230 kV breaker '12H' with 80 kA		PSEG (100%)
b1304.8	Replace South Waterfront 230 kV breaker '22H' with 80 kA		PSEG (100%)
b1304.9	Replace South Waterfront 230 kV breaker '32H' with 80 kA		PSEG (100%)
b1304.10	Replace South Waterfront 230 kV breaker '52H' with 80 kA		PSEG (100%)
b1304.11	Replace South Waterfront 230 kV breaker '62H' with 80 kA		PSEG (100%)
b1304.12	Replace South Waterfront 230 kV breaker '72H' with 80 kA		PSEG (100%)
b1304.13	Replace South Waterfront 230 kV breaker '82H' with 80 kA		PSEG (100%)
b1304.14	Replace Essex 230 kV breaker '20H' with 80 kA		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1304.15	Replace Essex 230 kV breaker '21H' with 80 kA		PSEG (100%)
b1304.16	Replace Essex 230 kV breaker '10H' with 80 kA		PSEG (100%)
b1304.17	Replace Essex 230 kV breaker '11H' with 80 kA		PSEG (100%)
b1304.18	Replace Essex 230 kV breaker '11HL' with 80 kA		PSEG (100%)
b1304.19	Replace Newport R 230 kV breaker '23H' with 63 kA		PSEG (100%)
b1304.20	Rebuild Athenia 230 kV substation to 80 kA		PSEG (100%)
b1304.21	Rebuild Bergen 230 kV substation to 80 kA		PSEG (100%)
b1398	Build two new parallel underground circuits from Gloucester to Camden		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.1	Install shunt reactor at Gloucester to offset cable charging		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.2	Reconfigure the Cuthbert station to breaker and a half scheme		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.3	Build a second 230 kV parallel overhead circuit from Mickelton – Gloucester		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1398.4	Reconductor the existing Mickleton – Gloucester 230 kV circuit (PSEG portion)		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.7	Reconductor the Camden – Richmond 230 kV circuit (PSEG portion) and upgrade terminal equipments at Camden substations		JCPL (12.82%) / NEPTUNE* (1.18%) / HTP*** (0.79%) / PECO (51.08%) / PEPCO (0.57%) / ECP** (0.85%) / PSEG (31.46%) / RE (1.25%)
b1398.15	Replace Gloucester 230 kV breaker '21H' with 63 kA		PSEG (100%)
b1398.16	Replace Gloucester 230 kV breaker '51H' with 63 kA		PSEG (100%)
b1398.17	Replace Gloucester 230 kV breaker '56H' with 63 kA		PSEG (100%)
b1398.18	Replace Gloucester 230 kV breaker '26H' with 63 kA		PSEG (100%)
b1398.19	Replace Gloucester 230 kV breaker '71H' with 63 kA		PSEG (100%)
b1399	Convert the 138 kV path from Aldene – Springfield Rd. – West Orange to 230 kV		PSEG (96.18%) / RE (3.82%)
b1400	Install 230 kV circuit breakers at Bennetts Ln. “F” and “X” buses		PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1410	Replace Salem 500 kV breaker '11X'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (96.26%) / RE (3.74%)
b1411	Replace Salem 500 kV breaker '12X'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (96.26%) / RE (3.74%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1412	Replace Salem 500 kV breaker '20X'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (96.26%) / RE (3.74%)
b1413	Replace Salem 500 kV breaker '21X'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (96.26%) / RE (3.74%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1414	Replace Salem 500 kV breaker '31X'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (96.26%) / RE (3.74%)
b1415	Replace Salem 500 kV breaker '32X'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (96.26%) / RE (3.74%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1539	Replace Tosco 230 kV breaker 'CB1' with 63 kA		PSEG (100%)
b1540	Replace Tosco 230 kV breaker 'CB2' with 63 kA		PSEG (100%)
b1541	Open the Hudson 230 kV bus tie		PSEG (100%)
b1588	Reconductor the Eagle Point - Gloucester 230 kV circuit #1 and #2 with higher conductor rating		JCPL (10.31%) / NEPTUNE* (0.98%) / HTP*** (0.75%) / PECO (30.81%) / ECP** (0.82%) / PSEG (54.17%) / RE (2.16%)
b1589	Re-configure the Kearny 230 kV substation and loop the P-2216-1 (Essex - NJT Meadows) 230 kV circuit		ATSI (8.00%) / HTP*** (20.18%) / PENELEC (7.77%) / PSEG (61.59%) / RE (2.46%)
b1590	Upgrade the PSEG portion of the Camden Richmond 230 kV circuit to six wire conductor and replace terminal equipment at Camden		BGE (3.05%) / ME (0.83%) / HTP*** (0.21%) / PECO (91.36%) / PEPCO (1.93%) / PPL (2.46%) / ECP** (0.16%)
b1749	Advance n1237 (Replace Essex 230 kV breaker '22H' with 80kA)		PSEG (100%)
b1750	Advance n0666.5 (Replace Hudson 230 kV breaker '1HB' with 80 kA (without TRV cap, so actually 63 kA))		PSEG (100%)
b1751	Advance n0666.3 (Replace Hudson 230 kV breaker '2HA' with 80 kA (without TRV cap, so actually 63 kA))		PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1752	Advance n0666.10 (Replace Hudson 230 kV breaker '2HB' with 80 kA (without TRV cap, so actually 63 kA))		PSEG (100%)
b1753	Marion 138 kV breaker '7PM' - delay the relay time to increase the contact parting time to 2.5 cycles		PSEG (100%)
b1754	Marion 138 kV breaker '3PM' - delay the relay time to increase the contact parting time to 2.5 cycles		PSEG (100%)
b1755	Marion 138 kV breaker '6PM' - delay the relay time to increase the contact parting time to 2.5 cycles		PSEG (100%)
b1787	Build a second 230 kV circuit from Cox's Corner - Lumberton		AEC (4.96%) / JCPL (44.20%) / NEPTUNE* (0.53%) / HTP*** (0.15%) / ECP** (0.16%) / PSEG (48.08%) / RE (1.92%)
b2034	Install a reactor along the Kearny - Essex 138 kV line		PSEG (100%)
b2035	Replace Sewaren 138 kV breaker '11P'		PSEG (100%)
b2036	Replace Sewaren 138 kV breaker '21P'		PSEG (100%)
b2037	Replace PVSC 138 kV breaker '452'		PSEG (100%)
b2038	Replace PVSC 138 kV breaker '552'		PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2039	Replace Bayonne 138 kV breaker '11P'		PSEG (100%)
b2139	Reconductor the Mickleton - Gloucester 230 kV parallel circuits with double bundle conductor		PSEG (61.11%) / PECO (36.45%) / RE (2.44%)
b2146	Re-configure the Brunswick 230 kV and 69 kV substations		PSEG (96.16%) / RE (3.84%)
b2151	Construct Jackson Rd. 69 kV substation and loop the Cedar Grove - Hinchmans Ave into Jackson Rd. and construct Hawthorne 69 kV substation and build 69 kV circuit from Hinchmans Ave - Hawthorne - Fair Lawn		PSEG (100%)
b2159	Reconfigure the Linden, Bayway, North Ave, and Passaic Valley S.C. 138 kV substations. Construct and loop new 138 kV circuit to new airport station		PSEG (72.61%) / HTP*** (24.49%) / RE (2.90%)

*Neptune Regional Transmission System, LLC

***Hudson Transmission Partners, LLC

SCHEDULE 12 – APPENDIX

(14) Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0216	Install -100/+525 MVAR dynamic reactive device at Black Oak	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (39.20%) / BGE (13.05%) / Dominion (31.49%) / PEPSCO (16.26%)
b0218	Install third Wylie Ridge 500/345 kV transformer	As specified under the procedures detailed in Attachment H-18B, Section 1.b
b0220	Upgrade coolers on Wylie Ridge 500/345 kV #7	
b0229	Install fourth Bedington 500/138 kV	
b0230	Install fourth Meadowbrook 500/138 kV	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		APS (79.16%) / BGE (3.61%) / DPL (0.86%) / Dominion (11.75%) / ME (0.67%) / PEPSCO (3.95%)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0238	Reconductor Doubs – Dickerson and Doubs – Aqueduct 1200 MVA	As specified under the procedures detailed in Attachment H-18B, Section 1.b	BGE (16.66%) / Dominion (33.66%) / PEPCO (49.68%)
b0240	Open the Black Oak #3 500/138 kV transformer for the loss of Hatfield – Back Oak 500 kV line		APS (100%)
b0245	Replacement of the existing 954 ACSR conductor on the Bedington – Nipetown 138 kV line with high temperature/low sag conductor		APS (100%)
b0246	Rebuild of the Double Tollgate – Old Chapel 138 kV line with 954 ACSR conductor	As specified under the procedures detailed in Attachment H-18B, Section 1.b	APS (100%)
b0273	Open both North Shenandoah #3 transformer and Strasburg – Edinburgh 138 kV line for the loss of Mount Storm – Meadowbrook 572 500 kV		APS (100%)
b0322	Convert Lime Kiln substation to 230 kV operation		APS (100%)
b0323	Replace the North Shenandoah 138/115 kV transformer	As specified under the procedures detailed in Attachment H-18B, Section 1.b	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0328.2	Build new Meadow Brook – Loudoun 500 kV circuit (20 of 50 miles)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: BGE (8.29%) / Dominion (79.93%) / PEPCO (11.78%)</p>
b0343	Replace Doubs 500/230 kV transformer #2	As specified under the procedures detailed in Attachment H-18B, Section 1.b AEC (1.85%) / BGE (21.49%) / DPL (3.91%) / Dominion (28.86%) / ME (2.97%) / PECO (5.73%) / PEPCO (35.19%)
b0344	Replace Doubs 500/230 kV transformer #3	As specified under the procedures detailed in Attachment H-18B, Section 1.b AEC (1.86%) / BGE (21.50%) / DPL (3.91%) / Dominion (28.82%) / ME (2.97%) / PECO (5.74%) / PEPCO (35.20%)
b0345	Replace Doubs 500/230 kV transformer #4	As specified under the procedures detailed in Attachment H-18B, Section 1.b AEC (1.85%) / BGE (21.49%) / DPL (3.90%) / Dominion (28.83%) / ME (2.98%) / PECO (5.75%) / PEPCO (35.20%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.1	Build new Mt. Storm – 502 Junction 500 kV circuit	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)
b0347.2	Build new Mt. Storm – Meadow Brook 500 kV circuit	As specified under the procedures detailed in Attachment H-18B, Section 1.b
		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.3	Build new 502 Junction 500 kV substation	As specified under the procedures detailed in Attachment H-18B, Section 1.b
b0347.4	Upgrade Meadow Brook 500 kV substation	As specified under the procedures detailed in Attachment H-18B, Section 1.b

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.5	Replace Harrison 500 kV breaker HL-3	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)
b0347.6	Upgrade (per ABB inspection) breaker HL-6	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.7	Upgrade (per ABB inspection) breaker HL-7	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)
b0347.8	Upgrade (per ABB inspection) breaker HL-8	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.9	Upgrade (per ABB inspection) breaker HL-10	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)
b0347.10	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-1	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.11	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-3	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)
b0347.12	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-4	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.13	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-6	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)
b0347.14	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-7	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.15	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-9	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)
b0347.16	Upgrade (per ABB inspection) Harrison 500 kV breaker 'HL-3'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.17	Replace Meadow Brook 138 kV breaker 'MD-10'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.18	Replace Meadow Brook 138 kV breaker 'MD-11'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.19	Replace Meadow Brook 138 kV breaker 'MD-12'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.20	Replace Meadow Brook 138 kV breaker 'MD-13'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.21	Replace Meadow Brook 138 kV breaker 'MD-14'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.22	Replace Meadow Brook 138 kV breaker 'MD-15'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.23	Replace Meadow Brook 138 kV breaker 'MD-16'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.24	Replace Meadow Brook 138 kV breaker 'MD-17'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.25	Replace Meadow Brook 138 kV breaker 'MD-18'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.26	Replace Meadow Brook 138 kV breaker 'MD-22#1 CAP'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.27	Replace Meadow Brook 138 kV breaker 'MD-4'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.28	Replace Meadow Brook 138 kV breaker 'MD-5'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.29	Replace Meadowbrook 138 kV breaker 'MD-6'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.30	Replace Meadowbrook 138 kV breaker 'MD-7'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0347.31	Replace Meadowbrook 138 kV breaker 'MD-8'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0347.32	Replace Meadowbrook 138 kV breaker 'MD-9'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0347.33	Replace Meadow Brook 138 kV breaker 'MD-1'		APS (100%)
b0347.34	Replace Meadow Brook 138 kV breaker 'MD-2'		APS (100%)
b0348	Upgrade Stonewall – Inwood 138 kV with 954 ACSR conductor		APS (100%)
b0373	Convert Doubs – Monocacy 138 kV facilities to 230 kV operation		AEC (1.82%) / APS (76.84%) / DPL (2.64%) / JCPL (4.53%) / ME (9.15%) / NEPTUNE* (0.42%) / PPL (4.60%)
b0393	Replace terminal equipment at Harrison 500 kV and Belmont 500 kV		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: APS (44.89%) / Dayton (17.18%) / DEOK (28.83%) / EKPC (9.10%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0406.1	Replace Mitchell 138 kV breaker “#4 bank”		APS (100%)
b0406.2	Replace Mitchell 138 kV breaker “#5 bank”		APS (100%)
b0406.3	Replace Mitchell 138 kV breaker “#2 transf		APS (100%)
b0406.4	Replace Mitchell 138 kV breaker “#3 bank”		APS (100%)
b0406.5	Replace Mitchell 138 kV breaker “Charlerio #2”		APS (100%)
b0406.6	Replace Mitchell 138 kV breaker “Charlerio #1”		APS (100%)
b0406.7	Replace Mitchell 138 kV breaker “Shepler Hill Jct”		APS (100%)
b0406.8	Replace Mitchell 138 kV breaker “Union Jct”		APS (100%)
b0406.9	Replace Mitchell 138 kV breaker “#1-2 138 kV bus tie”		APS (100%)
b0407.1	Replace Marlowe 138 kV breaker “#1 transf		APS (100%)
b0407.2	Replace Marlowe 138 kV breaker “MBO”		APS (100%)
b0407.3	Replace Marlowe 138 kV breaker “BMA”		APS (100%)
b0407.4	Replace Marlowe 138 kV breaker “BMR”		APS (100%)
b0407.5	Replace Marlowe 138 kV breaker “WC-1”		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0407.6	Replace Marlowe 138 kV breaker “R11”	APS (100%)
b0407.7	Replace Marlowe 138 kV breaker “W”	APS (100%)
b0407.8	Replace Marlowe 138 kV breaker “138 kV bus tie”	APS (100%)
b0408.1	Replace Trissler 138 kV breaker “Belmont 604”	APS (100%)
b0408.2	Replace Trissler 138 kV breaker “Edgelawn 90”	APS (100%)
b0409.1	Replace Weirton 138 kV breaker “Wylie Ridge 210”	APS (100%)
b0409.2	Replace Weirton 138 kV breaker “Wylie Ridge 216”	APS (100%)
b0410	Replace Glen Falls 138 kV breaker “McAlpin 30”	APS (100%)
b0417	Reconductor Mitchell – Shepler Hill Junction 138 kV with 954 ACSR	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0418	Install a breaker failure auto-restoration scheme at Cabot 500 kV for the failure of the #6 breaker	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b0419	Install a breaker failure auto-restoration scheme at Bedington 500 kV for the failure of the #1 and #2 breakers	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (100%)
b0420	Operating Procedure to open the Black Oak 500/138 kV transformer #3 for the loss of Hatfield – Ronco 500 kV and the Hatfield #3 Generation	APS (100%)
b0445	Upgrade substation equipment and reconductor the Tidd – Mahans Lane – Weirton 138 kV circuit with 954 ACSR	APS (100%)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0460	Raise limiting structures on Albright – Bethelboro 138 kV to raise the rating to 175 MVA normal 214 MVA emergency	APS (100%)
b0491	Construct an Amos to Welton Spring to WV state line 765 kV circuit (APS equipment)	As specified under the procedures detailed in Attachment H-19B
		<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)</p>

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)	
b0492	Construct a Welton Spring to Kemptown 765 kV line (APS equipment)	As specified under the procedures detailed in Attachment H-19B	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
b0492.3	Replace Eastalco 230 kV breaker D-26		APS (100%)
b0492.4	Replace Eastalco 230 kV breaker D-28		APS (100%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.5	Replace Eastalco 230 kV breaker D-31	APS (100%)
b0495	Replace existing Kammer 765/500 kV transformer with a new larger transformer	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEP (2.21%) / APS (1.71%) / BGE (45.34%) / Dayton (0.76%) / DEOK (1.02%) / EKPC (0.26%) / PEPCO (48.70%)</p>
b0533	Reconductor the Powell Mountain – Sutton 138 kV line	APS (100%)
b0534	Install a 28.61 MVAR capacitor on Sutton 138 kV	APS (100%)
b0535	Install a 44 MVAR capacitor on Dutch Fork 138 kV	APS (100%)
b0536	Replace Doubs circuit breaker DJ1	APS (100%)
b0537	Replace Doubs circuit breaker DJ7	APS (100%)
b0538	Replace Doubs circuit breaker DJ10	APS (100%)
b0572.1	Reconductor Albright – Mettiki – Williams – Parsons – Loughs Lane 138 kV with 954 ACSR	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0572.2	Reconductor Albright – Mettiki – Williams – Parsons – Loughs Lane 138 kV with 954 ACSR		APS (100%)
b0573	Reconfigure circuits in Butler – Cabot 138 kV area		APS (100%)
b0577	Replace Fort Martin 500 kV breaker FL-1		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: APS (100%)
b0584	Install 33 MVAR 138 kV capacitor at Necessity 138 kV		APS (100%)
b0585	Increase Cecil 138 kV capacitor size to 44 MVAR, replace five 138 kV breakers at Cecil due to increased short circuit fault duty as a result of the addition of the Prexy substation		APS (100%)
b0586	Increase Whiteley 138 kV capacitor size to 44 MVAR		APS (100%)

*Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0587	Reconductor AP portion of Tidd – Carnegie 138 kV and Carnegie – Weirton 138 kV with 954 ACSR	APS (100%)
b0588	Install a 40.8 MVAR 138 kV capacitor at Grassy Falls	APS (100%)
b0589	Replace five 138 kV breakers at Cecil	APS (100%)
b0590	Replace #1 and #2 breakers at Charleroi 138 kV	APS (100%)
b0591	Install a 25.2 MVAR capacitor at Seneca Caverns 138 kV	APS (100%)
b0673	Rebuild Elko – Carbon Center Junction using 230 kV construction	APS (100%)
b0674	Construct new Osage – Whiteley 138 kV circuit	APS (97.68%) / DL (0.96%) / PENELEC (1.09%) / ECP** (0.01%) / PSEG (0.25%) / RE (0.01%)
b0674.1	Replace the Osage 138 kV breaker ‘CollinsF126’	APS (100%)
b0675.1	Convert Monocacy - Walkersville 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.2	Convert Walkersville - Catoctin 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0675.3	Convert Ringgold - Catoctin 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.4	Convert Catoctin - Carroll 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.5	Convert portion of Ringgold Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.6	Convert Catoctin Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.7	Convert portion of Carroll Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0675.8	Convert Monocacy Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)

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**East Coast Power, L.L.C.

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0675.9	Convert Walkersville Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%) / ECP** (0.06%)
b0676.1	Reconductor Doubs - Lime Kiln (#207) 230 kV	AEC (0.64%) / APS (86.70%) / DPL (0.53%) / JCPL (1.93%) / ME (4.04%) / NEPTUNE* (0.18%) / PECO (1.93%) / PENELEC (0.93%) / PSEG (2.92%) / RE (0.12%) / ECP** (0.08%)
b0676.2	Reconductor Doubs - Lime Kiln (#231) 230 kV	AEC (0.64%) / APS (86.70%) / DPL (0.53%) / JCPL (1.93%) / ME (4.04%) / NEPTUNE* (0.18%) / PECO (1.93%) / PENELEC (0.93%) / PSEG (2.92%) / RE (0.12%) / ECP** (0.08%)
b0677	Reconductor Double Toll Gate – Riverton with 954 ACSR	APS (100%)
b0678	Reconductor Glen Falls - Oak Mound 138 kV with 954 ACSR	APS (100%)
b0679	Reconductor Grand Point – Letterkenny with 954 ACSR	APS (100%)
b0680	Reconductor Greene – Letterkenny with 954 ACSR	APS (100%)
b0681	Replace 600/5 CT's at Franklin 138 kV	APS (100%)
b0682	Replace 600/5 CT's at Whiteley 138 kV	APS (100%)

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**East Coast Power, L.L.C.

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0684	Reconductor Guilford – South Chambersburg with 954 ACSR	APS (100%)
b0685	Replace Ringgold 230/138 kV #3 with larger transformer	APS (71.93%) / JCPL (4.17%) / ME (6.79%) / NEPTUNE* (0.38%) / PECO (4.05%) / PENELEC (5.88%) / ECP** (0.18%) / PSEG (6.37%) / RE (0.25%)
b0704	Install a third Cabot 500/138 kV transformer	APS (74.36%) / DL (2.73%) PENELEC (22.91%)
b0797	Advance n0321 (Replace Doubs Circuit Breaker DJ2)	APS (100%)
b0798	Advance n0322 (Replace Doubs Circuit Breaker DJ3)	APS (100%)
b0799	Advance n0323 (Replace Doubs Circuit Breaker DJ6)	APS (100%)
b0800	Advance n0327 (Replace Doubs Circuit Breaker DJ16)	APS (100%)
b0941	Replace Opequon 138 kV breaker 'BUSTIE'	APS (100%)
b0942	Replace Butler 138 kV breaker '#1 BANK'	APS (100%)
b0943	Replace Butler 138 kV breaker '#2 BANK'	APS (100%)
b0944	Replace Yukon 138 kV breaker 'Y-8'	APS (100%)
b0945	Replace Yukon 138 kV breaker 'Y-3'	APS (100%)

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**East Coast Power, L.L.C.

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0946	Replace Yukon 138 kV breaker 'Y-1'	APS (100%)
b0947	Replace Yukon 138 kV breaker 'Y-5'	APS (100%)
b0948	Replace Yukon 138 kV breaker 'Y-2'	APS (100%)
b0949	Replace Yukon 138 kV breaker 'Y-19'	APS (100%)
b0950	Replace Yukon 138 kV breaker 'Y-4'	APS (100%)
b0951	Replace Yukon 138 kV breaker 'Y-9'	APS (100%)
b0952	Replace Yukon 138 kV breaker 'Y-11'	APS (100%)
b0953	Replace Yukon 138 kV breaker 'Y-13'	APS (100%)
b0954	Replace Charleroi 138 kV breaker '#1 XFMR BANK'	APS (100%)
b0955	Replace Yukon 138 kV breaker 'Y-7'	APS (100%)
b0956	Replace Pruntytown 138 kV breaker 'P-9'	APS (100%)
b0957	Replace Pruntytown 138 kV breaker 'P-12'	APS (100%)
b0958	Replace Pruntytown 138 kV breaker 'P-15'	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0959 Replace Charleroi 138 kV breaker '#2 XFMR BANK'		APS (100%)
b0960 Replace Pruntytown 138 kV breaker 'P-2'		APS (100%)
b0961 Replace Pruntytown 138 kV breaker 'P-5'		APS (100%)
b0962 Replace Yukon 138 kV breaker 'Y-18'		APS (100%)
b0963 Replace Yukon 138 kV breaker 'Y-10'		APS (100%)
b0964 Replace Pruntytown 138 kV breaker 'P-11'		APS (100%)
b0965 Replace Springdale 138 kV breaker '138E'		APS (100%)
b0966 Replace Pruntytown 138 kV breaker 'P-8'		APS (100%)
b0967 Replace Pruntytown 138 kV breaker 'P-14'		APS (100%)
b0968 Replace Ringgold 138 kV breaker '#3 XFMR BANK'		APS (100%)
b0969 Replace Springdale 138 kV breaker '138C'		APS (100%)
b0970 Replace Rivesville 138 kV breaker '#8 XFMR BANK'		APS (100%)
b0971 Replace Springdale 138 kV breaker '138F'		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0972	Replace Belmont 138 kV breaker 'B-16'	APS (100%)
b0973	Replace Springdale 138 kV breaker '138G'	APS (100%)
b0974	Replace Springdale 138 kV breaker '138V'	APS (100%)
b0975	Replace Armstrong 138 kV breaker 'BROOKVILLE'	APS (100%)
b0976	Replace Springdale 138 kV breaker '138P'	APS (100%)
b0977	Replace Belmont 138 kV breaker 'B-17'	APS (100%)
b0978	Replace Springdale 138 kV breaker '138U'	APS (100%)
b0979	Replace Springdale 138 kV breaker '138D'	APS (100%)
b0980	Replace Springdale 138 kV breaker '138R'	APS (100%)
b0981	Replace Yukon 138 kV breaker 'Y-12'	APS (100%)
b0982	Replace Yukon 138 kV breaker 'Y-17'	APS (100%)
b0983	Replace Yukon 138 kV breaker 'Y-14'	APS (100%)
b0984	Replace Rivesville 138 kV breaker '#10 XFMR BANK'	APS (100%)
b0985	Replace Belmont 138 kV breaker 'B-14'	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0986	Replace Armstrong 138 kV breaker 'RESERVE BUS'		APS (100%)
b0987	Replace Yukon 138 kV breaker 'Y-16'		APS (100%)
b0988	Replace Springdale 138 kV breaker '138T'		APS (100%)
b0989	Replace Edgelawn 138 kV breaker 'GOFF RUN #632'		APS (100%)
b0990	Change reclosing on Cabot 138 kV breaker 'C-9'		APS (100%)
b0991	Change reclosing on Belmont 138 kV breaker 'B-7'		APS (100%)
b0992	Change reclosing on Belmont 138 kV breaker 'B-12'		APS (100%)
b0993	Change reclosing on Belmont 138 kV breaker 'B-9'		APS (100%)
b0994	Change reclosing on Belmont 138 kV breaker 'B-19'		APS (100%)
b0995	Change reclosing on Belmont 138 kV breaker 'B-21'		APS (100%)
b0996	Change reclosing on Willow Island 138 kV breaker 'FAIRVIEW #84'		APS (100%)
b0997	Change reclosing on Cabot 138 kV breaker 'C-4'		APS (100%)
b0998	Change reclosing on Cabot 138 kV breaker 'C-1'		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0999	Replace Redbud 138 kV breaker 'BUS TIE'		APS (100%)
b1022.1	Reconfigure the Peters to Bethel Park 138 kV line and Elrama to Woodville 138 kV line to create a 138 kV path from Woodville to Peters and a 138 kV path from Elrama to Bethel Park		APS (96.98%) / DL (3.02%)
b1022.3	Add static capacitors at Smith 138 kV		APS (96.98%) / DL (3.02%)
b1022.4	Add static capacitors at North Fayette 138 kV		APS (96.98%) / DL (3.02%)
b1022.5	Add static capacitors at South Fayette 138 kV		APS (96.98%) / DL (3.02%)
b1022.6	Add static capacitors at Manifold 138 kV		APS (96.98%) / DL (3.02%)
b1022.7	Add static capacitors at Houston 138 kV		APS (96.98%) / DL (3.02%)
b1023.1	Install a 500/138 kV transformer at 502 Junction		APS (100%)
b1023.2	Construct a new Franklin - 502 Junction 138 kV line including a rebuild of the Whiteley - Franklin 138 kV line to double circuit		APS (100%)
b1023.3	Construct a new 502 Junction - Osage 138 kV line		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1023.4	Construct Braddock 138 kV breaker station that connects the Charleroi - Gordon 138 kV line, Washington - Franklin 138 kV line and the Washington - Vanceville 138 kV line including a 66 MVAR capacitor	APS (100%)
b1027	Increase the size of the shunt capacitors at Enon 138 kV	APS (100%)
b1028	Raise three structures on the Osage - Collins Ferry 138 kV line to increase the line rating	APS (100%)
b1128	Reconductor the Edgewater – Vasco Tap; Edgewater – Loyalhanna 138 kV lines with 954 ACSR	APS (100%)
b1129	Reconductor the East Waynesboro – Ringgold 138 kV line with 954 ACSR	APS (100%)
b1131	Upgrade Double Tollgate – Meadowbrook MDT Terminal Equipment	APS (100%)
b1132	Upgrade Double Tollgate-Meadowbrook MBG terminal equipment	APS (100%)
b1133	Upgrade terminal equipment at Springdale	APS (100%)
b1135	Reconductor the Bartonville – Meadowbrook 138 kV line with high temperature conductor	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1137	Reconductor the Eastgate – Luxor 138 kV; Eastgate – Sony 138 kV line with 954 ACSR	APS (78.59%) / PENELEC (14.08%) / ECP** (0.23%) / PSEG (6.83%) / RE (0.27%)
b1138	Reconductor the King Farm – Sony 138 kV line with 954 ACSR	APS (100%)
b1139	Reconductor the Yukon – Waltz Mills 138 kV line with high temperature conductor	APS (100%)
b1140	Reconductor the Bracken Junction – Luxor 138 kV line with 954 ACSR	APS (100%)
b1141	Reconductor the Sewickley – Waltz Mills Tap 138 kV line with high temperature conductor	APS (100%)
b1142	Reconductor the Bartonsville – Stephenson 138 kV; Stonewall – Stephenson 138 kV line with 954 ACSR	APS (100%)
b1143	Reconductor the Youngwood – Yukon 138 kV line with high temperature conductor	APS (89.92%) / PENELEC (10.08%)
b1144	Reconductor the Bull Creek Junction – Cabot 138 kV line with high temperature conductor	APS (100%)

**East Coast Power, L.L.C.

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1145	Reconductor the Lawson Junction – Cabot 138 kV line with high temperature conductor	APS (100%)
b1146	Replace Layton - Smithton #61 138 kV line structures to increase line rating	APS (100%)
b1147	Replace Smith – Yukon 138 kV line structures to increase line rating	APS (100%)
b1148	Reconductor the Loyalhanna – Luxor 138 kV line with 954 ACSR	APS (100%)
b1149	Reconductor the Luxor – Stony Springs Junction 138 kV line with 954 ACSR	APS (100%)
b1150	Upgrade terminal equipment at Social Hall	APS (100%)
b1151	Reconductor the Greenwood – Redbud 138 kV line with 954 ACSR	APS (100%)
b1152	Reconductor Grand Point – South Chambersburg	APS (100%)
b1159	Replace Peters 138 kV breaker ‘Bethel P OCB’	APS (100%)
b1160	Replace Peters 138 kV breaker ‘Cecil OCB’	APS (100%)
b1161	Replace Peters 138 kV breaker ‘Union JctOCB’	APS (100%)
b1162	Replace Double Toll Gate 138 kV breaker ‘DRB-2’	APS (100%)
b1163	Replace Double Toll Gate 138 kV breaker ‘DT 138 kV OCB’	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1164	Replace Cecil 138 kV breaker 'Enlow OCB'		APS (100%)
b1165	Replace Cecil 138 kV breaker 'South Fayette'		APS (100%)
b1166	Replace Wylie Ridge 138 kV breaker 'W-9'		APS (100%)
b1167	Replace Reid 138 kV breaker 'RI-2'		APS (100%)
b1171.1	Install the second Black Oak 500/138 kV transformer, two 138 kV breaker, and related substation work		BGE (20.76%) / DPL (3.14%) / Dominion (39.55%) / ME (2.71%) / PECO (3.36%) / PEPSCO (30.48%)
b1171.3	Install six 500 kV breakers and remove BOL1 500 kV breaker at Black Oak		AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
b1200	Reconductor Double Toll Gate – Greenwood 138 kV with 954 ACSR conductor		APS (100%)
b1221.1	Convert Carbon Center from 138 kV to a 230 kV ring bus		APS (100%)
b1221.2	Construct Bear Run 230 kV substation with 230/138 kV transformer		APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1221.3	Loop Carbon Center Junction – Williamette line into Bear Run	APS (100%)
b1221.4	Carbon Center – Carbon Center Junction & Carbon Center Junction – Bear Run conversion from 138 kV to 230 kV	APS (100%)
b1230	Reconductor Willow-Eureka & Eureka-St Mary 138 kV lines	APS (100%)
b1232	Reconductor Nipetown – Reid 138 kV with 1033 ACCR	AEC (1.40%) / APS (75.74%) / DPL (1.92%) / JCPL (2.92%) / ME (6.10%) / NEPTUNE* (0.27%) / PECO (4.40%) / PENELEC (3.26%) / PPL (3.99%)
b1233.1	Upgrade terminal equipment at Washington	APS (100%)
b1234	Replace structures between Ridgeway and Paper city	APS (100%)
b1235	Reconductor the Albright – Black Oak AFA 138 kV line with 795 ACSS/TW	APS (30.25%) / BGE (16.10%) / Dominion (30.51%) / PEPCO (23.14%)
b1237	Upgrade terminal equipment at Albright, replace bus and line side breaker disconnects and leads, replace breaker risers, upgrade RTU and line	APS (100%)
b1238	Install a 138 kV 44 MVAR capacitor at Edgelawn substation	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1239	Install a 138 kV 44 MVAR capacitor at Ridgeway substation	APS (100%)
b1240	Install a 138 kV 44 MVAR capacitor at Elko Substation	APS (100%)
b1241	Upgrade terminal equipment at Washington substation on the GE Plastics/DuPont terminal	APS (100%)
b1242	Replace structures between Collins Ferry and West Run	APS (100%)
b1243	Install a 138 kV capacitor at Potter Substation	APS (100%)
b1261	Replace Butler 138 kV breaker '1-2 BUS 138'	APS (100%)
b1383	Install 2nd 500/138 kV transformer at 502 Junction	APS (93.27%) / DL (5.39%) / PENELEC (1.34%)
b1384	Reconductor approximately 2.17 miles of Bedington – Shepherdstown 138 kV with 954 ACSR	APS (100%)
b1385	Reconductor Halfway – Paramount 138 kV with 1033 ACCR	APS (100%)
b1386	Reconductor Double Tollgate – Meadow Brook 138 kV ckt 2 with 1033 ACCR	APS (93.33%) / BGE (3.39%) / PEPCO (3.28%)
b1387	Reconductor Double Tollgate – Meadow Brook 138 kV	APS (93.33%) / BGE (3.39%) / PEPCO (3.28%)
b1388	Reconductor Feagans Mill – Millville 138 kV with 954 ACSR	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1389	Reconductor Bens Run – St. Mary’s 138 kV with 954 ACSR	AEP (12.40%) / APS (17.80%) / DL (69.80%)
b1390	Replace Bus Tie Breaker at Opequon	APS (100%)
b1391	Replace Line Trap at Gore	APS (100%)
b1392	Replace structure on Belmont – Trissler 138 kV line	APS (100%)
b1393	Replace structures Kingwood – Pruntytown 138 kV line	APS (100%)
b1395	Upgrade Terminal Equipment at Kittanning	APS (100%)
b1401	Change reclosing on Pruntytown 138 kV breaker ‘P-16’ to 1 shot at 15 seconds	APS (100%)
b1402	Change reclosing on Rivesville 138 kV breaker ‘Pruntytown #34’ to 1 shot at 15 seconds	APS (100%)
b1403	Change reclosing on Yukon 138 kV breaker ‘Y21 Shepler’ to 1 shot at 15 seconds	APS (100%)
b1404	Replace the Kiski Valley 138 kV breaker ‘Vandergrift’ with a 40 kA breaker	APS (100%)
b1405	Change reclosing on Armstrong 138 kV breaker ‘GARETTRJCT’ at 1 shot at 15 seconds	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1406	Change reclosing on Armstrong 138 kV breaker 'KITTANNING' to 1 shot at 15 seconds	APS (100%)
b1407	Change reclosing on Armstrong 138 kV breaker 'BURMA' to 1 shot at 15 seconds	APS (100%)
b1408	Replace the Weirton 138 kV breaker 'Tidd 224' with a 40 kA breaker	APS (100%)
b1409	Replace the Cabot 138 kV breaker 'C9 Kiski Valley' with a 40 kA breaker	APS (100%)
b1507.2	Terminal Equipment upgrade at Doubs substation	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (20.09%) / BGE (13.46%) / Dominion (52.77%) / PEPCO (13.68%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1507.3	Mt. Storm – Doubs transmission line rebuild in Maryland – Total line mileage for APS is 2.71 miles	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (20.09%) / BGE (13.46%) / Dominion (52.77%) / PEPCO (13.68%)
b1510	Install 59.4 MVAR capacitor at Waverly	APS (100%)
b1672	Install a 230 kV breaker at Carbon Center	APS (100%)
b0539	Replace Doubs circuit breaker DJ11	APS (100%)
b0540	Replace Doubs circuit breaker DJ12	APS (100%)
b0541	Replace Doubs circuit breaker DJ13	APS (100%)
b0542	Replace Doubs circuit breaker DJ20	APS (100%)
b0543	Replace Doubs circuit breaker DJ21	APS (100%)
b0544	Remove instantaneous reclose from Eastalco circuit breaker D-26	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0545	Remove instantaneous reclose from Eastalco circuit breaker D-28	APS (100%)
b0559	Install 200 MVAR capacitor at Meadow Brook 500 kV substation	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0560	Install 250 MVAR capacitor at Kemptown 500 kV substation	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1803	Build a 300 MVAR Switched Shunt at Doubs 500 kV and increase (~50 MVAR) in size the existing Switched Shunt at Doubs 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (20.09%) / BGE (13.46%) / Dominion (52.77%) / PEPCO (13.68%)
b1804	Install a new 600 MVAR SVC at Meadowbrook 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b1816.1	Replace relaying at the Mt. Airy substation on the Carroll - Mt. Airy 230 kV line	APS (100%)

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Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1816.2	Adjust the control settings of all existing capacitors at Mt Airy 34.5 kV, Monocacy 138 kV, Ringgold 138 kV served by Potomac Edison's Eastern 230 kV network to ensure that all units will be on during the identified N-1-1 contingencies	APS (100%)
b1816.3	Replace existing unidirectional LTC controller on the No. 4, 230/138 kV transformer at Carroll substation with a bidirectional unit	APS (100%)
b1816.4	Isolate and bypass the 138 kV reactor at Germantown Substation	APS (100%)
b1816.6	Replace 336.4 ACSR conductor on the Catoctin - Carroll 138 kV line using 556.5 ACSR (26/7) or equivalent on existing structures (12.7 miles), 800 A wave traps at Carroll and Catoctin with 1200 A units, and 556.5 ACSR SCCIR (Sub-conductor) line risers and bus traps with 795 ACSR or equivalent	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1822	Replace the 1200 A wave trap, line risers, breaker risers with 1600 A capacity terminal equipment at Reid 138 kV SS	APS (100%)
b1823	Replace the 800 A wave trap with a 1200 A wave trap at Millville 138 kV substation	APS (100%)
b1824	Reconductor Grant Point - Guilford 138 kV line approximately 8 miles of 556 ACSR with 795 ACSR	APS (100%)
b1825	Replace the 800 Amp line trap at Butler 138 kV Sub on the Cabot East 138 kV line	APS (100%)
b1826	Change the CT ratio at Double Toll Gate 138 kV SS on MDT line	APS (100%)
b1827	Change the CT ratio at Double Toll Gate 138 kV SS on MBG line	APS (100%)
b1828.1	Reconductor the Bartonville – Stephenson 3.03 mile 138 kV line of 556 ACSR with 795 ACSR	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1828.2	Reconductor the Stonewall – Stephenson 2.08 mile 138 kV line of 556 ACSR with 795 ACSR	APS (100%)
b1829	Replace the existing 138 kV 556.5 ACSR substation conductor risers with 954 ACSR at the Redbud 138 kV substation, including but not limited to the line side disconnect leads	APS (100%)
b1830	Replace 1200 A wave trap and 1024 ACAR breaker risers at Halfway 138 kV substation, and replace 1024 ACAR breaker risers at Paramount 138 kV substation	APS (100%)
b1832	Replace the 1200 A line side and bus side disconnect switches with 1600 A switches, replace bus side, line side, and disconnect leads at Lime Kiln SS on the Doubs - Lime Kiln 1 (207) 230 kV line terminal	APS (100%)
b1833	Replace the 1200 A line side and bus side disconnect switches with 1600 A switches, replace bus side, line side, and disconnect leads at Lime Kiln SS on the Doubs - Lime Kiln 2 (231) 230 kV line terminal	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1835	Reconductor 14.3 miles of 556 ACSR with 795 ACSR from Old Chapel to Millville 138 kV and upgrade line risers at Old Chapel 138 kV and Millville 138 kV and replace 1200 A wave trap at Millville 138 kV	APS (37.68%) / Dominion (34.46%) / PEPCO (13.69%) / BGE (11.45%) / ME (2.01%) / PENELEC (0.53%) / DL (0.18%)
b1836	Replace 1200 A wave trap with 1600 A wave trap at Reid 138 kV SS	APS (100%)
b1837	Replace 750 CU breaker risers with 795 ACSR at Marlowe 138 kV and replace 1200 A wave traps with 1600 A wave traps at Marlowe 138 kV and Bedington 138 kV	APS (100%)
b1838	Replace the 1200 A Bedington 138 kV line air switch and the 1200 A 138 kV bus tie air switch at Nipetown 138 kV with 1600 A switches	APS (100%)
b1839	Install additional 33 MVAR capacitors at Grand Point 138 kV SS and Guildford 138 kV SS	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1840	Construct a 138 kV line between Buckhannon and Weston 138 kV substations	APS (100%)
b1902	Replace line trap at Stonewall on the Stephenson 138 kV line terminal	APS (100%)
b1941	Loop the Homer City- Handsome Lake 345 kV line into the Armstrong substation and install a 345/138 kV transformer at Armstrong	APS (67.86%) / PENELEC (32.14%)
b1942	Change the CT ratio at Millville to improve the Millville – Old Chapel 138 kV line ratings	APS (100%)
b1964	Convert Moshannon substation to a 4 breaker 230 kV ring bus	APS (41.06%) / DPL (6.68%) / JCPL (5.48%) / ME (10.70%) / NEPTUNE* (0.53%) / PECO (15.53%) / PPL (20.02%)
b1965	Install a 44 MVAR 138 kV capacitor at Luxor substation	APS (100%)
b1986	Upgrade the AP portion of the Elrama – Mitchell 138 kV line by replace breaker risers on the Mitchell 138 kV bus on the Elrama terminal	APS (100%)
b1987	Reconductor the Osage-Collins Ferry 138 kV line with 795 ACSS. Upgrade terminal equipment at Osage and Collins Ferry	APS (100%)

* Neptune Regional Transmission System, LLC

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1988	Raise structures between Lake Lynn and West Run to eliminate the clearance de-rates on the West Run – Lake Lynn 138 kV line	APS (100%)
b1989	Raise structures between Collins Ferry and West Run to eliminate the clearance de-rates on the Collins Ferry - West Run 138 kV line	APS (100%)
b2095	Replace Weirt 138 kV breaker 'S-TORONTO226' with 63 kA rated breaker	APS (100%)
b2096	Revise the reclosing of Weirt 138 kV breaker '2&5 XFMR'	APS (100%)
b2097	Replace Ridgeley 138 kV breaker '#2 XFMR OCB'	APS (100%)
b2098	Revise the reclosing of Ridgeley 138 kV breaker 'AR3' with 40 kA rated breaker	APS (100%)
b2099	Revise the reclosing of Ridgeley 138 kV breaker 'RC1'	APS (100%)
b2100	Replace Ridgeley 138 kV breaker 'WC4' with 40 kA rated breaker	APS (100%)
b2101	Replace Ridgeley 138 kV breaker '1 XFMR OCB' with 40 kA rated breaker	APS (100%)
b2102	Replace Armstrong 138 kV breaker 'GARETTRJCT' with 40 kA rated breaker	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2103	Replace Armstrong 138 kV breaker 'BURMA' with 40 kA rated breaker	APS (100%)
b2104	Replace Armstrong 138 kV breaker 'KITANNING' with 40 kA rated breaker	APS (100%)
b2105	Replace Armstrong 138 kV breaker 'KISSINGERJCT' with 40 kA rated breaker	APS (100%)
b2106	Replace Wylie Ridge 345 kV breaker 'WK-1' with 63 kA rated breaker	APS (100%)
b2107	Replace Wylie Ridge 345 kV breaker 'WK-2' with 63 kA rated breaker	APS (100%)
b2108	Replace Wylie Ridge 345 kV breaker 'WK-3' with 63 kA rated breaker	APS (100%)
b2109	Replace Wylie Ridge 345 kV breaker 'WK-4' with 63 kA rated breaker	APS (100%)
b2110	Replace Wylie Ridge 345 kV breaker 'WK-6' with 63 kA rated breaker	APS (100%)
b2111	Replace Wylie Ridge 138 kV breaker 'WK-7' with 63 kA rated breaker	APS (100%)
b2112	Replace Wylie Ridge 345 kV breaker 'WK-5'	APS (100%)
b2113	Replace Weirton 138 kV breaker 'NO 6 XFMR' with 63 kA rated breaker	APS (100%)
b2114	Replace Armstrong 138 kV breaker 'Bus-Tie' (Status On-Hold pending retirement)	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2124.1	Add a new 138 kV line exit		APS (100%)
b2124.2	Construct a 138 kV ring bus and install a 138/69 kV autotransformer		APS (100%)
b2124.3	Add new 138 kV line exit and install a 138/25 kV transformer		APS (100%)
b2124.4	Construct approximately 5.5 miles of 138 kV line		APS (100%)
b2124.5	Convert approximately 7.5 miles of 69 kV to 138 kV		APS (100%)
b2156	Install a 75 MVAR 230 kV capacitor at Shingletown Substation		APS (100%)
b2165	Replace 800A wave trap at Stonewall with a 1200 A wave trap		APS (100%)
b2166	Reconductor the Millville – Sleepy Hollow 138 kV 4.25 miles of 556 ACSR with 795 ACSR, upgrade line risers at Sleepy Hollow, and change 1200 A CT tap at Millville to 800		APS (100%)
b2168	For Grassy Falls 138 kV Capacitor bank adjust turn-on voltage to 1.0 pu with a high limit of 1.04 pu, For Crupperneck and Powell Mountain 138 kV Capacitor Banks adjust turn-on voltage to 1.01 pu with a high limit of 1.035 pu		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2169	Replace/Raise structures on the Yukon-Smithton 138 kV line section to eliminate clearance de-rate	APS (100%)
b2170	Replace/Raise structures on the Smithton-Shepler Hill Jct 138 kV line section to eliminate clearance de-rate	APS (100%)
b2171	Replace/Raise structures on the Parsons-William 138 kV line section to eliminate clearance de-rate	APS (100%)
b2172	Replace/Raise structures on the Parsons - Loughs Lane 138 kV line section to eliminate clearance de-rate	APS (100%)

SCHEDULE 12 – APPENDIX

- (17) **American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company**

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0318	Install a 765/138 kV transformer at Amos		AEP (99.00%) / PEPCO (1.00%)
b0324	Replace entrance conductors, wave traps, and risers at the Tidd 345 kV station on the Tidd – Canton Central 345 kV circuit		AEP (100%)
b0447	Replace Cook 345 kV breaker M2		AEP (100%)
b0448	Replace Cook 345 kV breaker N2		AEP (100%)
b0490	Construct an Amos – Bedington 765 kV circuit (AEP equipment)	As specified under the procedures detailed in Attachment H-19B	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.2	Replace Amos 138 kV breaker 'B'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.3	Replace Amos 138 kV breaker 'B1'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.4	Replace Amos 138 kV breaker 'C'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.5	Replace Amos 138 kV breaker 'C1'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.6	Replace Amos 138 kV breaker 'D'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.7	Replace Amos 138 kV breaker 'D2'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.8	Replace Amos 138 kV breaker 'E'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0490.9	Replace Amos 138 kV breaker 'E2'	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b0504	Add two advanced technology circuit breakers at Hanging Rock 765 kV to improve operational performance		<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEP (100%)</p>
b0570	Reconductor East Side Lima – Sterling 138 kV		AEP (41.99%) / ComEd (58.01%)
b0571	Reconductor West Millersport – Millersport 138 kV		AEP (73.83%) / ComEd (19.26%) / Dayton (6.91%)
b0748	Establish a new 69 kV circuit between the Canal Road and East Wooster stations, establish a new 69 kV circuit between the West Millersburg and Moreland Switch stations (via Shreve), add reactive support via cap banks		AEP (100%)
b0838	Hazard Area 138 kV and 69 kV Improvement Projects		AEP (100%)
b0839	Replace existing 450 MVA transformer at Twin Branch 345 / 138 kV with a 675 MVA transformer		AEP (99.73%) / Dayton (0.27%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0840	String a second 138 kV circuit on the open tower position between Twin Branch and East Elkhart	AEP (100%)
b0840.1	Establish a new 138/69-34.5 kV Station to interconnect the existing 34.5 kV network	AEP (100%)
b0917	Replace Baileysville 138 kV breaker 'P'	AEP (100%)
b0918	Replace Riverview 138 kV breaker '634'	AEP (100%)
b0919	Replace Torrey 138 kV breaker 'W'	AEP (100%)
b1032.1	Construct a new 345/138kV station on the Marquis-Bixby 345 kV line near the intersection with Ross - Highland 69 kV	AEP (89.97%) / Dayton (10.03%)
b1032.2	Construct two 138 kV outlets to Delano 138 kV station and to Camp Sherman station	AEP (89.97%) / Dayton (10.03%)
b1032.3	Convert Ross - Circleville 69kV to 138 kV	AEP (89.97%) / Dayton (10.03%)
b1032.4	Install 138/69 kV transformer at new station and connect in the Ross - Highland 69 kV line	AEP (89.97%) / Dayton (10.03%)
b1033	Add a third delivery point from AEP's East Danville Station to the City of Danville	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1034.1	Establish new South Canton - West Canton 138 kV line (replacing Torrey - West Canton) and Wagenhals – Wayview 138 kV	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.2	Loop the existing South Canton - Wayview 138 kV circuit in-and-out of West Canton	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.3	Install a 345/138 kV 450 MVA transformer at Canton Central	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.4	Rebuild/reconductor the Sunnyside - Torrey 138 kV line	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.5	Disconnect/eliminate the West Canton 138 kV terminal at Torrey Station	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.6	Replace all 138 kV circuit breakers at South Canton Station and operate the station in a breaker and a half configuration	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1034.7	Replace all obsolete 138 kV circuit breakers at the Torrey and Wagenhals stations	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1034.8	Install additional 138 kV circuit breakers at the West Canton, South Canton, Canton Central, and Wagenhals stations to accommodate the new circuits	AEP (96.01%) / APS (0.62%) / ComEd (0.19%) / Dayton (0.44%) / DL (0.13%) / PENELEC (2.61%)
b1035	Establish a third 345 kV breaker string in the West Millersport Station. Construct a new West Millersport – Gahanna 138 kV circuit. Miscellaneous improvements to 138 kV transmission system	AEP (100%)
b1036	Upgrade terminal equipment at Poston Station and update remote end relays	AEP (100%)
b1037	Sag check Bonsack–Cloverdale 138 kV, Cloverdale–Centerville 138 kV, Centerville–Ivy Hill 138 kV, Ivy Hill–Reusens 138 kV, Bonsack–Reusens 138 kV and Reusens–Monel–Gomingo–Joshua Falls 138 kV	AEP (100%)
b1038	Check the Crooksville - Muskingum 138 kV sag and perform the required work to improve the emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1039	Perform a sag study for the Madison – Cross Street 138 kV line and perform the required work to improve the emergency rating	AEP (100%)
b1040	Rebuild an 0.065 mile section of the New Carlisle – Olive 138 kV line and change the 138 kV line switches at New Carlisle	AEP (100%)
b1041	Perform a sag study for the Moseley - Roanoke 138 kV to increase the emergency rating	AEP (100%)
b1042	Perform sag studies to raise the emergency rating of Amos – Poca 138 kV	AEP (100%)
b1043	Perform sag studies to raise the emergency rating of Turner - Ruth 138 kV	AEP (100%)
b1044	Perform sag studies to raise the emergency rating of Kenova – South Point 138 kV	AEP (100%)
b1045	Perform sag studies of Tri State - Darrah 138 kV	AEP (100%)
b1046	Perform sag study of Scottsville – Bremo 138 kV to raise the emergency rating	AEP (100%)
b1047	Perform sag study of Otter Switch - Altavista 138 kV to raise the emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1048	Reconductor the Bixby - Three C - Groves and Bixby - Groves 138 kV tower line	AEP (100%)
b1049	Upgrade the risers at the Riverside station to increase the rating of Benton Harbor – Riverside 138 kV	AEP (100%)
b1050	Rebuilding and reconductor the Bixby – Pickerington Road - West Lancaster 138 kV line	AEP (100%)
b1051	Perform a sag study for the Kenzie Creek – Pokagon 138 kV line and perform the required work to improve the emergency rating	AEP (100%)
b1052	Unsix-wire the existing Hyatt - Sawmill 138 kV line to form two Hyatt - Sawmill 138 kV circuits	AEP (100%)
b1053	Perform a sag study and remediation of 32 miles between Claytor and Matt Funk.	AEP (100%)
b1091	Add 28.8 MVAR 138 kV capacitor bank at Huffman and 43.2 MVAR 138 kV Bank at Jubal Early and 52.8 MVAR 138 kV Bank at Progress Park Stations	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1092	Add 28.8 MVAR 138 kV capacitor bank at Sullivan Gardens and 52.8 MVAR 138 kV Bank at Reedy Creek Stations	AEP (100%)
b1093	Add a 43.2 MVAR capacitor bank at the Morgan Fork 138 kV Station	AEP (100%)
b1094	Add a 64.8 MVAR capacitor bank at the West Huntington 138 kV Station	AEP (100%)
b1108	Replace Ohio Central 138 kV breaker 'C2'	AEP (100%)
b1109	Replace Ohio Central 138 kV breaker 'D1'	AEP (100%)
b1110	Replace Sporn A 138 kV breaker 'J'	AEP (100%)
b1111	Replace Sporn A 138 kV breaker 'J2'	AEP (100%)
b1112	Replace Sporn A 138 kV breaker 'L'	AEP (100%)
b1113	Replace Sporn A 138 kV breaker 'L1'	AEP (100%)
b1114	Replace Sporn A 138 kV breaker 'L2'	AEP (100%)
b1115	Replace Sporn A 138 kV breaker 'N'	AEP (100%)
b1116	Replace Sporn A 138 kV breaker 'N2'	AEP (100%)
b1227	Perform a sag study on Altavista – Leesville 138 kV circuit	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1231 Replace the existing 138/69-12 kV transformer at West Moulton Station with a 138/69 kV transformer and a 69/12 kV transformer		AEP (96.69%) / Dayton (3.31%)
b1375 Replace Roanoke 138 kV breaker 'T'		AEP (100%)
b1376 Replace Roanoke 138 kV breaker 'E'		AEP (100%)
b1377 Replace Roanoke 138 kV breaker 'F'		AEP (100%)
b1378 Replace Roanoke 138 kV breaker 'G'		AEP (100%)
b1379 Replace Roanoke 138 kV breaker 'B'		AEP (100%)
b1380 Replace Roanoke 138 kV breaker 'A'		AEP (100%)
b1381 Replace Olive 345 kV breaker 'E'		AEP (100%)
b1382 Replace Olive 345 kV breaker 'R2'		AEP (100%)
b1416 Perform a sag study on the Desoto – Deer Creek 138 kV line to increase the emergency rating		AEP (100%)
b1417 Perform a sag study on the Delaware – Madison 138 kV line to increase the emergency rating		AEP (100%)
b1418 Perform a sag study on the Rockhill – East Lima 138 kV line to increase the emergency rating		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1419	Perform a sag study on the Findlay Center – Fostoria Ctl 138 kV line to increase the emergency rating	AEP (100%)
b1420	A sag study will be required to increase the emergency rating for this line. Depending on the outcome of this study, more action may be required in order to increase the rating	AEP (100%)
b1421	Perform a sag study on the Sorenson – McKinley 138 kV line to increase the emergency rating	AEP (100%)
b1422	Perform a sag study on John Amos – St. Albans 138 kV line to allow for operation up to its conductor emergency rating	AEP (100%)
b1423	A sag study will be performed on the Chemical – Capitol Hill 138 kV line to determine if the emergency rating can be utilized	AEP (100%)
b1424	Perform a sag study for Benton Harbor – West Street – Hartford 138 kV line to improve the emergency rating	AEP (100%)
b1425	Perform a sag study for the East Monument – East Danville 138 kV line to allow for operation up to the conductor's maximum operating temperature	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1426 Perform a sag study for the Reusens – Graves 138 kV line to allow for operation up to the conductor’s maximum operating temperature		AEP (100%)
b1427 Perform a sag study on Smith Mountain – Leesville – Altavista – Otter 138 kV and on Boones – Forest – New London – JohnsMT – Otter		AEP (100%)
b1428 Perform a sag study on Smith Mountain – Candler’s Mountain 138 kV and Joshua Falls – Cloverdale 765 kV to allow for operation up to		AEP (100%)
b1429 Perform a sag study on Fremont – Clinch River 138 kV to allow for operation up to its conductor emergency ratings		AEP (100%)
b1430 Install a new 138 kV circuit breaker at Benton Harbor station and move the load from Watervliet 34.5 kV station to West street 138 kV		AEP (100%)
b1432 Perform a sag study on the Kenova – Tri State 138 kV line to allow for operation up to their conductor emergency rating		AEP (100%)
b1433 Replace risers in the West Huntington Station to increase the line ratings which would eliminate the overloads for the contingencies listed		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1434 Perform a sag study on the line from Desoto to Madison. Replace bus and risers at Daleville station and replace bus and risers at Madison		AEP (100%)
b1435 Replace the 2870 MCM ACSR riser at the Sporn station		AEP (100%)
b1436 Perform a sag study on the Sorenson – Illinois Road 138 kV line to increase the emergency MOT for this line. Replace bus and risers at Illinois Road		AEP (100%)
b1437 Perform sag study on Rock Cr. – Hummel Cr. 138 kV to increase the emergency MOT for the line, replace bus and risers at Huntington J., and replace relays for Hummel Cr. – Hunt – Soren. Line at Soren		AEP (100%)
b1438 Replacement of risers at McKinley and Industrial Park stations and performance of a sag study for the 4.53 miles of 795 ACSR section is expected to improve the Summer Emergency rating to 335 MVA		AEP (100%)
b1439 By replacing the risers at Lincoln both the Summer Normal and Summer Emergency ratings will improve to 268 MVA		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1440	By replacing the breakers at Lincoln the Summer Emergency rating will improve to 251 MVA	AEP (100%)
b1441	Replacement of risers at South Side and performance of a sag study for the 1.91 miles of 795 ACSR section is expected to improve the Summer Emergency rating to 335 MVA	AEP (100%)
b1442	Replacement of 954 ACSR conductor with 1033 ACSR and performance of a sag study for the 4.54 miles of 2-636 ACSR section is expected	AEP (100%)
b1443	Station work at Thelma and Busseyville Stations will be performed to replace bus and risers	AEP (100%)
b1444	Perform electrical clearance studies on Clinch River – Clinchfield 139 kV line (a.k.a. sag studies) to determine if the emergency ratings can be utilized	AEP (100%)
b1445	Perform a sag study on the Addison (Buckeye CO-OP) – Thinever and North Crown City – Thivener 138 kV sag study and switch	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1446	Perform a sag study on the Parkersburg (Allegheny Power) – Belpre (AEP) 138 kV	AEP (100%)
b1447	Dexter – Elliot tap 138 kV sag check	AEP (100%)
b1448	Dexter – Meigs 138 kV Electrical Clearance Study	AEP (100%)
b1449	Meigs tap – Rutland 138 kV sag check	AEP (100%)
b1450	Muskingum – North Muskingum 138 kV sag check	AEP (100%)
b1451	North Newark – Sharp Road 138 kV sag check	AEP (100%)
b1452	North Zanesville – Zanesville 138 kV sag check	AEP (100%)
b1453	North Zanesville – Powelson and Ohio Central – Powelson 138 kV sag check	AEP (100%)
b1454	Perform an electrical clearance study on the Ross – Delano – Scioto Trail 138 kV line to determine if the emergency rating can be utilized	AEP (100%)
b1455	Perform a sag check on the Sunny – Canton Central – Wagenhals 138 kV line to determine if all circuits can be operated at their summer emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1456	The Tidd – West Bellaire 345 kV circuit has been de-rated to its normal rating and would need an electrical clearance study to determine if the emergency rating can be utilized	AEP (100%)
b1457	The Tiltonsville – Windsor 138 kV circuit has been derated to its normal rating and would need an electrical clearance study to determine if the emergency rating could be utilized	AEP (100%)
b1458	Install three new 345 kV breakers at Bixby to separate the Marquis 345 kV line and transformer #2. Operate Circleville – Harrison 138 kV and Harrison – Zuber 138 kV up to conductor emergency ratings	AEP (100%)
b1459	Several circuits have been de-rated to their normal conductor ratings and could benefit from electrical clearance studies to determine if the emergency rating could be utilized	AEP (100%)
b1460	Replace 2156 & 2874 risers	AEP (100%)
b1461	Replace meter, metering CTs and associated equipment at the Paden City feeder	AEP (100%)
b1462	Replace relays at both South Cadiz 138 kV and Tidd 138 kV	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1463	Reconductor the Bexley – Groves 138 kV circuit	AEP (100%)
b1464	Corner 138 kV upgrades	AEP (100%)
b1465.1	Add a 3rd 2250 MVA 765/345 kV transformer at Sullivan station	AEC (0.71%) / AEP (75.06%) / APS (1.25%) / BGE (1.81%) / ComEd (5.91%) / Dayton (0.86%) / DL (1.23%) / DPL (0.95%) / Dominion (3.89%) / JCPL (1.58%) / NEPTUNE* (0.15%) / HTP*** (0.07%) / PECO (2.08%) / PEPCO (1.66%) / ECP** (0.07%) / PSEG (2.62%) / RE (0.10%)
b1465.2	Replace the 100 MVAR 765 kV shunt reactor bank on Rockport – Jefferson 765 kV line with a 300 MVAR bank at Rockport Station	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEP (100%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1465.3	Transpose the Rockport – Sullivan 765 kV line and the Rockport – Jefferson 765 kV line		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEP (100%)
b1465.4	Make switching improvements at Sullivan and Jefferson 765 kV stations		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEP (100%)
b1466.1	Create an in and out loop at Adams Station by removing the hard tap that currently exists		AEP (100%)
b1466.2	Upgrade the Adams transformer to 90 MVA		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1466.3	At Seaman Station install a new 138 kV bus and two new 138 kV circuit breakers	AEP (100%)
b1466.4	Convert South Central Co-op's New Market 69 kV Station to 138 kV	AEP (100%)
b1466.5	The Seaman – Highland circuit is already built to 138 kV, but is currently operating at 69 kV, which would now increase to 138 kV	AEP (100%)
b1466.6	At Highland Station, install a new 138 kV bus, three new 138 kV circuit breakers and a new 138/69 kV 90 MVA transformer	AEP (100%)
b1466.7	Using one of the bays at Highland, build a 138 kV circuit from Hillsboro – Highland 138 kV, which is approximately 3 miles	AEP (100%)
b1467.1	Install a 14.4 MVar Capacitor Bank at New Buffalo station	AEP (100%)
b1467.2	Reconfigure the 138 kV bus at LaPorte Junction station to eliminate a contingency resulting in loss of two 138 kV sources serving the LaPorte area	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1468.1	Expand Selma Parker Station and install a 138/69/34.5 kV transformer	AEP (100%)
b1468.2	Rebuild and convert 34.5 kV line to Winchester to 69 kV, including Farmland Station	AEP (100%)
b1468.3	Retire the 34.5 kV line from Haymond to Selma Wire	AEP (100%)
b1469.1	Conversion of the Newcomerstown – Cambridge 34.5 kV system to 69 kV operation	AEP (100%)
b1469.2	Expansion of the Derwent 69 kV Station (including reconfiguration of the 69 kV system)	AEP (100%)
b1469.3	Rebuild 11.8 miles of 69 kV line, and convert additional 34.5 kV stations to 69 kV operation	AEP (100%)
b1470.1	Build a new 138 kV double circuit off the Kanawha – Bailyville #2 138 kV circuit to Skin Fork Station	AEP (100%)
b1470.2	Install a new 138/46 kV transformer at Skin Fork	AEP (100%)
b1470.3	Replace 5 Moab's on the Kanawha – Baileysville line with breakers at the Sundial 138 kV station	AEP (100%)
b1471	Perform a sag study on the East Lima – For Lima – Rockhill 138 kV line to increase the emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1472	Perform a sag study on the East Lima – Haviland 138 kV line to increase the emergency rating	AEP (100%)
b1473	Perform a sag study on the East New Concord – Muskingum River section of the Muskingum River – West Cambridge 138 kV circuit	AEP (100%)
b1474	Perform a sag study on the Ohio Central – Prep Plant tap 138 kV circuit	AEP (100%)
b1475	Perform a sag study on the S73 – North Delphos 138 kV line to increase the emergency rating	AEP (100%)
b1476	Perform a sag study on the S73 – T131 138 kV line to increase the emergency rating	AEP (100%)
b1477	The Natrium – North Martin 138 kV circuit would need an electrical clearance study among other equipment upgrades	AEP (100%)
b1478	Upgrade Strouds Run – Strouds Tap 138 kV relay and riser	AEP (100%)
b1479	West Hebron station upgrades	AEP (100%)
b1480	Perform upgrades and a sag study on the Corner – Layman 138 kV section of the Corner – Muskingum River 138 kV circuit	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1481	Perform a sag study on the West Lima – Eastown Road – Rockhill 138 kV line and replace the 138 kV risers at Rockhill station to increase the emergency rating	AEP (100%)
b1482	Perform a sag study for the Albion – Robison Park 138 kV line to increase its emergency rating	AEP (100%)
b1483	Sag study 1 mile of the Clinch River – Saltville 138 kV line and replace the risers and bus at Clinch River, Lebanon and Elk Garden Stations	AEP (100%)
b1484	Perform a sag study on the Hacienda – Harper 138 kV line to increase the emergency rating	AEP (100%)
b1485	Perform a sag study on the Jackson Road – Concord 183 kV line to increase the emergency rating	AEP (100%)
b1486	The Matt Funk – Poages Mill – Starkey 138 kV line requires	AEP (100%)
b1487	Perform a sag study on the New Carlisle – Trail Creek 138 kV line to increase the emergency rating	AEP (100%)
b1488	Perform a sag study on the Olive – LaPorte Junction 138 kV line to increase the emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1489	A sag study must be performed for the 5.40 mile Tristate – Chadwick 138 kV line to determine if a higher emergency rating can be used	AEP (100%)
b1490.1	Establish a new 138/69 kV Butler Center station	AEP (100%)
b1490.2	Build a new 14 mile 138 kV line from Auburn station to Woods Road station VIA Butler Center station	AEP (100%)
b1490.3	Replace the existing 40 MVA 138/69 kV transformer at Auburn station with a 90 MVA 138/96 kV transformer	AEP (100%)
b1490.4	Improve the switching arrangement at Kendallville station	AEP (100%)
b1491	Replace bus and risers at Thelma and Busseyville stations and perform a sag study for the Big Sandy – Busseyville 138 kV line	AEP (100%)
b1492	Reconductor 0.65 miles of the Glen Lyn – Wythe 138 kV line with 3 – 1590 ACSR	AEP (100%)
b1493	Perform a sag study for the Bellfonte – Grantston 138 kV line to increase its emergency rating	AEP (100%)
b1494	Perform a sag study for the North Proctorville – Solida – Bellefonte 138 kV line to increase its emergency rating	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1495	Add an additional 765/345 kV transformer at Baker Station	AEC (0.41%) / AEP (87.22%) / BGE (1.03%) / ComEd (3.38%) / Dayton (1.23%) / DL (1.46%) / DPL (0.54%) / JCPL (0.90%) / NEPTUNE* (0.09%) / HTP (0.04%) / PECO (1.18%) / PEPCO (0.94%) / ECP** (0.04%) / PSEG (1.48%) / RE (0.06%)
b1496	Replace 138 kV bus and risers at Johnson Mountain Station	AEP (100%)
b1497	Replace 138 kV bus and risers at Leesville Station	AEP (100%)
b1498	Replace 138 kV risers at Wurno Station	AEP (100%)
b1499	Perform a sag study on Sporn A – Gavin 138 kV to determine if the emergency rating can be improved	AEP (100%)
b1500	The North East Canton – Wagenhals 138 kV circuit would need an electrical clearance study to determine if the emergency rating can be utilized	AEP (100%)
b1501	The Moseley – Reusens 138 kV circuit requires a sag study to determine if the emergency rating can be utilized to address a thermal loading issue for a category C3	AEP (100%)

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**East Coast Power, L.L.C.

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1502	Reconductor the Conesville East – Conesville Prep Plant Tap 138 kV section of the Conesville – Ohio Central to fix Reliability N-1-1 thermal overloads	AEP (100%)
b1659	Establish Sorenson 345/138 kV station as a 765/345 kV station	AEP (93.61%) / ATSI (2.99%) / ComEd (2.07%) / HTP (0.03%) / PENELEC (0.31%) / ECP** (0.03%) / PSEG (0.92%) / RE (0.04%)
b1659.1	Replace Sorenson 138 kV breaker 'L1'	AEP (100%)
b1659.2	Replace Sorenson 138 kV breaker 'L2' breaker	AEP (100%)
b1659.3	Replace Sorenson 138 kV breaker 'M1'	AEP (100%)
b1659.4	Replace Sorenson 138 kV breaker 'M2'	AEP (100%)
b1659.5	Replace Sorenson 138 kV breaker 'N1'	AEP (100%)
b1659.6	Replace Sorenson 138 kV breaker 'N2'	AEP (100%)
b1659.7	Replace Sorenson 138 kV breaker 'O1'	AEP (100%)
b1659.8	Replace Sorenson 138 kV breaker 'O2'	AEP (100%)
b1659.9	Replace Sorenson 138 kV breaker 'M'	AEP (100%)
b1659.10	Replace Sorenson 138 kV breaker 'N'	AEP (100%)

**East Coast Power, L.L.C.

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1659.11	Replace Sorenson 138 kV breaker 'O'		AEP (100%)
b1659.12	Replace McKinley 138 kV breaker 'L1'		AEP (100%)
b1659.13	Establish 765 kV yard at Sorenson and install four 765 kV breakers		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEP (79.31%) / Dayton (9.10%) / DEOK (11.59%)
b1659.14	Build approximately 14 miles of 765 kV line from existing Dumont - Marysville line		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEP (69.56%) / ATSI (17.59%) / Dayton (7.73%) / DL (4.96%) / EKPC (0.16%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1660	Install a 765/500 kV transformer at Cloverdale	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: BGE (44.54%) / Dayton (0.16%) / DEOK (0.40%) / Dominion (1.04%) / EKPC (0.24%) / PEPCO (53.62%)</p>
b1661	Install a 765 kV circuit breaker at Wyoming station	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEP (100%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b1662	Rebuild 4 miles of 46 kV line to 138 kV from Pemberton to Cherry Creek		AEP (100%)
b1662.1	Circuit Breakers are installed at Cherry Creek (facing Pemberton) and at Pemberton (facing Tams Mtn. and Cherry Creek)		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1662.2	Install three 138 kV breakers at Grandview Station (facing Cherry Creek, Hinton, and Bradley Stations)	AEP (100%)
b1662.3	Remove Sullivan Switching Station (46 kV)	AEP (100%)
b1663	Install a new 765/138 kV transformer at Jackson Ferry substation	AEP (100%)
b1663.1	Establish a new 10 mile double circuit 138 kV line between Jackson Ferry and Wythe	AEP (100%)
b1663.2	Install 2 765 kV circuit breakers, breaker disconnect switches and associated bus work for the new 765 kV breakers, and new relays for the 765 kV breakers at Jackson's Ferry	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEP (100%)
b1664	Install switched capacitor banks at Kenwood 138 kV stations	AEP (100%)
b1665	Install a second 138/69 kV transformer at Thelma station	AEP (100%)
b1665.1	Construct a single circuit 69 kV line from West Paintsville to the new Paintsville station	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1665.2	Install new 7.2 MVAR, 46 kV bank at Kenwood Station	AEP (100%)
b1666	Build an 8 breaker 138 kV station tapping both circuits of the Fostoria - East Lima 138 kV line	AEP (90.65%) / Dayton (9.35%)
b1667	Establish Melmore as a switching station with both 138 kV circuits terminating at Melmore. Extend the double circuit 138 kV line from Melmore to Fremont Center	AEP (100%)
b1668	Revise the capacitor setting at Riverside 138 kV station	AEP (100%)
b1669	Capacitor setting changes at Ross 138 kV stations	AEP (100%)
b1670	Capacitor setting changes at Wooster 138 kV station	AEP (100%)
b1671	Install four 138 kV breakers in Danville area	AEP (100%)
b1676	Replace Natrium 138 kV breaker 'G (rehab)'	AEP (100%)
b1677	Replace Huntley 138 kV breaker '106'	AEP (100%)
b1678	Replace Kammer 138 kV breaker 'G'	AEP (100%)
b1679	Replace Kammer 138 kV breaker 'H'	AEP (100%)
b1680	Replace Kammer 138 kV breaker 'J'	AEP (100%)
b1681	Replace Kammer 138 kV breaker 'K'	AEP (100%)
b1682	Replace Kammer 138 kV breaker 'M'	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1683	Replace Kammer 138 kV breaker 'N'	AEP (100%)
b1684	Replace Clinch River 138 kV breaker 'E1'	AEP (100%)
b1685	Replace Lincoln 138 kV breaker 'D'	AEP (100%)
b1687	Advance s0251.7 (Replace Corrid 138 kV breaker '104S')	AEP (100%)
b1688	Advance s0251.8 (Replace Corrid 138 kV breaker '104C')	AEP (100%)
b1712.1	Perform sag study on Altavista - Leesville 138 kV line	Dominion (75.30%) / PEPCO (24.70%)
b1712.2	Rebuild the Altavista - Leesville 138 kV line	Dominion (75.30%) / PEPCO (24.70%)
b1733	Perform a sag study of the Bluff Point - Jauby 138 kV line. Upgrade breaker, wavetrap, and risers at the terminal ends	AEP (100%)
b1734	Perform a sag study of Randolph - Hodgins 138 kV line. Upgrade terminal equipment	AEP (100%)
b1735	Perform a sag study of R03 - Magely 138 kV line. Upgrade terminal equipment	AEP (100%)
b1736	Perform a sag study of the Industrial Park - Summit 138 kV line	AEP (100%)
b1737	Sag study of Newcomerstown - Hillview 138 kV line. Upgrade - terminal equipment	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1738	Perform a sag study of the Wolf Creek - Layman 138 kV line. -Upgrade terminal equipment including a 138 kV breaker and wavetrap	AEP (100%)
b1739	Perform a sag study of the Ohio Central - West Trinway 138 kV line	AEP (100%)
b1741	Replace Beatty 138 kV breaker '2C(IPP)'	AEP (100%)
b1742	Replace Beatty 138 kV breaker '1E'	AEP (100%)
b1743	Replace Beatty 138 kV breaker '2E'	AEP (100%)
b1744	Replace Beatty 138 kV breaker '3C'	AEP (100%)
b1745	Replace Beatty 138 kV breaker '2W'	AEP (100%)
b1746	Replace St. Claire 138 kV breaker '8'	AEP (100%)
b1747	Replace Cloverdale 138 kV breaker 'C'	AEP (100%)
b1748	Replace Cloverdale 138 kV breaker 'D1'	AEP (100%)
b1780	Install two 138 kV breakers and two 138 kV circuit switchers at South Princeton Station and one 138 kV breaker and one 138 kV circuit switcher at Switchback Station	AEP (100%)
b1781	Install three 138 kV breakers and a 138 kV circuit switcher at Trail Fork Station in Pineville, WV	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1782	Install a 46 kV Moab at Montgomery Station facing Carbondale (on the London - Carbondale 46 kV circuit)	AEP (100%)
b1783	Add two 138 kV Circuit Breakers and two 138 kV circuit switchers on the Lonesome Pine - South Bluefield 138 kV line	AEP (100%)
b1784	Install a 52.8 MVAR capacitor bank at the Clifford 138 kV station	AEP (100%)
b1811.1	Perform a sag study of 4 miles of the Waterford - Muskingum line	AEP (100%)
b1811.2	Rebuild 0.1 miles of Waterford - Muskingum 345 kV with 1590 ACSR	AEP (100%)
b1812	Reconductor the AEP portion of the South Canton - Harmon 345 kV with 954 ACSR and upgrade terminal equipment at South Canton. Expected rating is 1800 MVA S/N and 1800 MVA S/E	AEP (100%)
b1817	Install (3) 345 kV circuit breakers at East Elkhart station in ring bus designed as a breaker and half scheme	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1818	Expand the Allen station by installing a second 345/138 kV transformer and adding four 138 kV exits by cutting in the Lincoln - Sterling and Milan - Timber Switch 138 kV double circuit tower line	AEP (88.30%) / ATSI (8.86%) / Dayton (2.84%)
b1819	Rebuild the Robinson Park - Sorenson 138 kV line corridor as a 345 kV double circuit line with one side operated at 345 kV and one side at 138 kV	AEP (87.18%) / ATSI (10.06%) / Dayton (2.76%)
b1859	Perform a sag study for Hancock - Cave Spring - Roanoke 138 kV circuit to reach new SE ratings of 272 MVA (Cave Spring-Hancock), 205 MVA (Cave Spring-Sunscape), 245 MVA (ROANO2-Sunscape)	AEP (100%)
b1860	Perform a sag study on the Crooksville - Spencer Ridge section (14.3 miles) of the Crooksville-Poston-Strouds Run 138 kV circuit to see if any remedial action needed to reach the SE rating (175 MVA)	AEP (100%)
b1861	Reconductor 0.83 miles of the Dale - West Canton 138 kV Tie-line and upgrade risers at West Canton 138 kV	AEP (100%)
b1862	Perform a sag study on the Grant - Greentown 138 kV circuit and replace the relay CT at Grant 138 kV station to see if any remedial action needed to reach the new ratings of 251/286 MVA	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1863	Perform a sag study of the Kammer - Wayman SW 138 kV line to see if any remedial action needed to reach the new SE rating of 284 MVA	AEP (100%)
b1864.1	Add two additional 345/138 kV transformers at Kammer	AEP (87.22%) / APS (8.22%) / ATSI (3.52%) / DL (1.04%)
b1864.2	Add second West Bellaire - Brues 138 kV circuit	AEP (87.22%) / APS (8.22%) / ATSI (3.52%) / DL (1.04%)
b1864.3	Replace Kammer 138 kV breaker 'E'	AEP (100%)
b1865	Perform a sag study on the Kanawha - Carbondale 138 kV line to see if any remedial action needed to reach the new ratings of 251/335 MVA	AEP (100%)
b1866	Perform a sag study on the Clinch River-Lock Hart-Dorton 138 kV line, increase the Relay Compliance Trip Limit at Clinch River on the C.R.-Dorton 138 kV line to 310 and upgrade the risers with 1590 ACSR	AEP (100%)
b1867	Perform a sag study on the Newcomerstown - South Coshocton 138 kV line to see if any remedial action is needed to reach the new SE rating of 179 MVA	AEP (100%)
b1868	Perform sag study on the East Lima - new Liberty 138 kV line to see if any remedial action is needed to reach the new SE rating of 219 MVA	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1869	Perform a sag study of the Ohio Central - South Coshocton 138 kV circuit to see if any remedial action needed to reach the new SE ratings of 250 MVA	AEP (100%)
b1870	Replace the Ohio Central transformer #1 345/138/12 kV 450 MVA for a 345/138/34.5 kV 675 MVA transformer	AEP (68.16%) / ATSI (25.27%) / Dayton (3.88%) / PENELEC (1.59%) / DEOK (1.10%)
b1871	Perform a sag study on the Central - West Coshocton 138 kV line (improving the emergency rating of this line to 254 MVA)	AEP (100%)
b1872	Add a 57.6 MVar capacitor bank at East Elkhart 138 kv station in Indiana	AEP (100%)
b1873	Install two 138 kV circuit breakers at Cedar Creek Station and primary side circuit switcher on the 138/69/46 kV transformer	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1874	Install two 138 kV circuit breakers and one 138 kV circuit switcher at Magely 138 kV station in Indiana	AEP (100%)
b1875	Build 25 miles of new 138 kV line from Bradley Station through Tower 117 Station and terminating at McClung 138 kV station. Existing 69 kV distribution transformers will be replaced with 138 kV transformers	APS (100%)
b1876	Install a 14.4 MVar capacitor bank at Capital Avenue (AKA Currant Road) 34.5 kV bus	AEP (100%)
b1877	Relocate 138 kV Breaker G to the West Kingsport - Industry Drive 138 kV line and Remove 138 kV MOAB	AEP (100%)
b1878	Perform a sag study on the Lincoln - Robinson Park 138 kV line (Improve the emergency rating to 244 MVA)	AEP (100%)
b1879	Perform a sag study on the Hansonville - Meadowview 138 kV line (Improve the emergency rating to 245 MVA)	AEP (100%)
b1880	Rebuild the 15 miles of the Moseley - Roanoke 138 kV line. This project would consist of rebuilding both circuits on the double circuit line	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1881	Replace existing 600 Amp switches, station risers and increase the CT ratios associated with breaker 'G' at Sterling 138 kV Station. It will increase the rating to 296 MVA S/N and 384 MVA S/E	AEP (100%)
b1882	Perform a sag study on the Bluff Point - Randolph 138 kV line to see if any remedial action needed to reach the new SE rating of 255 MVA	AEP (100%)
b1883	Switch the breaker position of transformer #1 and SW Lima at East Lima 345 kV bus	AEP (100%)
b1884	Perform a sag study on Strawton station - Fisher Body - Deer Creek 138 kV line to see if any remedial action needed to reach the new SE rating of 250 MVA	AEP (100%)
b1887	Establish a new 138/69 kV source at Carrollton and construct two new 69 kV lines from Carrollton to tie into the Dennison - Miller SW 69 kV line and to East Dover 69 kV station respectively	AEP (100%)
b1888	Install a 69 kV line breaker at Blue Pennant 69 kV Station facing Bim Station and 14.4 MVar capacitor bank	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1889	Install a 43.2 MVAR capacitor bank at Hinton 138 kV station (APCO WV)	AEP (100%)
b1901	Rebuild the Ohio Central - West Trinway (4.84 miles) section of the Academia - Ohio Central 138 kV circuit. Upgrade the Ohio Central riser, Ohio Central switch and the West Trinway riser	AEP (100%)
b1904.1	Construct new 138/69 Michiana Station near Bridgman by tapping the new Carlisle - Main Street 138 kV and the Bridgman - Buchanan Hydro 69 kV line	AEP (100%)
b1904.2	Establish a new 138/12 kV New Galien station by tapping the Olive - Hickory Creek 138 kV line	AEP (100%)
b1904.3	Retire the existing Galien station and move its distribution load to New Galien station. Retire the Buchanan Hydro - New Carlisle 34.5 kV line	AEP (100%)
b1904.4	Implement an in and out scheme at Cook 69 kV by eliminating the Cook 69 kV tap point and by installing two new 69 kV circuit breakers	AEP (100%)
b1904.5	Rebuild the Bridgman - Cook 69 kV and the Derby - Cook 69 kV lines	AEP (100%)
b1946	Perform a sag study on the Brues – West Bellaire 138 kV line	AEP (100%)
b1947	A sag study of the Dequine - Meadowlake 345 kV line #1 line may improve the emergency rating to 1400 MVA	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1948	Establish a new 765/345 interconnection at Sporn. Install a 765/345 kV transformer at Mountaineer and build ¾ mile of 345 kV to Sporn	ATSI (61.08%) / DL (21.87%) / Dominion (13.97%) / PENELEC (3.08%)
b1949	Perform a sag study on the Grant Tap – Deer Creek 138 kV line and replace bus and risers at Deer Creek station	AEP (100%)
b1950	Perform a sag study on the Kammer – Ormet 138 kV line of the conductor section	AEP (100%)
b1951	Perform a sag study of the Maddox- Convoy 345 kV line to improve the emergency rating to 1400 MVA	AEP (100%)
b1952	Perform a sag study of the Maddox – T130 345 kV line to improve the emergency rating to 1400 MVA	AEP (100%)
b1953	Perform a sag study of the Meadowlake - Olive 345 kV line to improve the emergency rating to 1400 MVA	AEP (100%)
b1954	Perform a sag study on the Milan - Harper 138 kV line and replace bus and switches at Milan Switch station	AEP (100%)
b1955	Perform a sag study of the R-049 - Tillman 138 kV line may improve the emergency rating to 245 MVA	AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b1956	Perform a sag study of the Tillman - Dawkins 138 kV line may improve the emergency rating to 245 MVA		AEP (100%)
b1957	Terminate Transformer #2 at SW Lima in a new bay position		AEP (69.41%) / ATSI (23.11%) / ECP** (0.17%) / HTP (0.19%) / PENELEC (2.42%) / PSEG (4.52%) / RE (0.18%)
b1958	Perform a sag study on the Brookside - Howard 138 kV line and replace bus and risers at AEP Howard station		AEP (100%)
b1960	Sag Study on 7.2 miles SE Canton-Canton Central 138 kV ckt		AEP (100%)
b1961	Sag study on the Southeast Canton – Sunnyside 138 kV line		AEP (100%)

**East Coast Power, L.L.C.

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1962	Add four 765 kV breakers at Kammer	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEP (100%)
b1963	Build approximately 1 mile of circuit comprising of 2-954 ACSR to get the rating of Waterford-Muskinum 345 kV higher	AEP (100%)
b1970	Reconductor 13 miles of the Kammer – West Bellaire 345 kV circuit	APS (33.51%) / ATSI (32.21%) / DL (18.64%) / Dominion (6.01%) / ECP** (0.10%) / HTP (0.11%) / JCPL (1.68%) / NEPTUNE* (0.18%) / PENELEC (4.58%) / PSEG (2.87%) / RE (0.11%)
b1971	Perform a sag study to improve the emergency rating on the Bridgville – Chandlersville 138 kV line	AEP (100%)
b1972	Replace disconnect switch on the South Canton 765/345 kV transformer	AEP (100%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1973	Perform a sag study to improve the emergency rating on the Carrollton – Sunnyside 138 kV line	AEP (100%)
b1974	Perform a sag study to improve the emergency rating on the Bethel Church – West Dover 138 kV line	AEP (100%)
b1975	Replace a switch at South Millersburg switch station	AEP (100%)
b2017	Reconductor or rebuild Sporn - Waterford - Muskingum River 345 kV line	ATSI (37.04%) / AEP (34.35%) / DL (10.41%) / Dominion (6.19%) / APS (3.94%) / PENELEC (3.09%) / JCPL (1.39%) / Dayton (1.20%) / NEPTUNE* (0.14%) / HTP (0.09%) / ECP** (0.08%) / PSEG (2.00%) / RE (0.08%)
b2018	Loop Conesville - Bixby 345 kV circuit into Ohio Central	ATSI (58.58%) / AEP (14.16%) / APS (12.88%) / DL (7.93%) / PENELEC (5.73%) / Dayton (0.72%)
b2019	Establish Burger 345/138 kV station	AEP (93.74%) / APS (4.40%) / DL (1.11%) / ATSI (0.74%) / PENELEC (0.01%)
b2020	Rebuild Amos - Kanawah River 138 kV corridor	AEP (88.39%) / APS (7.12%) / ATSI (2.89%) / DEOK (1.58%) / PEPCO (0.02%)
b2021	Add 345/138 transformer at Sporn, Kanawah River & Muskingum River stations	AEP (91.92%) / DEOK (3.60%) / APS (2.19%) / ATSI (1.14%) / DL (1.08%) / PEPCO (0.04%) / BGE (0.03%)
b2021.1	Replace Kanawah 138 kV breaker 'L'	AEP (100%)
b2021.2	Replace Muskingum 138 kV breaker 'HG'	AEP (100%)

*Neptune Regional Transmission System, LLC

**East Coast Power, L.L.C.

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2021.3	Replace Muskingum 138 kV breaker 'HJ'		AEP (100%)
b2021.4	Replace Muskingum 138 kV breaker 'HE'		AEP (100%)
b2021.5	Replace Muskingum 138 kV breaker 'HD'		AEP (100%)
b2021.6	Replace Muskingum 138 kV breaker 'HF'		AEP (100%)
b2021.7	Replace Muskingum 138 kV breaker 'HC'		AEP (100%)
b2021.8	Replace Sporn 138 kV breaker 'D1'		AEP (100%)
b2021.9	Replace Sporn 138 kV breaker 'D2'		AEP (100%)
b2021.10	Replace Sporn 138 kV breaker 'F1'		AEP (100%)
b2021.11	Replace Sporn 138 kV breaker 'F2'		AEP (100%)
b2021.12	Replace Sporn 138 kV breaker 'G'		AEP (100%)
b2021.13	Replace Sporn 138 kV breaker 'G2'		AEP (100%)
b2021.14	Replace Sporn 138 kV breaker 'N1'		AEP (100%)
b2021.15	Replace Kanawah 138 kV breaker 'M'		AEP (100%)
b2022	Terminate Tristate - Kyger Creek 345 kV line at Sporn		AEP (97.99%) / DEOK (2.01%)
b2027	Perform a sag study of the Tidd - Collier 345 kV line		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2028	Perform a sag study on East Lima - North Woodcock 138 kV line to improve the rating	AEP (100%)
b2029	Perform a sag study on Bluebell - Canton Central 138 kV line to improve the rating	AEP (100%)
b2030	Install 345 kV circuit breakers at West Bellaire	AEP (100%)
b2031	Sag study on Tilton - W. Bellaire section 1 (795 ACSR), about 12 miles	AEP (100%)
b2032	Rebuild 138 kV Elliot tap - Poston line	ATSI (73.02%) / Dayton (19.39%) / DL (7.59%)
b2033	Perform a sag study of the Brues - W. Bellaire 138 kV line	AEP (100%)
b2046	Adjust tap settings for Muskingum River transformers	AEP (100%)
b2047	Replace relay at Greenlawn	AEP (100%)
b2048	Replace both 345/138 kV transformers with one bigger transformer	AEP (92.49%) / Dayton (7.51%)
b2049	Replace relay	AEP (100%)
b2050	Perform sag study	AEP (100%)
b2051	Install 3 138 kV breakers and a circuit switcher at Dorton station	AEP (100%)
b2052	Replace transformer	AEP (67.17%) / ATSI (27.37%) / Dayton (3.73%) / PENELEC (1.73%)
b2054	Perform a sag study of Sporn - Rutland 138 kV line	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2069 Replace George Washington 138 kV breaker 'A' with 63 kA rated breaker		AEP (100%)
b2070 Replace Harrison 138 kV breaker '6C' with 63 kA rated breaker		AEP (100%)
b2071 Replace Lincoln 138 kV breaker 'L' with 63 kA rated breaker		AEP (100%)
b2072 Replace Natrum 138 kV breaker 'T' with 63 kA rated breaker		AEP (100%)
b2073 Replace Darrah 138 kV breaker 'B' with 63 kA rated breaker		AEP (100%)
b2074 Replace Wyoming 138 kV breaker 'G' with 80 kA rated breaker		AEP (100%)
b2075 Replace Wyoming 138 kV breaker 'G1' with 80 kA rated breaker		AEP (100%)
b2076 Replace Wyoming 138 kV breaker 'G2' with 80 kA rated breaker		AEP (100%)
b2077 Replace Wyoming 138 kV breaker 'H' with 80 kA rated breaker		AEP (100%)
b2078 Replace Wyoming 138 kV breaker 'H1' with 80 kA rated breaker		AEP (100%)
b2079 Replace Wyoming 138 kV breaker 'H2' with 80kA rated breaker		AEP (100%)
b2080 Replace Wyoming 138 kV breaker 'J' with 80 kA rated breaker		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2081	Replace Wyoming 138 kV breaker 'J1' with 80 kA rated breaker	AEP (100%)
b2082	Replace Wyoming 138 kV breaker 'J2' with 80 kA rated breaker	AEP (100%)
b2083	Replace Natrum 138 kV breaker 'K' with 63 kA rated breaker	AEP (100%)
b2084	Replace Tanner Creek 345 kV breaker 'P' with 63 kA rated breaker	AEP (100%)
b2085	Replace Tanner Creek 345 kV breaker 'P2' with 63 kA rated breaker	AEP (100%)
b2086	Replace Tanner Creek 345 kV breaker 'Q1' with 63 kA rated breaker	AEP (100%)
b2087	Replace South Bend 138 kV breaker 'T' with 63 kA rated breaker	AEP (100%)
b2088	Replace Tidd 138 kV breaker 'L' with 63 kA rated breaker	AEP (100%)
b2089	Replace Tidd 138 kV breaker 'M2' with 63 kA rated breaker	AEP (100%)
b2090	Replace McKinley 138 kV breaker 'A' with 40 kA rated breaker	AEP (100%)
b2091	Replace West Lima 138 kV breaker 'M' with 63 kA rated breaker	AEP (100%)
b2092	Replace George Washington 138 kV breaker 'B' with 63 kA rated breaker	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2093	Replace Turner 138 kV breaker 'W' with 63 kA rated breaker	AEP (100%)
b2135	Build a new 138 kV line from Falling Branch to Merrimac and add a 138/69 kV transformer at Merrimac Station	AEP (100%)
b2160	Add a fourth circuit breaker to the station being built for the U4-038 project (Conelley), rebuild U4-038 - Grant Tap line as double circuit tower line	AEP (100%)
b2161	Rebuild approximately 20 miles of the Allen - S073 double circuit 138 kV line (with one circuit from Allen - Tillman - Timber Switch - S073 and the other circuit from Allen - T-131 - S073) utilizing 1033 ACSR	AEP (100%)
b2162	Perform a sag study to improve the emergency rating of the Belpre - Degussa 138 kV line	AEP (100%)
b2163	Replace breaker and wavetrap at Jay 138 kV station	AEP (100%)

SCHEDULE 12 – APPENDIX

(20) Virginia Electric and Power Company

Required Transmission Enhancements		Annual Revenue Requirement***	Responsible Customer(s)
b0217	Upgrade Mt. Storm - Doubs 500 kV		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: APS (20.09%) / BGE (13.46%) / Dominion (52.77%) / PEPCO (13.68%)
b0222	Install 150 MVAR capacitor at Loudoun 500 kV		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: BGE (8.29%) / Dominion (79.93%) / (11.78%)

* Neptune Regional Transmission System, LLC

*** The Annual Revenue Requirement for all Virginia Electric and Power Company projects in this Section 20 shall be as specified in Attachment 7 to Appendix A of Attachment H-16A and under the procedures detailed in Attachment H-16B.

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0223	Install 150 MVAR capacitor at Asburn 230 kV		Dominion (100%)
b0224	Install 150 MVAR capacitor at Dranesville 230 kV		Dominion (100%)
b0225	Install 33 MVAR capacitor at Possum Pt. 115 kV		Dominion (100%)
b0226	Install 500/230 kV transformer at Clifton and Clifton 500 kV 150 MVAR capacitor	As specified in Attachment 7 to Appendix A of Attachment H-16A and under the procedures detailed in Attachment H-16B	APS (3.69%) / BGE (3.54%) / Dominion (85.73%) / PEPSCO (7.04%)
b0227	Install 500/230 kV transformer at Bristers; build new 230 kV Bristers-Gainsville circuit, upgrade two Loudoun-Brambleton circuits		AEC (0.71%) / APS (3.36%) / BGE (10.93%) / DPL (1.66%) / Dominion (67.38%) / ME (0.89%) / PECO (2.33%) / PEPSCO (12.20%) / PPL (0.54%)
b0227.1	Loudoun Sub – upgrade 6-230 kV breakers		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0231	Install 500 kV breakers & 500 kV bus work at Suffolk		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: Dominion (100%)
b0231.2	Install 500/230 kV Transformer, 230 kV breakers, & 230 kV bus work at Suffolk		Dominion (100%)
b0232	Install 150 MVAR capacitor at Lynnhaven 230 kV		Dominion (100%)
b0233	Install 150 MVAR capacitor at Landstown 230 kV		Dominion (100%)
b0234	Install 150 MVAR capacitor at Greenwich 230 kV		Dominion (100%)
b0235	Install 150 MVAR capacitor at Fentress 230 kV		Dominion (100%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0307	Reconductor Endless Caverns – Mt. Jackson 115 kV		Dominion (100%)
b0308	Replace L breaker and switches at Endless Caverns 115 kV		Dominion (100%)
b0309	Install SPS at Earleys 115 kV		Dominion (100%)
b0310	Reconductor Club House – South Hill and Chase City – South Hill 115 kV		Dominion (100%)
b0311	Reconductor Idylwood to Arlington 230 kV		Dominion (100%)
b0312	Reconductor Gallows to Ox 230 kV		Dominion (100%)
b0325	Install a 2 nd Everetts 230/115 kV transformer		Dominion (100%)
b0326	Uprate/resag Remington-Brandywine-Culppr 115 kV		Dominion (100%)
b0327	Build 2 nd Harrisonburg – Valley 230 kV		APS (19.79%) / Dominion (76.18%) / PEPSCO (4.03%)
b0328.1	Build new Meadow Brook – Loudoun 500 kV circuit (30 of 50 miles)		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: BGE (8.29%) / Dominion (79.93%) / PEPSCO (11.78%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0328.3	Upgrade Mt. Storm 500 kV substation	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (30.25%) / BGE (8.80%) / Dominion (46.80%) / PEPCO (14.15%)
b0328.4	Upgrade Loudoun 500 kV substation	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: BGE (8.29%) / Dominion (79.93%) / PEPCO (11.78%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0329	Build Carson – Suffolk 500 kV, install 2 nd Suffolk 500/230 kV transformer & build Suffolk – Fentress 230 kV circuit	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: Dominion (100%)
b0329.1	Replace Thole Street 115 kV breaker ‘48T196’	Dominion (100%)
b0329.2	Replace Chesapeake 115 kV breaker ‘T242’	Dominion (100%)
b0329.3	Replace Chesapeake 115 kV breaker ‘8722’	Dominion (100%)
b0329.4	Replace Chesapeake 115 kV breaker ‘16422’	Dominion (100%)
b0329.5	Install 2 nd Suffolk 500/230 kV transformer & build Suffolk – Thrasher 230 kV circuit	Dominion (100%)††
b0330	Install Crewe 115 kV breaker and shift load from line 158 to 98	Dominion (100%)
b0331	Upgrade/resag Shell Bank – Whealton 115 kV (Line 165)	Dominion (100%)

* Neptune Regional Transmission System, LLC

††Cost allocations associated with below 500 kV elements of the project

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0332	Uprate/resag Chesapeake – Cradock 115 kV		Dominion (100%)
b0333	Replace wave trap on Elmont – Replace (Line #231)		Dominion (100%)
b0334	Uprate/resag Iron Bridge-Walmsley-Southwest 230 kV		Dominion (100%)
b0335	Build Chase City – Clarksville 115 kV		Dominion (100%)
b0336	Reconductor one span of Chesapeake – Dozier 115 kV close to Dozier substation		Dominion (100%)
b0337	Build Lexington 230 kV ring bus		Dominion (100%)
b0338	Replace Gordonsville 230/115 kV transformer for larger one		Dominion (100%)
b0339	Install Breaker at Dooms 230 kV Sub		Dominion (100%)
b0340	Reconductor one span Peninsula – Magruder 115 kV close to Magruder substation		Dominion (100%)
b0341	Install a breaker at Northern Neck 115 kV		Dominion (100%)
b0342	Replace Trowbridge 230/115 kV transformer		Dominion (100%)
b0403	2 nd Dooms 500/230 kV transformer addition		APS (3.35%) / BGE (4.22%) / DPL (1.10%) / Dominion (83.94%) / PEPCO (7.39%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0412	Retension Pruntytown – Mt. Storm 500 kV to a 3502 MVA rating	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (29.06%) / ATSI (0.01%) / BGE (24.30%) / DEOK (10.11%) / PEPCO (36.52%)
b0450	Install 150 MVAR Capacitor at Fredricksburg 230 kV	Dominion (100%)
b0451	Install 25 MVAR Capacitor at Somerset 115 kV	Dominion (100%)
b0452	Install 150 MVAR Capacitor at Northwest 230 kV	Dominion (100%)
b0453.1	Convert Remington – Sowego 115 kV to 230 kV	APS (0.31%) / BGE (3.01%) / DPL (0.04%) / Dominion (92.75%) / ME (0.03%) / PEPCO (3.86%)
b0453.2	Add Sowego – Gainsville 230 kV	APS (0.31%) / BGE (3.01%) / DPL (0.04%) / Dominion (92.75%) / ME (0.03%) / PEPCO (3.86%)
b0453.3	Add Sowego 230/115 kV transformer	APS (0.31%) / BGE (3.01%) / DPL (0.04%) / Dominion (92.75%) / ME (0.03%) / PEPCO (3.86%)
b0454	Reconductor 2.4 miles of Newport News – Chuckatuck 230 kV	Dominion (100%)

* Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0455	Add 2 nd Endless Caverns 230/115 kV transformer	APS (32.70%) / BGE (7.01%) / DPL (1.80%) / Dominion (50.82%) / PEPCO (7.67%)
b0456	Reconductor 9.4 miles of Edinburg – Mt. Jackson 115 kV	APS (33.69%) / BGE (12.18%) / Dominion (40.08%) / PEPCO (14.05%)
b0457	Replace both wave traps on Doods – Lexington 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: BGE (11.61%) / Dominion (69.16%) / EKPC (4.82%) / (PEPCO 14.41%)
b0467.2	Reconductor the Dickerson – Pleasant View 230 kV circuit	AEC (1.75%) / APS (19.70%) / BGE (22.13%) / DPL (3.70%) / JCPL (0.71%) / ME (2.48%) / NEPTUNE* (0.06%) / PECO (5.54%) / PEPCO (41.86%) / PPL (2.07%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.6	Replace Mount Storm 500 kV breaker 55072	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
b0492.7	Replace Mount Storm 500 kV breaker 55172	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.8	Replace Mount Storm 500 kV breaker H1172- 2	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
b0492.9	Replace Mount Storm 500 kV breaker G2T550	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.10	Replace Mount Storm 500 kV breaker G2T554	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
b0492.11	Replace Mount Storm 500 kV breaker G1T551	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0492.12	Upgrade nameplate rating of Mount Storm 500 kV breakers 55472, 57272, SX172, G3TSX1, G1TH11, G3T572, and SX22	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (5.01%) / AEP (4.39%) / APS (9.26%) / BGE (4.43%) / DL (0.02%) / DPL (6.91%) / Dominion (10.82%) / JCPL (11.64%) / ME (2.94%) / NEPTUNE* (1.12%) / PECO (14.51%) / PEPCO (6.11%) / PPL (6.39%) / PSEG (15.86%) / RE (0.59%)
b0512	MAPP Project – install new 500 kV transmission from Possum Point to Calvert Cliffs and install a DC line from Calvert Cliffs to Vienna and a DC line from Calvert Cliffs to Indian River	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0512.5	Advance n0716 (Ox - Replace 230 kV breaker L242)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)
b0512.6	Advance n0717 (Possum Point - Replace 230 kV breaker SC192)	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (3.94%) / APS (0.33%) / BGE (34.54%) / DPL (14.69%) / Dominion (0.30%) / JCPL (9.43%) / ME (2.16%) / NEPTUNE* (0.90%) / PECO (10.52%) / PEPCO (2.44%) / PPL (5.50%) / PSEG (14.71%) / RE (0.54%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0583	Install dual primary protection schemes on Gosport lines 62 and 51 at the remote terminals (Chesapeake on the 62 line and Reeves Ave on the 51 line)		Dominion (100%)
b0756	Install a second 500/115 kV autotransformer at Chancellor 500 kV		Dominion (100%)
b0756.1	Install two 500 kV breakers at Chancellor 500 kV		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0757	Reconductor one mile of Chesapeake – Reeves Avenue 115 kV line	Dominion (100%)
b0758	Install a second Fredericksburg 230/115 kV autotransformer	Dominion (100%)
b0760	Build 115 kV line from Kitty Hawk to Colington 115 kV (Colington on the existing line and Nag's Head and Light House DP on new line)	Dominion (100%)
b0761	Install a second 230/115 kV transformer at Possum Point	Dominion (100%)
b0762	Build a new Elko station and transfer load from Turner and Providence Forge stations	Dominion (100%)
b0763	Rebuild 17.5 miles of the line for a new summer rating of 262 MVA	Dominion (100%)
b0764	Increase the rating on 2.56 miles of the line between Greenwich and Thompson Corner; new rating to be 257 MVA	Dominion (100%)
b0765	Add a second Bull Run 230/115 kV autotransformer	Dominion (100%)
b0766	Increase the rating of the line between Loudoun and Cedar Grove to at least 150 MVA	Dominion (100%)
b0767	Extend the line from Old Church – Chickahominy 230 kV	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0768	Loop line #251 Idylwood – Arlington into the GIS sub	Dominion (100%)
b0769	Re-tension 15 miles of the line for a new summer rating of 216 MVA	Dominion (100%)
b0770	Add a second 230/115 kV autotransformer at Lanexa	Dominion (100%)
b0770.1	Replace Lanexa 115 kV breaker ‘8532’	Dominion (100%)
b0770.2	Replace Lanexa 115 kV breaker ‘9232’	Dominion (100%)
b0771	Build a parallel Chickahominy – Lanexa 230 kV line	Dominion (100%)
b0772	Install a second Elmont 230/115 kV autotransformer	Dominion (100%)
b0772.1	Replace Elmont 115 kV breaker ‘7392’	Dominion (100%)
b0774	Install a 33 MVAR capacitor at Bremo 115 kV	Dominion (100%)
b0775	Reconductor the Greenwich – Virginia Beach line to bring it up to a summer rating of 261 MVA; Reconductor the Greenwich – Amphibious Base line to bring it up to 291 MVA	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0776	Re-build Trowbridge – Winfall 115 kV	Dominion (100%)
b0777	Terminate the Thelma – Carolina 230 kV circuit into Lakeview 230 kV	Dominion (100%)
b0778	Install 29.7 MVAR capacitor at Lebanon 115 kV	Dominion (100%)
b0779	Build a new 230 kV line from Yorktown to Hayes but operate at 115 kV initially	Dominion (100%)
b0780	Reconductor Chesapeake – Yadkin 115 kV line	Dominion (100%)
b0781	Reconductor and replace terminal equipment on line 17 and replace the wave trap on line 88	Dominion (100%)
b0782	Install a new 115 kV capacitor at Dupont Waynesboro substation	Dominion (100%)
b0784	Replace wave traps on North Anna to Ladysmith 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: Dominion (94.21%) / PEPCO (5.79%)
b0785	Rebuild the Chase City – Crewe 115 kV line	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0786	Reconductor the Moran DP – Crewe 115 kV segment		Dominion (100%)
b0787	Upgrade the Chase City – Twitty’s Creek 115 kV segment		Dominion (100%)
b0788	Reconductor the line from Farmville – Pamplin 115 kV		Dominion (100%)
b0793	Close switch 145T183 to network the lines. Rebuild the section of the line #145 between Possum Point – Minnieville DP 115 kV		Dominion (100%)
b0815	Replace Elmont 230 kV breaker '22192'		Dominion (100%)
b0816	Replace Elmont 230 kV breaker '21692'		Dominion (100%)
b0817	Replace Elmont 230 kV breaker '200992'		Dominion (100%)
b0818	Replace Elmont 230 kV breaker '2009T2032'		Dominion (100%)
b0837	At Mt. Storm, replace the existing MOD on the 500 kV side of the transformer with a circuit breaker		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0888	Replace Loudoun 230 kV Cap breaker 'SC352'		Dominion (100%)
b0892	Replace Chesapeake 115 kV breaker SX522		Dominion (100%)
b0893	Replace Chesapeake 115 kV breaker T202		Dominion (100%)
b0894	Replace Possum Point 115 kV breaker SX-32		Dominion (100%)
b0895	Replace Possum Point 115 kV breaker L92-1		Dominion (100%)
b0896	Replace Possum Point 115 kV breaker L92-2		Dominion (100%)
b0897	Replace Suffolk 115 kV breaker T202		Dominion (100%)
b0898	Replace Peninsula 115 kV breaker SC202		Dominion (100%)
b0921	Reconductor Brambleton - Cochran Mill 230 kV line with 201 Yukon conductor		Dominion (100%)
b0923	Install 50-100 MVAR variable reactor banks at Carson 230 kV		Dominion (100%)
b0924	Install 50-100 MVAR variable reactor banks at Dooms 230 kV		Dominion (100%)
b0925	Install 50-100 MVAR variable reactor banks at Garrisonville 230 kV		Dominion (100%)
b0926	Install 50-100 MVAR variable reactor banks at Hamilton 230 kV		Dominion (100%)
b0927	Install 50-100 MVAR variable reactor banks at Yadkin 230 kV		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0928	Install 50-100 MVAR variable reactor banks at Carolina, Dooms, Everetts, Idylwood, N. Alexandria, N. Anna, Suffolk and Valley 230 kV substations	Dominion (100%)
b1056	Build a 2nd Shawboro – Elizabeth City 230 kV line	Dominion (100%)
b1058	Add a third 230/115 kV transformer at Suffolk substation	Dominion (100%)
b1058.1	Replace Suffolk 115 kV breaker ‘T122’ with a 40 kA breaker	Dominion (100%)
b1058.2	Convert Suffolk 115 kV straight bus to a ring bus for the three 230/115 kV transformers and three 115 kV lines	Dominion (100%)
b1071	Rebuild the existing 115 kV corridor between Landstown - Va Beach Substation for a double circuit arrangement (230 kV & 115 kV)	Dominion (100%)
b1076	Replace existing North Anna 500-230 kV transformer with larger unit	Dominion (100%)
b1087	Replace Cannon Branch 230-115 kV with larger transformer	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1088	Build new Radnor Heights Sub, add new underground circuit from Ballston - Radnor Heights, Tap the Glebe - Davis line and create circuits from Davis - Radnor Heights and Glebe - Radnor Heights		Dominion (100%)
b1089	Install 2nd Burke to Sideburn 230 kV underground cable		Dominion (100%)
b1090	Install a 150 MVAR 230 kV capacitor and one 230 kV breaker at Northwest		Dominion (100%)
b1095	Reconductor Chase City 115 kV bus and add a new tie breaker		Dominion (100%)
b1096	Construct 10 mile double ckt. 230 kV tower line from Loudoun to Middleburg		Dominion (100%)
b1102	Replace Bremo 115 kV breaker '9122'		Dominion (100%)
b1103	Replace Bremo 115 kV breaker '822'		Dominion (100%)
b1172	Build a 4-6 mile long 230 kV line from Hopewell to Bull Hill (Ft Lee) and install a 230-115 kV Tx		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1188	Build new Brambleton 500 kV three breaker ring bus connected to the Loudoun to Pleasant View 500 kV line	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: Dominion (100%)
b1188.1	Replace Loudoun 230 kV breaker '200852' with a 63 kA breaker	Dominion (100%)
b1188.2	Replace Loudoun 230 kV breaker '2008T2094' with a 63 kA breaker	Dominion (100%)
b1188.3	Replace Loudoun 230 kV breaker '204552' with a 63 kA breaker	Dominion (100%)
b1188.4	Replace Loudoun 230 kV breaker '209452' with a 63 kA breaker	Dominion (100%)
b1188.5	Replace Loudoun 230 kV breaker 'WT2045' with a 63 kA breaker	Dominion (100%)
b1188.6	Install one 500/230 kV transformer and two 230 kV breakers at Brambleton	AEC (0.22%) / BGE (7.90%) / DPL (0.59%) / Dominion (75.58%) / ME (0.22%) / PECO (0.73%) / PEPCO (14.76%)

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Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1224	Install 2nd Clover 500/230 kV transformer and a 150 MVar capacitor		BGE (7.56%) / DPL (1.03%) / Dominion (78.21%) / ME (0.77%) / PECO (1.39%) / PEPCO (11.04%)
b1225	Replace Yorktown 115 kV breaker 'L982-1'		Dominion (100%)
b1226	Replace Yorktown 115 kV breaker 'L982-2'		Dominion (100%)
b1279	Line #69 Uprate – Increase rating on Locks – Purdy 115 kV to serve additional load at the Reams delivery point		Dominion (100%)
b1306	Reconfigure 115 kV bus at Endless Caverns substation such that the existing two 230/115 kV transformers at Endless Caverns operate in		Dominion (100%)
b1307	Install a 2nd 230/115 kV transformer at Northern Neck Substation		Dominion (100%)
b1308	Improve LSE's power factor in zone to .973 PF, adjust LTC's at Gordonsville and Remington, move existing shunt capacitor banks		Dominion (100%)
b1309	Install a 230 kV line from Lakeside to Northwest utilizing the idle line and 60 line ROW's and reconductor the existing 221 line between Elmont and Northwest		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1310	Install a 115 kV breaker at Broadnax substation on the South Hill side of Broadnax		Dominion (100%)
b1311	Install a 230 kV 3000 amp breaker at Cranes Corner substation to sectionalize the 2104 line into two lines		Dominion (100%)
b1312	Loop the 2054 line in and out of Hollymeade and place a 230 kV breaker at Hollymeade. This creates two lines: Charlottesville - Hollymeade		Dominion (100%)
b1313	Resag wire to 125C from Chesterfield – Shockoe and replace line switch 1799 with 1200 amp switch. The new rating would be 231 MVA		Dominion (100%)
b1314	Rebuild the 6.8 mile line #100 from Chesterfield to Harrowgate 115 kV for a minimum 300 MBA rating		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1315	Convert line #64 Trowbridge to Winfall to 230 kV and install a 230 kV capacitor bank at Winfall		Dominion (100%)
b1316	Rebuild 10.7 miles of 115 kV line #80, Battleboro – Heartsease DP		Dominion (100%)
b1317	LSE load power factor on the #47 line will need to meet MOA requirements of .973 in 2015 to further resolve this issue through at least 2019		Dominion (100%)
b1318	Install a 115 kV bus tie breaker at Acca substation between the Line #60 and Line #95 breakers		Dominion (100%)
b1319	Resag line #222 to 150 C and upgrade any associated equipment to a 2000A rating to achieve a 706 MVA summer line rating		Dominion (100%)
b1320	Install a 230 kV, 150 MVAR capacitor bank at Southwest substation		Dominion (100%)
b1321	Build a new 230 kV line North Anna – Oak Green and install a 224 MVA 230/115 kV transformer at Oak Green		BGE (0.85%) / Dominion (97.96%) / PEPCO (1.19%)
b1322	Rebuild the 39 Line (Dooms – Sherwood) and the 91 Line (Sherwood – Bremono)		Dominion (100%)
b1323	Install a 224 MVA 230/115 kV transformer at Staunton. Rebuild the 115 kV line #43 section Staunton - Verona		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1324	Install a 115 kV capacitor bank at Oak Ridge. Install a capacitor bank at New Bohemia. Upgrade 230/34.5 kV transformer #3 at Kings Fork	Dominion (100%)
b1325	Rebuild 15 miles of line #2020 Winfall – Elizabeth City with a minimum 900 MVA rating	Dominion (100%)
b1326	Install a third 168 MVA 230/115 kV transformer at Kitty Hawk with a normally open 230 kV breaker and a low side 115 kV breaker	Dominion (100%)
b1327	Rebuild the 20 mile section of line #22 between Kerr Dam – Eatons Ferry substations	Dominion (100%)
b1328	Uprate the 3.63 mile line section between Possum and Dumfries substations, replace the 1600 amp wave trap at Possum Point	AEC (0.66%) / APS (3.59%) / DPL (0.91%) / Dominion (92.94%) / PECO (1.90%)
b1329	Install line-tie breakers at Sterling Park substation and BECO substation	Dominion (100%)
b1330	Install a five breaker ring bus at the expanded Dulles substation to accommodate the existing Dulles Arrangement and support the Metrorail	Dominion (100%)
b1331	Build a 230 kV line from Shawboro to Aydlett tap and connect Aydlett to the new line	Dominion (100%)
b1332	Build Cannon Branch to Nokesville 230 kV line	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1333	Advance n1728 (Replace Possum Point 230 kV breaker H9T237 with an 80 kA breaker)		Dominion (100%)
b1334	Advance n1748 (Replace Ox 230 kV breaker 22042 with a 63 kA breaker)		Dominion (100%)
b1335	Advance n1749 (Replace Ox 230 kV breaker 220T2603 with a 63 kA breaker)		Dominion (100%)
b1336	Advance n1750 (Replace Ox 230 kV breaker 24842 with a 63 kA breaker)		Dominion (100%)
b1337	Advance n1751 (Replace Ox 230 kV breaker 248T2013 with a 63 kA breaker)		Dominion (100%)
b1503.1	Loop Line #2095 in and out of Waxpool approximately 1.5 miles		Dominion (100%)
b1503.2	Construct a new 230 kV line from Brambleton to BECO Substation of approximately 11 miles with approximately 10 miles utilizing the vacant side of existing Line #2095 structures		Dominion (100%)
b1503.3	Install a one 230 kV breaker, Future 230 kV ring-bus at Waxpool Substation		Dominion (100%)
b1503.4	The new Brambleton - BECO line will feed Shellhorn Substation load and Greenway TX's #2&3 load		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1506.1	At Gainesville Substation, create two 115 kV straight-buses with a normally open tie-breaker	Dominion (100%)
b1506.2	Upgrade Line 124 (radial from Loudoun) to a minimum continuous rating of 500 MVA and network it into the 115 kV bus feeding NOVEC's DP at Gainesville	Dominion (100%)
b1506.3	Install two additional 230 kV breakers in the ring at Gainesville (may require substation expansion) to accommodate conversion of NOVEC's Gainesville to Wheeler line	Dominion (100%)
b1506.4	Convert NOVEC's Gainesville-Wheeler line from 115 kV to 230 kV (will require Gainesville DP Upgrade replacement of three transformers total at Atlantic and Wheeler Substations)	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1507	Rebuild Mt Storm – Doubs 500 kV	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: APS (20.09%) / BGE (13.46%) / Dominion (52.77%) / PEPCO (13.68%)</p>
b1508.1	Build a 2nd 230 kV Line Harrisonburg to Endless Caverns	APS (37.05%) / Dominion (62.95%)
b1508.2	Install a 3rd 230-115 kV Tx at Endless Caverns	APS (37.05%) / Dominion (62.95%)
b1508.3	Upgrade a 115 kV shunt capacitor banks at Merck and Edinburg	APS (37.05%) / Dominion (62.95%)
b1536	Advance n1752 (Replace OX 230 breaker 24342 with an (63 kA breaker)	Dominion (100%)
b1537	Advance n1753 (Replace OX 230 breaker 243T2097 with an 63 kA breaker)	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1538	Replace Loudoun 230 kV breaker '29552'		Dominion (100%)
b1571	Replace Acca 115 kV breaker '6072' with 40 kA		Dominion (100%)
b1647	Upgrade the name plate rating at Morrisville 500 kV breaker 'H1T573' with 50 kA breaker		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: Dominion (100%)
b1648	Upgrade name plate rating at Morrisville 500 kV breaker 'H2T545' with 50 kA breaker		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1649	Replace Morrisville 500 kV breaker 'H1T580' with 50 kA breaker	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b1650	Replace Morrisville 500 kV breaker 'H2T569' with 50 kA breaker	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b1651	Replace Loudoun 230 kV breaker '295T2030' with 63 kA breaker	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1652	Replace Ox 230 kV breaker '209742' with 63 kA breaker	Dominion (100%)
b1653	Replace Clifton 230 kV breaker '26582' with 63 kA breaker	Dominion (100%)
b1654	Replace Clifton 230 kV breaker '26682' with 63 kA breaker	Dominion (100%)
b1655	Replace Clifton 230 kV breaker '205182' with 63 kA breaker	Dominion (100%)
b1656	Replace Clifton 230 kV breaker '265T266' with 63 kA breaker	Dominion (100%)
b1657	Replace Clifton 230 kV breaker '2051T2063' with 63 kA breaker	Dominion (100%)
b1694	Rebuild Loudoun - Brambleton 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: BGE (13.48%) / Dominion (73.11%) / PEPCO (13.41%)
b1696	Install a breaker and a half scheme with a minimum of eight 230 kV breakers for five existing lines at Idylwood 230 kV	AEC (0.46%) / APS (4.18%) / BGE (2.02%) / DPL (0.80%) / Dominion (88.45%) / JCPL (0.64%) / ME (0.50%) / NEPTUNE* (0.06%) / PECO (1.55%) / PEPCO (1.34%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1697	Build a 2nd Clark - Idylwood 230 kV line and install 230 kV gas-hybrid breakers at Clark	AEC (1.35%) / APS (15.65%) / BGE (10.53%) / DPL (2.59%) / Dominion (46.97%) / JCPL (2.36%) / ME (1.91%) / NEPTUNE* (0.23%) / PECO (4.48%) / PEPCO (11.23%) / PSEG (2.59%) / RE (0.11%)
b1698	Install a 2nd 500/230 kV transformer at Brambleton	APS (4.21%) / BGE (13.28%) / DPL (1.09%) / Dominion (59.38%) / PEPCO (22.04%)
b1698.1	Install a 500 kV breaker at Brambleton	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1698.6	Replace Brambleton 230 kV breaker '2094T2095'	Dominion (100%)
b1699	Reconfigure Line #203 to feed Edwards Ferry sub radial from Pleasant View 230 kV and install new breaker bay at Pleasant View Sub	Dominion (100%)
b1700	Install a 230/115 kV transformer at the new Liberty substation to relieve Gainesville Transformer #3	Dominion (100%)
b1701	Reconductor line #2104 (Fredericksburg - Cranes Corner 230 kV)	APS (8.66%) / BGE (10.95%) / Dominion (63.30%) / PEPCO (17.09%)
b1724	Install a 2nd 138/115 kV transformer at Edinburg	Dominion (100%)
b1728	Replace the 115/34.5 kV transformer #1 at Hickory with a 230/34.5 kV transformer	Dominion (100%)
b1729	Add 4 breaker ring bus at Burton 115 kV substation and construct a 115 kV line approximately 3.5 miles from Oakwood 115 kV substation to Burton 115 kV substation	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1730	Install a 230/115 kV transformer at a new Liberty substation		Dominion (100%)
b1731	Uprate or rebuild Four Rivers – Kings Dominion 115 kV line or Install capacitors or convert load from 115 kV system to 230 kV system		Dominion (100%)
b1790	Split Wharton 115 kV capacitor bank into two smaller units and add additional reactive support in area by correcting power factor at Pantego 115 kV DP and FivePoints 115 kV DP to minimum of 0.973		Dominion (100%)
b1791	Wreck and rebuild 2.1 mile section of Line #11 section between Gordonsville and Somerset		APS (5.83%) / BGE (6.25%) / Dominion (78.38%) / PEPCO (9.54%)
b1792	Rebuild line #33 Halifax to Chase City, 26 miles. Install 230 kV 4 breaker ring bus		Dominion (100%)
b1793	Wreck and rebuild remaining section of Line #22, 19.5 miles and replace two pole H frame construction built in 1930		Dominion (100%)
b1794	Split 230 kV Line #2056 (Hornertown - Rocky Mount) and double tap line to Battleboro Substation. Expand station, install a 230 kV 3 breaker ring bus and install a 230/115 kV transformer		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1795	Reconductor segment of Line #54 (Carolina to Woodland 115 kV) to a minimum of 300 MVA		Dominion (100%)
b1796	Install 115 kV 25 MVAR capacitor bank at Kitty Hawk Substation		Dominion (100%)
b1797	Wreck and rebuild 7 miles of the Dominion owned section of Cloverdale - Lexington 500 kV		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEP (1.27%) / APS (23.58%) / ATSI (0.69%) / BGE (32.30%) / Dayton (0.27%) / DEOK (0.66%) / Dominion (1.92%) / EKPC (0.38%) / PEPCO (38.93%)
b1798	Build a 450 MVAR SVC and 300 MVAR switched shunt at Loudoun 500 kV		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: BGE (8.29%) / Dominion (79.93%) / PEPCO (11.78%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1799	Build 150 MVAR Switched Shunt at Pleasant View 500 kV	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: APS (0.52%) / APS (3.53%) / DPL (1.02%) / Dominion (90.77%) / ME (0.88%) / PECO (1.82%) / PEPCO (1.46%)</p>
b1805	Install a 250 MVAR SVC at the existing Mt. Storm 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: APS (47.31%) / BGE (20.76%) / PEPCO (31.93%)</p>
b1809	Replace Brambleton 230 kV Breaker '22702'	Dominion (100%)
b1810	Replace Brambleton 230 kV Breaker '227T2094'	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1905.1	Surry to Skiffes Creek 500 kV Line (7 miles overhead)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b1905.2	Surry 500 kV Station Work	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b1905.3	Skiffes Creek 500-230 kV Tx and Switching Station	Dominion (99.84%) / PEPCO (0.16%)
b1905.4	New Skiffes Creek - Whealton 230 kV line	Dominion (99.84%) / PEPCO (0.16%)
b1905.5	Whealton 230 kV breakers	Dominion (99.84%) / PEPCO (0.16%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1905.6	Yorktown 230 kV work	Dominion (99.84%) / PEPCO (0.16%)
b1905.7	Lanexa 115 kV work	Dominion (99.84%) / PEPCO (0.16%)
b1905.8	Surry 230 kV work	Dominion (99.84%) / PEPCO (0.16%)
b1905.9	Kings Mill, Peninmen, Toano, Waller, Warwick	Dominion (99.84%) / PEPCO (0.16%)
b1906.1	At Yadkin 500 kV, install six 500 kV breakers	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: Dominion (100%)
b1906.2	Install a 2nd 230/115 kV TX at Yadkin	Dominion (100%)
b1906.3	Install a 2nd 230/115 kV TX at Chesapeake	Dominion (100%)
b1906.4	Uprate Yadkin – Chesapeake 115 kV	Dominion (100%)
b1906.5	Install a third 500/230 kV TX at Yadkin	Dominion (100%)
b1907	Install a 3rd 500/230 kV TX at Clover	APS (5.83%) / BGE (4.74%) / Dominion (81.79%) / PEPCO (7.64%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1908	Rebuild Lexington – Dooms 500 kV	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: BGE (11.61%) / Dominion (69.16%) / EKPC (4.82%) / PEPCO (14.41%)</p>
b1909	Uprate Bremono – Midlothian 230 kV to its maximum operating temperature	APS (6.31%) / BGE (3.81%) / Dominion (81.90%) / PEPCO (7.98%)
b1910	Build a Suffolk – Yadkin 230 kV line (14 miles) and install 4 breakers	Dominion (100%)
b1911	Add a second Valley 500/230 kV TX	APS (14.85%) / BGE (3.10%) / Dominion (74.12%) / PEPCO (7.93%)
b1912	Install a 500 MVAR SVC at Landstown 230 kV	DEOK (0.46%) / Dominion (99.54%)
b2053	Rebuild 28 mile line	AEP (100%)
b2125	Install four additional 230 kV 100 MVAR variable shunt reactor banks at Clifton, Gallows Road, Garrisonville, and Virginia Hills substations	Dominion (100%)
b2126	Install two additional 230 kV 100 MVAR variable shunt reactor banks at Churchland and Shawboro substations	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2181	Add a motor to an existing switch at Prince George to allow for Sectionalizing scheme for line #2124 and allow for Brickhouse DP to be re-energized from the 115 kV source	Dominion (100%)
b2182	Install 230 kV 4-breaker ring at Enterprise 230 kV to isolate load from transmission system when substation initially built	Dominion (100%)
b2183	Add a motor to an existing switch at Keene Mill to allow for a sectionalizing scheme	Dominion (100%)
b2184	Install a 230 kV breaker at Tarboro to split line #229. Each will feed an autotransformer at Tarboro. Install switches on each autotransformer	Dominion (100%)
b2185	Uprate Line #69 segment Reams DP to Purdy (19 miles) from 41 MVA to 162 MVA by replacing 5 structures and re-sagging the line from 50C to 75C	Dominion (100%)
b2186	Install a 2nd 230-115 kV transformer at Earleys connected to the existing 115 kV and 230 kV ring busses. Add a 115 kV breaker and 230 kV breaker to the ring busses	Dominion (100%)
b2187	Install 4 - 230 kV breakers at Shellhorn 230 kV to isolate load	Dominion (100%)

SCHEDULE 12 – APPENDIX

(22) NAEA Rock Springs, LLC

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0272.2	Replace a wave trap potential transformer at Rock Springs 500 kV substation – 5025 Line Terminal Upgrade	AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)

* Neptune Regional Transmission System, LLC

SCHEDULE 12 – APPENDIX A

(2) Baltimore Gas and Electric Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2219	Install a 115 kV tie breaker at Wagner to create a separation from line 110535 and transformer 110-2	BGE (100%)
b2220	Install four 115 kV breakers at Chestnut Hill	BGE (100%)
b2221	Install an SPS to trip approximately 19 MW load at Green St. and Concord	BGE (100%)
b2307	Install a 230/115 kV transformer at Raphael Rd and construct approximately 3 miles of 115 kV line from Raphael Rd. to Joppatowne. Construct a 115 kV three breaker ring at Joppatowne	BGE (100%)
b2308	Build approximately 3 miles of 115 kV underground line from Bestgate tap to Waugh Chapel. Create two breaker bay at Waugh Chapel to accommodate the new underground circuit	BGE (100%)
b2396	Build a new Camp Small 115 kV station and install 30 MVAR capacitor	BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2396.1	Install a tie breaker at Mays Chapel 115 kV substation	BGE (100%)
b2567	Upgrade the Riverside 115 kV substation strain bus conductors on circuits 115012 and 115011 with double bundled 1272 ACSR to achieve ratings of 491/577 MVA SN/SE on both transformer leads	BGE (100%)
b2568	Reconductor Northwest – Northwest #2 115 kV 110574 substation tie circuit with 2167 ACSR to achieve ratings of 400/462 MVA SN/SE	BGE (100%)
b2752.6	Conastone 230 kV substation tie-in work (install a new circuit breaker at Conastone 230 kV and upgrade any required terminal equipment to terminate the new circuit)	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.7	Reconductor/Rebuild the two Conastone – Northwest 230 kV lines and upgrade terminal equipment on both ends	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.8	Replace the Conastone 230 kV '2322 B5' breaker with a 63 kA breaker	BGE (100%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2752.9	Replace the Conastone 230 kV '2322 B6' breaker with a 63 kA breaker	BGE (100%)
b2766.1	Upgrade substation equipment at Conastone 500 kV to increase facility rating to 2826 MVA normal and 3525 MVA emergency	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: AEC (0.72%) / APS (11.06%) / ATSI (1.43%) / BGE (34.25%) / DPL (1.83%) / PECO (1.80%) / PEPCO (35.49%) / PSEG (12.92%) / RE (0.50%)

*Neptune Regional Transmission System, LLC

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2816	Re-connect the Crane – Windy Edge 110591 & 110592 115 kV circuits into the Northeast Substation with the addition of a new 115 kV 3-breaker bay	BGE (100%)
b2992.1	Reconductor the Conastone to Graceton 230 kV 2323 & 2324 circuits. Replace 7 disconnect switches at Conastone substation	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b2992.2	Add Bundle conductor on the Graceton – Bagley – Raphael Road 2305 & 2313 230 kV circuits	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b2992.3	Replacing short segment of substation conductor on the Windy Edge to Glenarm 110512 115 kV circuit	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b2992.4	Reconductor the Raphael Road – Northeast 2315 & 2337 230 kV circuits	AEP (2.25%) / APS (2.58%) / BGE (44.61%) / ComEd (0.51%) / Dayton (0.40%) / DEOK (1.39%) / DL (0.14%) / Dominion (27.05%) / EKPC (0.52%) / PENELEC (0.02%) / PEPCO (20.53%)
b3228	Replace two (2) relays at Center substation to increase ratings on the Westport to Center 110552 115 kV circuit	BGE (100%)
b3305	Replace Pumphrey 230/115 kV transformer	BGE (100%)

SCHEDULE 12 – APPENDIX A

(3) Delmarva Power & Light Company

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2288	Build a new 138 kV line from Piney Grove – Wattsville		DPL (100%)
b2395	Reconductor the Harmony – Chapel St 138 kV circuit		DPL (100%)
b2569	Replace Terminal equipment at Silverside 69 kV substation		DPL (100%)
b2633.7	Implement high speed relaying utilizing OPGW on Red Lion – Hope Creek 500 kV line		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)
b2633.10	Interconnect the new Silver Run 230 kV substation with existing Red Lion – Cartanza and Red Lion – Cedar Creek 230 kV lines		AEC (8.01%) / BGE (1.94%) / DPL (12.99%) / JCPL (13.85%) / ME (5.88%) / NEPTUNE* (3.45%) / PECO (17.62%) / PPL (14.85%) / PSEG (20.79%) / RE (0.62%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2695	Rebuild Worcester – Ocean Pine 69 kV ckt. 1 to 1400A capability summer emergency	DPL (100%)
b2946	Convert existing Preston 69 kV substation to DPL’s current design standard of a 3-breaker ring bus	DPL (100%)
b2947.1	Upgrade terminal equipment at DPL’s Naamans substation (Darley - Naamans 69 kV)	DPL (100%)
b2947.2	Reconductor 0.11 mile section of Darley - Naamans 69 kV circuit	DPL (100%)
b2948	Upgrade terminal equipment at DPL’s Silverside Road substation (Dupont Edge Moor – Silver R. 69 kV)	DPL (100%)
b2987	Install a 30 MVAR capacitor bank at DPL’s Cool Springs 69 kV substation. The capacitor bank would be installed in two separate 15 MVAR stages allowing DPL operational flexibility	DPL (100%)
b3143.1	Reconductor the Silverside Road – Darley 69 kV circuit	DPL (100%)
b3143.2	Reconductor the Darley – Naamans 69 kV circuit	DPL (100%)
b3143.3	Replace three (3) existing 1200 A disconnect switches with 2000 A disconnect switches and install three (3) new 2000 A disconnect switches at Silverside 69 kV station	DPL (100%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3143.4	Replace two (2) 1200 A disconnect switches with 2000 A disconnect switches. Replace existing 954 ACSR and 500 SDCU stranded bus with two (2) 954 ACSR stranded bus. Reconfigure four (4) CTs from 1200 A to 2000 A and install two (2) new 2000 A disconnect switches and two (2) new 954 ACSR stranded bus at Naamans 69 kV station	DPL (100%)
b3143.5	Replace four (4) 1200 A disconnect switches with 2000 A disconnect switches. Replace existing 954 ACSR and 1272 MCM AL stranded bus with two (2) 954 ACSR stranded bus. Reconfigure eight (8) CTs from 1200 A to 2000 A and install four (4) new 2000 A (310 MVA SE / 351 MVA WE) disconnect switches and two (2) new 954 ACSR (331 MVA SE / 369 MVA WE) stranded bus at Darley 69 kV station	DPL (100%)
b3155	Rebuild approx. 12 miles of Wye Mills – Stevensville line	DPL (100%)
b3224	Replace a disconnect switch and reconductor a short span of the Mt. Pleasant – Middletown tap 138 kV line	DPL (100%)

SCHEDULE 12 – APPENDIX A

(4) Jersey Central Power & Light Company

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2234	260 MVAR reactor at West Wharton 230 kV		JCPL (100%)
b2270	Advance Raritan River - Replace G1047E breaker at the 230 kV Substation		JCPL (100%)
b2271	Advance Raritan River - Replace G1047F breaker at the 230 kV Substation		JCPL (100%)
b2272	Advance Raritan River - Replace T1034E breaker at the 230 kV Substation		JCPL (100%)
b2273	Advance Raritan River - Replace T1034F breaker at the 230 kV Substation		JCPL (100%)
b2274	Advance Raritan River - Replace I1023E breaker at the 230 kV Substation		JCPL (100%)
b2275	Advance Raritan River - Replace I1023F breaker at the 230 kV Substation		JCPL (100%)
b2289	Freneau Substation - upgrade 2.5 inch pipe to bundled 1590 ACSR conductor at the K1025 230 kV Line Terminal		JCPL (100%)
b2292	Replace the Whippany 230 kV breaker B1 (CAP) with 63 kA breaker		JCPL (100%)
b2357	Replace the East Windsor 230 kV breaker 'E1' with 63 kA breaker		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2495	Replace transformer leads on the Glen Gardner 230/34.5 kV #1 transformer	JCPL (100%)
b2496	Replace Franklin 115/34.5 kV transformer #2 with 90 MVA transformer	JCPL (100%)
b2497	Reconductor 0.9 miles of the Captive Plastics to Morris Park 34.5 kV circuit (397ACSR) with 556 ACSR	JCPL (100%)
b2498	Extend 5.8 miles of 34.5 kV circuit from North Branch substation to Lebanon substation with 397 ACSR and install 34.5 kV breaker at Lebanon substation	JCPL (100%)
b2500	Upgrade terminal equipment at Monroe on the Englishtown to Monroe (H34) 34.5 kV circuit	JCPL (100%)
b2570	Upgrade limiting terminal facilities at Feneau, Parlin, and Williams substations	JCPL (100%)
b2571	Upgrade the limiting terminal facilities at both Jackson and North Hanover	JCPL (100%)
b2586	Upgrade the V74 34.5 kV transmission line between Allenhurst and Elberon Substations	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.6	Implement high speed relaying utilizing OPGW on Deans – East Windsor 500 kV	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>
b2633.6.1	Implement high speed relaying utilizing OPGW on East Windsor - New Freedom 500 kV	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>

* Neptune Regional Transmission System, LLC

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2676	Install one (1) 72 MVAR fast switched capacitor at the Englishtown 230 kV substation	JCPL (100%)
b2708	Replace the Oceanview 230/34.5 kV transformer #1	JCPL (100%)
b2709	Replace the Deep Run 230/34.5 kV transformer #1	JCPL (100%)
b2754.2	Install 5 miles of optical ground wire (OPGW) between Gilbert and Springfield 230 kV substations	JCPL (100%)
b2754.3	Install 7 miles of all-dielectric self-supporting (ADSS) fiber optic cable between Morris Park and Northwood 230 kV substations	JCPL (100%)
b2754.6	Upgrade relaying at Morris Park 230 kV	JCPL (100%)
b2754.7	Upgrade relaying at Gilbert 230 kV	JCPL (100%)
b2809	Install a bypass switch at Mount Pleasant 34.5 kV substation to allow the Mount Pleasant substation load to be removed from the N14 line and transfer to O769 line	JCPL (100%)
b3023	Replace West Wharton 115 kV breakers 'G943A' and 'G943B' with 40 kA breakers	JCPL (100%)
b3042	Replace substation conductor at Raritan River 230 kV substation on the Kilmer line terminal	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3130	Construct seven new 34.5 kV circuits on existing pole lines (total of 53.5 miles), rebuild/reconductor two 34.5 kV circuits (total of 5.5 miles) and install a second 115/34.5 kV transformer (Werner)		JCPL (100%)
b3130.1	Construct a new 34.5 kV circuit from Oceanview to Allenhurst 34.5 kV (4 miles)		JCPL (100%)
b3130.2	Construct a new 34.5 kV circuit from Atlantic to Red Bank 34.5 kV (12 miles)		JCPL (100%)
b3130.3	Construct a new 34.5 kV circuit from Freneau to Taylor Lane 34.5 kV (6.5 miles)		JCPL (100%)
b3130.4	Construct a new 34.5 kV circuit from Keyport to Belford 34.5 kV (6 miles)		JCPL (100%)
b3130.5	Construct a new 34.5 kV circuit from Red Bank to Belford 34.5 kV (5 miles)		JCPL (100%)
b3130.6	Construct a new 34.5 kV circuit from Werner to Clark Street (7 miles)		JCPL (100%)
b3130.7	Construct a new 34.5 kV circuit from Atlantic to Freneau (13 miles)		JCPL (100%)
b3130.8	Rebuild/reconductor the Atlantic – Camp Woods Switch Point (3.5 miles) 34.5 kV circuit		JCPL (100%)
b3130.9	Rebuild/reconductor the Allenhurst – Elberon (2 miles) 34.5 kV circuit		JCPL (100%)
b3130.10	Install 2nd 115/34.5 kV transformer at Werner substation		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3238	Replace seven (7) overdutied 34.5 kV breakers with 50 kA rated equipment at the Whippany substation		JCPL (100%)
b3239	Replace fourteen (14) overdutied 34.5 kV breakers with 63 kA rated equipment		JCPL (100%)

SCHEDULE 12 – APPENDIX A

(5) Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2006.1.1	Loop the 2026 (TMI – Hosensack 500 kV) line in to the Lauschtown	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: BGE (19.51%) / PPL (80.49%)
b2006.2.1	Upgrade relay at South Reading on the 1072 230 V line	PPL (100%)
b2006.4	Replace the South Reading 69 kV '81342' breaker with 40 kA breaker	ME (100%)
b2006.5	Replace the South Reading 69 kV '82842' breaker with 40 kA breaker	ME (100%)
b2452	Install 2nd Hunterstown 230/115 kV transformer	APS (8.30%) / BGE (14.70%) / DEOK (0.48%) / Dominion (36.92%) / ME (23.85%) / PEPCO (15.75%)

* Neptune Regional Transmission System, LLC

Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2452.1	Reconductor Hunterstown - Oxford 115 kV line		APS (8.30%) / BGE (14.70%) / DEOK (0.48%) / Dominion (36.92%) / ME (23.85%) / PEPCO (15.75%)
b2452.3	Replace the Hunterstown 115 kV breaker '96192' with 40 kA		ME (100%)
b2588	Install a 36.6 MVAR 115 kV capacitor at North Bangor substation		ME (100%)
b2637	Convert Middletown Junction 230 kV substation to nine bay double breaker configuration.		ME (100%)
b2644	Install a 28.8 MVAR 115 kV capacitor at the Mountain substation		ME (100%)
b2688.1	Lincoln Substation: Upgrade the bus conductor and replace CTs		AEP (12.91%) / APS (19.04%) / ATSI (1.24%) / ComEd (0.35%) / Dayton (1.45%) / DEOK (2.30%) / DL (1.11%) / Dominion (44.85%) / EKPC (0.78%) / PEPCO (15.85%) / RE (0.12%)
b2688.2	Germantown Substation: Replace 138/115 kV transformer with a 135/180/224 MVA bank. Replace Lincoln 115 kV breaker, install new 138 kV breaker, upgrade bus conductor and adjust/replace CTs		AEP (12.91%) / APS (19.04%) / ATSI (1.24%) / ComEd (0.35%) / Dayton (1.45%) / DEOK (2.30%) / DL (1.11%) / Dominion (44.85%) / EKPC (0.78%) / PEPCO (15.85%) / RE (0.12%)

Mid-Atlantic Interstate Transmission, LLC for the Metropolitan Edison Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2743.4	Upgrade terminal equipment at Hunterstown 500 kV on the Conemaugh – Hunterstown 500 kV circuit	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.4	Upgrade terminal equipment and required relay communication at TMI 500 kV: on the Beach Bottom – TMI 500 kV circuit	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2749	Replace relay at West Boyertown 69 kV station on the West Boyertown – North Boyertown 69 kV circuit	ME (100%)
b2765	Upgrade bus conductor at Gardners 115 kv substation; Upgrade bus conductor and adjust CT ratios at Carlisle Pike 115 kV	ME (100%)
b2950	Upgrade limiting 115 kV switches on the 115 kV side of the 230/115 kV Northwood substation and adjust setting on limiting ZR relay	ME (100%)
b3136	Replace bus conductor at Smith 115 kV substation	ME (100%)
b3145	Rebuild the Hunterstown – Lincoln 115 kV Line No. 962 (approx. 2.6 miles). Upgrade limiting terminal equipment at Hunterstown and Lincoln	AEP (16.60%) / APS (8.09%) / BGE (2.74%) / Dayton (2.00%) / DEOK (0.35%) / DL (1.31%) / Dominion (52.77%) / EKPC (1.54%) / OVEC (0.06%) / PEPCO (14.54%)
b3311	Install a 120.75 kV 79.4 MVAR capacitor bank at Yorkana 115 kV	ME (100%)

SCHEDULE 12 – APPENDIX A

(7) Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2212 Shawville Substation: Relocate 230 kV and 115 kV controls from the generating station building to new control building		PENELEC (100%)
b2293 Replace the Erie South 115 kV breaker 'Buffalo Rd' with 40 kA breaker		PENELEC (100%)
b2294 Replace the Johnstown 115 kV breaker 'Bon Aire' with 40 kA breaker		PENELEC (100%)
b2302 Replace the Erie South 115 kV breaker 'French #2' with 40 kA breaker		PENELEC (100%)
b2304 Replace the substation conductor and switch at South Troy 115 kV substation		PENELEC (100%)
b2371 Install 75 MVAR capacitor at the Erie East 230 kV substation		PENELEC (100%)
b2441 Install +250/-100 MVAR SVC at the Erie South 230 kV station		PENELEC (100%)
b2442 Install three 230 kV breakers on the 230 kV side of the Lewistown #1, #2 and #3 transformers		PENELEC (100%)
b2450 Construct a new 115 kV line from Central City West to Bedford North		PENELEC (100%)
b2463 Rebuild and reconductor 115 kV line from East Towanda to S. Troy and upgrade terminal equipment at East Towanda, Tennessee Gas and South Troy		PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2494 Construct Warren 230 kV ring bus and install a second Warren 230/115 kV transformer		PENELEC (100%)
b2552.1 Reconductor the North Meshoppen – Oxbow-Lackawanna 230 kV circuit and upgrade terminal equipment (MAIT portion)		PENELEC (95.95%) / PPL (4.05%)
b2573 Replace the Warren 115 kV 'B12' breaker with a 40 kA breaker		PENELEC (100%)
b2587 Reconfigure Pierce Brook 345 kV station to a ring bus and install a 125 MVAR shunt reactor at the station		PENELEC (100%)
b2621 Replace relays at East Towanda and East Sayre 115 kV substations (158/191 MVA SN/SE)		PENELEC (100%)
b2677 Replace wave trap, bus conductor and relay at Hilltop 115 kV substation. Replace relays at Prospect and Cooper substations		PENELEC (100%)
b2678 Convert the East Towanda 115 kV substation to breaker and half configuration		PENELEC (100%)
b2679 Install a 115 kV Venango Jct. line breaker at Edinboro South		PENELEC (100%)
b2680 Install a 115 kV breaker on Hooversville #1 115/23 kV transformer		PENELEC (100%)
b2681 Install a 115 kV breaker on the Eclipse #2 115/34.5 kV transformer		PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2682	Install two 21.6 MVAR capacitors at the Shade Gap 115 kV substation	PENELEC (100%)
b2683	Install a 36 MVAR 115 kV capacitor and associated equipment at Morgan Street substation	PENELEC (100%)
b2684	Install a 36 MVAR 115 kV capacitor at Central City West substation	PENELEC (100%)
b2685	Install a second 115 kV 3000A bus tie breaker at Hooversville substation	PENELEC (100%)
b2735	Replace the Warren 115 kV 'NO. 2 XFMR' breaker with 40 kA breaker	PENELEC (100%)
b2736	Replace the Warren 115 kV 'Warren #1' breaker with 40 kA breaker	PENELEC (100%)
b2737	Replace the Warren 115 kV 'A TX #1' breaker with 40 kA breaker	PENELEC (100%)
b2738	Replace the Warren 115 kV 'A TX #2' breaker with 40 kA breaker	PENELEC (100%)
b2739	Replace the Warren 115 kV 'Warren #2' breaker with 40 kA breaker	PENELEC (100%)
b2740	Revise the reclosing of the Hooversville 115 kV 'Ralphton' breaker	PENELEC (100%)
b2741	Revise the reclosing of the Hooversville 115 kV 'Statler Hill' breaker	PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2743.2	Tie in new Rice substation to Conemaugh – Hunterstown 500 kV	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2743.3	Upgrade terminal equipment at Conemaugh 500 kV on the Conemaugh – Hunterstown 500 kV circuit	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2748	Install two 28 MVAR capacitors at Tiffany 115 kV substation	PENELEC (100%)
b2767	Construct a new 345 kV breaker string with three (3) 345 kV breakers at Homer City and move the North autotransformer connection to this new breaker string	PENELEC (100%)
b2803	Reconductor 3.7 miles of the Bethlehem – Leretto 46 kV circuit and replace terminal equipment at Summit 46 kV	PENELEC (100%)
b2804	Install a new relay and replace 4/0 CU bus conductor at Huntingdon 46 kV station, on the Huntingdon – C tap 46 kV circuit	PENELEC (100%)
b2805	Install a new relay and replace 4/0 CU & 250 CU substation conductor at Hollidaysburg 46 kV station, on the Hollidaysburg – HCR Tap 46 kV circuit	PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2806	Install a new relay and replace meter at the Raystown 46 kV substation, on the Raystown – Smithfield 46 kV circuit	PENELEC (100%)
b2807	Replace the CHPV and CRS relay, and adjust the IAC overcurrent relay trip setting; or replace the relay at Eldorado 46 kV substation, on the Eldorado – Gallitzin 46 kV circuit	PENELEC (100%)
b2808	Adjust the JBC overcurrent relay trip setting at Raystown 46 kV, and replace relay and 4/0 CU bus conductor at Huntingdon 46 kV substations, on the Raystown – Huntingdon 46 kV circuit	PENELEC (100%)
b2865	Replace Seward 115 kV breaker "Jackson Road" with 63 kA breaker	PENELEC (100%)
b2866	Replace Seward 115 kV breaker "Conemaugh N." with 63 kA breaker	PENELEC (100%)
b2867	Replace Seward 115 kV breaker "Conemaugh S." with 63 kA breaker	PENELEC (100%)
b2868	Replace Seward 115 kV breaker "No.8 Xfmr" with 63 kA breaker	PENELEC (100%)
b2944	Install two 345 kV 80 MVAR shunt reactors at Mainesburg station	PENELEC (100%)

**Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2951	Seward, Blairsville East, Shelocta work	PENELEC (100%)
b2951.1	Upgrade Florence 115 kV line terminal equipment at Seward SS	PENELEC (100%)
b2951.2	Replace Blairsville East / Seward 115 kV line tuner, coax, line relaying and carrier set at Shelocta SS	PENELEC (100%)
b2951.3	Replace Seward / Shelocta 115 kV line CVT, tuner, coax, and line relaying at Blairsville East SS	PENELEC (100%)
b2952	Replace the North Meshoppen #3 230/115 kV transformer eliminating the old reactor and installing two breakers to complete a 230 kV ring bus at North Meshoppen	PENELEC (100%)
b2953	Replace the Keystone 500 kV breaker "NO. 14 Cabot" with 50 kA breaker	PENELEC (100%)
b2954	Replace the Keystone 500 kV breaker "NO. 16 Cabot" with 50 kA breaker	PENELEC (100%)
b2984	Reconfigure the bus at Glory and install a 50.4 MVAR 115 kV capacitor	PENELEC (100%)
b3007.2	Reconductor the Blairsville East to Social Hall 138 kV line and upgrade terminal equipment - PENELEC portion. 4.8 miles total. The new conductor will be 636 ACSS replacing the existing 636 ACSR conductor. At Blairsville East, the wave trap and breaker disconnects will be replaced	PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3008 Upgrade Blairsville East 138/115 kV transformer terminals. This project is an upgrade to the tap of the Seward – Shelocta 115 kV line into Blairsville substation. The project will replace the circuit breaker and adjust relay settings		PENELEC (100%)
b3009 Upgrade Blairsville East 115 kV terminal equipment. Replace 115 kV circuit breaker and disconnects		PENELEC (100%)
b3014 Replace the existing Shelocta 230/115 kV transformer and construct a 230 kV ring bus		PENELEC (100%)
b3016 Upgrade terminal equipment at Corry East 115 kV to increase rating of Four Mile to Corry East 115 kV line. Replace bus conductor		PENELEC (100%)
b3017.1 Rebuild Glade to Warren 230 kV line with hi-temp conductor and substation terminal upgrades. 11.53 miles. New conductor will be 1033 ACSS. Existing conductor is 1033 ACSR		PENELEC (100%)
b3017.2 Glade substation terminal upgrades. Replace bus conductor, wave traps, and relaying		PENELEC (100%)
b3017.3 Warren substation terminal upgrades. Replace bus conductor, wave traps, and relaying		PENELEC (100%)
b3022 Replace Saxton 115 kV breaker ‘BUS TIE’ with a 40 kA breaker		PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3024 Upgrade terminal equipment at Corry East 115 kV to increase rating of Warren to Corry East 115 kV line. Replace bus conductor		PENELEC (100%)
b3043 Install one 115 kV 36 MVAR capacitor at West Fall 115 kV substation		PENELEC (100%)
b3073 Replace the Blairsville East 138/115 kV transformer and associated equipment such as breaker disconnects and bus conductor		PENELEC (100%)
b3077 Reconductor the Franklin Pike B – Wayne 115 kV line (6.78 miles)		PENELEC (100%)
b3078 Reconductor the 138 kV bus and replace the line trap, relays Morgan Street. Reconductor the 138 kV bus at Venango Junction		PENELEC (100%)
b3082 Construct 4-breaker 115 kV ring bus at Geneva		PENELEC (100%)
b3137 Rebuild 20 miles of the East Towanda – North Meshoppen 115 kV line		PENELEC (100%)
b3144 Upgrade bus conductor and relay panels of the Jackson Road – Nanty Glo 46 kV SJN line		PENELEC (100%)
b3144.1 Upgrade line relaying and substation conductor on the 46 kV Nanty Glo line exit at Jackson Road substation		PENELEC (100%)
b3144.2 Upgrade line relaying and substation conductor on the 46 kV Jackson Road line exit at Nanty Glo substation		PENELEC (100%)
b3154 Install one (1) 13.2 MVAR 46 kV capacitor at the Logan substation		PENELEC (100%)

Mid-Atlantic Interstate Transmission, LLC for the Pennsylvania Electric Company Zone (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3231	Replace the existing No. 2 cap bank breaker at Huntingdon substation with a new breaker with higher interrupting capability	PENELEC (100%)
b3232	Replace the existing Williamsburg, ALH (Hollidaysburg) and bus section breaker at the Altoona substation with a new breaker with higher interrupting capability	PENELEC (100%)
b3233	Install one (1) 34 MVAR 115 kV shunt reactor and breaker. Install one (1) 115 kV circuit breaker to expand the substation to a 4-breaker ring bus	PENELEC (100%)
b3237	Install two (2) 46 kV 6.12 MVAR capacitors effective at Mt. Union	PENELEC (100%)
b3245	Construct a new breaker-and-a-half substation near Tiffany substation. All transmission assets and lines will be relocated to the new substation. The two (2) distribution transformers will be fed via two (2) dedicated 115 kV feeds to the existing Tiffany substation	PENELEC (100%)
b3306	Install a second 125 MVAR 345 kV shunt reactor and associated equipment at Pierce Brook substation. Install a 345 kV breaker on the high side of the 345/230 kV transformer #1	PENELEC (100%)

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(8) PECO Energy Company

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2130	Replace Waneeta 138 kV breaker '15' with 63 kA rated breaker		PECO (100%)
b2131	Replace Waneeta 138 kV breaker '35' with 63 kA rated breaker		PECO (100%)
b2132	Replace Waneeta 138 kV breaker '875' with 63 kA rated breaker		PECO (100%)
b2133	Replace Waneeta 138 kV breaker '895' with 63 kA rated breaker		PECO (100%)
b2134	Plymouth Meeting 230 kV breaker '115' with 63 kA rated breaker		PECO (100%)
b2222	Install a second Eddystone 230/138 kV transformer		PECO (100%)
b2222.1	Replace the Eddystone 138 kV #205 breaker with 63 kA breaker		PECO (100%)
b2222.2	Increase Rating of Eddystone #415 138 kV Breaker		PECO (100%)
b2236	50 MVAR reactor at Buckingham 230 kV		PECO (100%)
b2527	Replace Whitpain 230 kV breaker '155' with 80 kA breaker		PECO (100%)
b2528	Replace Whitpain 230 kV breaker '525' with 80 kA breaker		PECO (100%)
b2529	Replace Whitpain 230 kV breaker '175' with 80 kA breaker		PECO (100%)
b2549	Replace terminal equipment inside Chichester substation on the 220-36 (Chichester – Eddystone) 230 kV line		PECO (100%)

PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2550	Replace terminal equipment inside Nottingham substation on the 220-05 (Nottingham – Daleville- Bradford) 230 kV line		PECO (100%)
b2551	Replace terminal equipment inside Llanerch substation on the 130-45 (Eddystone to Llanerch) 138 kV line		PECO (100%)
b2572	Replace the Peach Bottom 500 kV ‘#225’ breaker with a 63 kA breaker		PECO (100%)
b2694	Increase ratings of Peach Bottom 500/230 kV transformer to 1479 MVA normal/1839 MVA emergency		AEC (3.97%)/ AEP (5.77%)/ APS (4.27%)/ ATSI (6.15%)/ BGE (1.63%)/ ComEd (0.72%)/ Dayton (1.06%)/ DEOK (1.97%)/ DL (2.25%)/ Dominion (0.35%)/ DPL (14.29%)/ ECP** (0.69%)/ EKPC (0.39%)/ HTP*** (0.96%)/ JCPL (6.84%) MetEd (3.28%)/ NEPTUNE* (2.14%)/ PECO (16.42%)/ PENELEC (3.94%)/ PPL (8.32%)/ PSEG (14.13%)/ RE (0.44%)
b2752.2	Tie in new Furnace Run substation to Peach Bottom – TMI 500 kV		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2752.3	Upgrade terminal equipment and required relay communication at Peach Bottom 500 kV: on the Beach Bottom – TMI 500 kV circuit		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)

*Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2766.2	Upgrade substation equipment at Peach Bottom 500 kV to increase facility rating to 2826 MVA normal and 3525 MVA emergency	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (0.72%) / APS (11.06%) / ATSI (1.43%) / BGE (34.25%) / DPL (1.83%) / PECO (1.80%) / PEPCO (35.49%) / PSEG (12.92%) / RE (0.50%)</p>

*Neptune Regional Transmission System, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2774 Reconnector the Emilie - Falls 138 kV line, and replace station cable and relay		PECO (100%)
b2775 Reconnector the Falls - U.S. Steel 138 kV line		PECO (100%)
b2850 Replace the Waneeta 230 kV "285" with 63 kA breaker		PECO (100%)
b2852 Replace the Chichester 230 kV "195" with 63 kA breaker		PECO (100%)
b2854 Replace the North Philadelphia 230 kV "CS 775" with 63 kA breaker		PECO (100%)
b2855 Replace the North Philadelphia 230 kV "CS 885" with 63 kA breaker		PECO (100%)
b2856 Replace the Parrish 230 kV "CS 715" with 63 kA breaker		PECO (100%)
b2857 Replace the Parrish 230 kV "CS 825" with 63 kA breaker		PECO (100%)
b2858 Replace the Parrish 230 kV "CS 935" with 63 kA breaker		PECO (100%)
b2859 Replace the Plymouth Meeting 230 kV "215" with 63 kA breaker		PECO (100%)
b2860 Replace the Plymouth Meeting 230 kV "235" with 63 kA breaker		PECO (100%)
b2861 Replace the Plymouth Meeting 230 kV "325" with 63 kA breaker		PECO (100%)
b2862 Replace the Grays Ferry 230 kV "705" with 63 kA breaker		PECO (100%)

PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2863	Replace the Grays Ferry 230 kV "985" with 63 kA breaker		PECO (100%)
b2864	Replace the Grays Ferry 230 kV "775" with 63 kA breaker		PECO (100%)
b2923	Replace the China Tap 230 kV 'CS 15' breaker with a 63 kA breaker		PECO (100%)
b2924	Replace the Emilie 230 kV 'CS 15' breaker with 63 kA breaker		PECO (100%)
b2925	Replace the Emilie 230 kV 'CS 25' breaker with 63 kA breaker		PECO (100%)
b2926	Replace the Chichester 230 kV '215' breaker with 63 kA breaker		PECO (100%)
b2927	Replace the Plymouth Meeting 230 kV '125' breaker with 63 kA breaker		PECO (100%)
b2985	Replace the 230 kV CB #225 at Linwood Substation (PECO) with a double circuit breaker (back to back circuit breakers in one device)		PECO (100%)
b3041	Peach Bottom – Furnace Run 500 kV terminal equipment		PECO (100%)
b3120	Replace the Whitpain 230 kV breaker "125" with a 63 kA breaker		PECO (100%)
b3138	Move 2 MVA load from the Roxborough to Bala substation. Adjust the tap setting on the Master 138/69 kV transformer #2		PECO (100%)
b3146	Upgrade the Richmond 69 kV breaker "140" with 40 kA breaker		PECO (100%)

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(9) PPL Electric Utilities Corporation

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1813.12	Replace the Blooming Grove 230 kV breaker 'Peckville'		PPL (100%)
b2223	Rebuild and reconductor 2.6 miles of the Sunbury - Dauphin 69 kV circuit		PPL (100%)
b2224	Add a 2nd 150 MVA 230/69 kV transformer at Springfield		PPL (100%)
b2237	150 MVAR shunt reactor at Alburtis 500 kV		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: PPL (100%)
b2238	100 MVAR shunt reactor at Elimsport 230 kV		PPL (100%)

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2269 Rebuild approximately 23.7 miles of the Susquehanna - Jenkins 230 kV circuit. This replaces a temporary SPS that is already planned to mitigate the violation until this solution is implemented		PPL (100%)
b2282 Rebuild the Siegfried-Frackville 230 kV line		PPL (100%)
b2406.1 Rebuild Stanton-Providence 69 kV 2&3 9.5 miles with 795 SCSR		PPL (100%)
b2406.2 Reconnector 7 miles of the Lackawanna - Providence 69 kV #1 and #2 with 795 ACSR		PPL (100%)
b2406.3 Rebuild SUB2 Tap 1 (Lackawanna - Scranton 1) 69 kV 1.5 miles 556 ACSR		PPL (100%)
b2406.4 Rebuild SUB2 Tap 2 (Lackawanna - Scranton 1) 69 kV 1.6 miles 556 ACSR		PPL (100%)
b2406.5 Create Providence - Scranton 69 kV #1 and #2, 3.5 miles with 795 ACSR		PPL (100%)
b2406.6 Rebuild Providence 69 kV switchyard		PPL (100%)
b2406.7 Install 2 - 10.8 MVAR capacitors at EYNO 69 kV		PPL (100%)
b2406.8 Rebuild Stanton 230 kV yard		PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2446	Replace wave trap and protective relays at Montour	PPL (100%)
b2447	Replace wave trap and protective relays at Montour	PPL (100%)
b2448	Install a 2nd Sunbury 900 MVA 500-230kV transformer and associated equipment	PPL (100%)
b2552.2	Reconductor the North Meshoppen - Oxbow – Lackawanna 230 kV circuit and upgrade terminal equipment (PPL portion)	PENELEC (95.62%) / PPL (4.38%)
b2574	Replace the Sunbury 230 kV ‘MONTOUR NORT’ breaker with a 63 kA breaker	PPL (100%)
b2690	Reconductor two spans of the Graceton – Safe Harbor 230 kV transmission line. Includes termination point upgrades	PPL (100%)
b2691	Reconductor three spans limiting Brunner Island – Yorkana 230 kV line, add 2 breakers to Brunner Island switchyard, upgrade associated terminal equipment	PPL (100%)

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2716	Add a 200 MVAR shunt reactor at Lackawanna 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: PPL (100%)</p>
b2754.1	Install 7 miles of optical ground wire (OPGW) between Gilbert and Springfield 230 kV substations	PPL (100%)
b2754.4	Use ~ 40 route miles of existing fibers on PPL 230 kV system to establish direct fiber circuits	PPL (100%)
b2754.5	Upgrade relaying at Martins Creek 230 kV	PPL (100%)
b2756	Install 2% reactors at Martins Creek 230 kV	PPL (100%)
b2813	Expand existing Lycoming 69 kV yard to double bus double breaker arrangement	PPL (100%)

* Neptune Regional Transmission System, LLC

PPL Electric Utilities Corporation (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2824	Reconfigure/Expand the Lackawanna 500 kV substation by adding a third bay with three breakers	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: PPL (100%)</p>
b2838	Build a new 230/69 kV substation by tapping the Montour – Susquehanna 230 kV double circuits and Berwick – Hunlock & Berwick – Colombia 69 kV circuits	PPL (100%)
b2979	Replace Martins Creek 230 kV circuit breakers with 80 kA rating	PPL (100%)
b3221	Replace terminal equipment (bus conductor) on the 230 kV side of the Steel City 500/230 kV Transformer #1	PPL (100%)
b3222	Install one (1) 7.2 MVAR fixed cap bank on the Lock Haven – Reno 69 kV line and one (1) 7.2 MVAR fixed cap bank on the Lock Haven – Flemington 69 kV line near the Flemington 69/12 kV substation	PPL (100%)

* Neptune Regional Transmission System, LLC

SCHEDULE 12 – APPENDIX A

(12) Public Service Electric and Gas Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2218 Rebuild 4 miles of overhead line from Edison - Meadow Rd - Metuchen (Q 1317)		PSEG (100%)
b2239 50 MVAR reactor at Saddlebrook 230 kV		PSEG (100%)
b2240 50 MVAR reactor at Athenia 230 kV		PSEG (100%)
b2241 50 MVAR reactor at Bergen 230 kV		PSEG (100%)
b2242 50 MVAR reactor at Hudson 230 kV		PSEG (100%)
b2243 Two 50 MVAR reactors at Stanley Terrace 230 kV		PSEG (100%)
b2244 50 MVAR reactor at West Orange 230 kV		PSEG (100%)
b2245 50 MVAR reactor at Aldene 230 kV		PSEG (100%)
b2246 150 MVAR reactor at Camden 230 kV		PSEG (100%)
b2247 150 MVAR reactor at Gloucester 230 kV		PSEG (100%)
b2248 50 MVAR reactor at Clarksville 230 kV		PSEG (100%)
b2249 50 MVAR reactor at Hinchmans 230 kV		PSEG (100%)
b2250 50 MVAR reactor at Beaverbrook 230 kV		PSEG (100%)
b2251 50 MVAR reactor at Cox's Corner 230 kV		PSEG (100%)

The Annual Revenue Requirement for all Public Service Electric and Gas Company Projects (Required Transmission Enhancements) in this Section 12 shall be as specified in Attachment 7 of Attachment H-10A and under the procedures detailed in Attachment H-10B.

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2276	Eliminate the Sewaren 138 kV bus by installing a new 230 kV bay at Sewaren 230 kV	PSEG (100%)
b2276.1	Convert the two 138 kV circuits from Sewaren – Metuchen to 230 kV circuits including Lafayette and Woodbridge substation	PSEG (100%)
b2276.2	Reconfigure the Metuchen 230 kV station to accommodate the two converted circuits	PSEG (100%)
b2290	Replace disconnect switches at Kilmer, Lake Nilson and Greenbrook 230 kV substations on the Raritan River - Middlesex (I-1023) circuit	PSEG (100%)
b2291	Replace circuit switcher at Lake Nelson 230 kV substation on the Raritan River - Middlesex (W-1037) circuit	PSEG (100%)
b2295	Replace the Salem 500 kV breaker 10X with 63 kA breaker	PSEG (100%)
b2421	Install all 69 kV lines to interconnect Plainfield, Greenbrook, and Bridgewater stations and establish the 69 kV network	PSEG (100%)
b2421.1	Install two 18 MVAR capacitors at Plainfield and S. Second St substation	PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2421.2	Install a second four (4) breaker 69 kV ring bus at Bridgewater Switching Station	PSEG (100%)
b2436.10	Convert the Bergen – Marion 138 kV path to double circuit 345 kV and associated substation upgrades	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (100%)
b2436.21	Convert the Marion - Bayonne "L" 138 kV circuit to 345 kV and any associated substation upgrades	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: PSEG (100%)

*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2436.22	Convert the Marion - Bayonne "C" 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: PSEG (96.26%) / RE (3.74%)</p>
b2436.33	Construct a new Bayway – Bayonne 345 kV circuit and any associated substation upgrades	PSEG (96.26%) / RE (3.74%)
b2436.34	Construct a new North Ave – Bayonne 345 kV circuit and any associated substation upgrades	PSEG (96.26%) / RE (3.74%)

*Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2436.50	Construct a new North Ave - Airport 345 kV circuit and any associated substation upgrades		PSEG (100%)
b2436.60	Relocate the underground portion of North Ave - Linden "T" 138 kV circuit to Bayway, convert it to 345 kV, and any associated substation upgrades		PSEG (96.26%) / RE (3.74%)
b2436.70	Construct a new Airport - Bayway 345 kV circuit and any associated substation upgrades		PSEG (100%)
b2436.81	Relocate the overhead portion of Linden - North Ave "T" 138 kV circuit to Bayway, convert it to 345 kV, and any associated substation upgrades		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: PSEG (96.26%) / RE (3.74%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2436.83	Convert the Bayway - Linden "Z" 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: PSEG (96.26%) / RE (3.74%)</p>
b2436.84	Convert the Bayway – Linden “W” 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: PSEG (96.26%) / RE (3.74%)</p>

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2436.85	Convert the Bayway – Linden “M” 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: PSEG (96.26%) / RE (3.74%)</p>
b2436.90	Relocate Farragut - Hudson "B" and "C" 345 kV circuits to Marion 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: PSEG (100%)</p>
b2436.91	Relocate the Hudson 2 generation to inject into the 345 kV at Marion and any associated upgrades	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2437.10	New Bergen 345/230 kV transformer and any associated substation upgrades	PSEG (100%)
b2437.11	New Bergen 345/138 kV transformer #1 and any associated substation upgrades	PSEG (100%)
b2437.20	New Bayway 345/138 kV transformer #1 and any associated substation upgrades	PSEG (100%)
b2437.21	New Bayway 345/138 kV transformer #2 and any associated substation upgrades	PSEG (100%)
b2437.30	New Linden 345/230 kV transformer and any associated substation upgrades	PSEG (96.26%) / RE (3.74%)
b2437.33	New Bayonne 345/69 kV transformer and any associated substation upgrades	PSEG (100%)
b2438	Install two reactors at Tosco 230 kV	PSEG (100%)
b2439	Replace the Tosco 138 kV breaker 'CB1/2 (CBT)' with 63 kA	PSEG (100%)
b2474	Rebuild Athenia 138 kV to 80 kA	PSEG (100%)
b2589	Install a 100 MVAR 230 kV shunt reactor at Mercer station	PSEG (100%)
b2590	Install two 75 MVAR 230 kV capacitors at Sewaren station	PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.3	Install an SVC at New Freedom 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>
b2633.4	Add a new 500 kV bay at Hope Creek (Expansion of Hope Creek substation)	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEC (8.01%) / BGE (1.94%) / DPL (12.99%) / JCPL (13.85%) / ME (5.88%) / NEPTUNE* (3.45%) / PECO (17.62%) / PPL (14.85%) / PSEG (20.79%) / RE (0.62%)</p>

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.5	Add a new 500/230 kV autotransformer at Hope Creek and a new Hope Creek 230 kV substation	AEC (8.01%) / BGE (1.94%) / DPL (12.99%) / JCPL (13.85%) / ME (5.88%) / NEPTUNE* (3.45%) / PECO (17.62%) / PPL (14.85%) / PSEG (20.79%) / RE (0.62%)
b2633.8	Implement high speed relaying utilizing OPGW on Salem – Orchard 500 kV, Hope Creek – New Freedom 500 kV, New Freedom - Salem 500 kV, Hope Creek – Salem 500 kV, and New Freedom – Orchard 500 kV lines	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2633.91	Implement changes to the tap settings for the two Salem units' step up transformers	AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)
b2633.92	Implement changes to the tap settings for the Hope Creek unit's step up transformers	AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)
b2702	Install a 350 MVAR reactor at Roseland 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: PSEG (100%)
b2703	Install a 100 MVAR reactor at Bergen 230 kV	PSEG (100%)
b2704	Install a 150 MVAR reactor at Essex 230 kV	PSEG (100%)
b2705	Install a 200 MVAR reactor (variable) at Bergen 345 kV	PSEG (100%)
b2706	Install a 200 MVAR reactor (variable) at Bayway 345 kV	PSEG (100%)
b2707	Install a 100 MVAR reactor at Bayonne 345 kV	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2712	Replace the Bergen 138 kV '40P' breaker with 80 kA breaker		PSEG (100%)
b2713	Replace the Bergen 138 kV '90P' breaker with 80 kA breaker		PSEG (100%)
b2722	Reconductor the 1 mile Bergen – Bergen GT 138 kV circuit (B-1302)		PSEG (100%)
b2755	Build a third 345 kV source into Newark Airport		PSEG (100%)
b2810.1	Install second 230/69 kV transformer at Cedar Grove		PSEG (100%)
b2810.2	Build a new 69 kV circuit from Cedar Grove to Great Notch		PSEG (100%)
b2811	Build 69 kV circuit from Locust Street to Delair		PSEG (100%)
b2812	Construct River Road to Tonnelle Avenue 69kV Circuit		PSEG (100%)
b2825.1	Install 2X50 MVAR shunt reactors at Kearny 230 kV substation		PSEG (100%)
b2825.2	Increase the size of the Hudson 230 kV, 2X50 MVAR shunt reactors to 2X100 MVAR		PSEG (100%)
b2825.3	Install 2X100 MVAR shunt reactors at Bayway 345 kV substation		PSEG (100%)
b2825.4	Install 2X100 MVAR shunt reactors at Linden 345 kV substation		PSEG (100%)
b2835	Convert the R-1318 and Q1317 (Edison – Metuchen) 138 kV circuits to one 230 kV circuit		See sub-IDs for cost allocations

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2835.1	Convert the R-1318 and Q-1317 (Edison – Metuchen) 138 kV circuits to one 230 kV circuit (Brunswick – Meadow Road)	AEC (30.19%) / PECO (69.81%)
b2835.2	Convert the R-1318 and Q-1317 (Edison - Metuchen) 138 kV circuits to one 230 kV circuit (Meadow Road - Pierson Ave)	AEC (30.21%) / PECO (69.79%)
b2835.3	Convert the R-1318 and Q-1317 (Edison - Metuchen) 138 kV circuits to one 230 kV circuit (Pierson Ave - Metuchen)	AEC (30.21%) / PECO (69.79%)
b2836	Convert the N-1340 and T-1372/D-1330 (Brunswick – Trenton) 138 kV circuits to 230 kV circuits	See sub-IDs for cost allocations
b2836.1	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Brunswick - Hunterglen)	AEC (100%)
b2836.2	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Hunterglen - Trenton)	AEC (49.19%) / NEPTUNE* (50.81%)
b2836.3	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Brunswick - Devils Brook)	PSEG (100%)
b2836.4	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Devils Brook - Trenton)	PSEG (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2837	Convert the F-1358/Z-1326 and K1363/Y-1325 (Trenton – Burlington) 138 kV circuits to 230 kV circuits	See sub-IDs for cost allocations
b2837.1	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Trenton - Yardville K)	NEPTUNE* (100%)
b2837.2	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Yardville - Ward Ave K)	NEPTUNE* (8.89%) / PSEG (87.70%) / RE (3.41%)
b2837.3	Convert the N-1340 and T-1372/D-1330 (Brunswick - Trenton) 138 kV circuits to 230 kV circuits (Brunswick - Devils Brook)	NEPTUNE* (8.27%) / PSEG (88.30%) / RE (3.43%)
b2837.4	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Crosswicks - Bustleton Y)	NEPTUNE* (6.79%) / PSEG (89.73%) / RE (3.48%)
b2837.5	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Bustleton - Burlington Y)	NEPTUNE* (5.62%) / PSEG (90.85%) / RE (3.53%)
b2837.6	Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Trenton - Yardville F)	NEPTUNE* (100%)

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Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2837.7 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Yardville - Ward Ave F)		NEPTUNE* (100%)
b2837.8 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Ward Ave - Crosswicks Z)		NEPTUNE* (100%)
b2837.9 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Crosswicks - Williams Z)		NEPTUNE* (8.22%) / PSEG (88.35%) / RE (3.43%)
b2837.10 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Williams - Bustleton Z)		NEPTUNE* (6.71%) / PSEG (89.80%) / RE (3.49%)
b2837.11 Convert the F-1358/Z-1326 and K-1363/Y-1325 (Trenton - Burlington) 138 kV circuits to 230 kV circuits (Bustleton - Burlington Z)		NEPTUNE* (5.20%) / PSEG (91.26%) / RE (3.54%)
b2870 Build new 138/26 kV Newark GIS station in a building (layout #1A) located adjacent to the existing Newark Switch and demolish the existing Newark Switch		PSEG (100%)
b2933 Third Source for Springfield Rd. and Stanley Terrace Stations		See sub-IDs for cost allocations

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2933.1	Construct a 230/69 kV station at Springfield	PSEG (100%)
b2933.2	Construct a 230/69 kV station at Stanley Terrace	PSEG (100%)
b2933.31	Construct a 69 kV network between Front Street, Springfield and Stanley Terrace (Front Street - Springfield)	NEPTUNE* (100%)
b2933.32	Construct a 69 kV network between Front Street, Springfield and Stanley Terrace (Springfield – Stanley Terrace)	PSEG (100%)
b2934	Build a new 69 kV line between Hasbrouck Heights and Carlstadt	PSEG (100%)
b2935	Third Supply for Runnemede 69 kV and Woodbury 69 kV	PSEG (100%)
b2935.1	Build a new 230/69 kV switching substation at Hilltop utilizing the PSE&G property and the K-2237 230 kV line	PSEG (100%)
b2935.2	Build a new line between Hilltop and Woodbury 69 kV providing the 3rd supply	PSEG (100%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2935.3	Convert Runnemede's straight bus to a ring bus and construct a 69 kV line from Hilltop to Runnemede 69 kV	PSEG (100%)
b2955	Wreck and rebuild the VFT – Warinanco – Aldene 230 kV circuit with paired conductor	JCPL (91.73%) / NEPTUNE* (8.27%)
b2956	Replace existing cable on Cedar Grove - Jackson Rd. with 5000 kcmil XLPE cable	PSEG (100%)
b2982	Construct a 230/69 kV station at Hillsdale Substation and tie to Paramus and Dumont at 69 kV	PSEG (100%)
b2982.1	Install a 69 kV ring bus and one (1) 230/69 kV transformer at Hillsdale	PSEG (100%)
b2982.2	Construct a 69 kV network between Paramus, Dumont, and Hillsdale Substation using existing 69 kV circuits	PSEG (100%)
b2983	Convert Kuller Road to a 69/13 kV station	PSEG (100%)
b2983.1	Install 69 kV ring bus and two (2) 69/13 kV transformers at Kuller Road	PSEG (100%)
b2983.2	Construct a 69 kV network between Kuller Road, Passaic, Paterson, and Harvey (new Clifton area switching station)	PSEG (100%)
b2986	Replace the existing Roseland – Branchburg – Pleasant Valley 230 kV corridor with new structures	See sub-IDs for cost allocations

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2986.11	Roseland-Branchburg 230 kV corridor rebuild (Roseland - Readington)	PSEG (100%)
b2986.12	Roseland-Branchburg 230 kV corridor rebuild (Readington - Branchburg)	JCPL (100%)
b2986.21	Branchburg-Pleasant Valley 230 kV corridor rebuild (Branchburg - East Flemington)	PECO (100%)
b2986.22	Branchburg-Pleasant Valley 230 kV corridor rebuild (East Flemington - Pleasant Valley)	NEPTUNE* (0.77%) / PECO (99.23%)
b2986.23	Branchburg-Pleasant Valley 230 kV corridor rebuild (Pleasant Valley - Rocktown)	JCPL (31.39%) / NEPTUNE* (5.26%) / PECO (6.68%) / PSEG (54.43%) / RE (2.23%)
b2986.24	Branchburg-Pleasant Valley 230 kV corridor rebuild (the PSEG portion of Rocktown - Buckingham)	JCPL (37.95%) / NEPTUNE* (4.70%) / PECO (5.38%) / PSEG (49.92%) / RE (2.05%)
b3003	Construct a 230/69 kV station at Maywood	PSEG (100%)
b3003.1	Purchase properties at Maywood to accommodate new construction	PSEG (100%)
b3003.2	Extend Maywood 230 kV bus and install one (1) 230 kV breaker	PSEG (100%)
b3003.3	Install one (1) 230/69 kV transformer at Maywood	PSEG (100%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3003.4	Install Maywood 69 kV ring bus		PSEG (100%)
b3003.5	Construct a 69 kV network between Spring Valley Road, Hasbrouck Heights, and Maywood		PSEG (100%)
b3004	Construct a 230/69/13 kV station by tapping the Mercer – Kuser Rd 230 kV circuit		PSEG (100%)
b3004.1	Install a new Clinton 230 kV ring bus with one (1) 230/69 kV transformer Mercer - Kuser Rd 230 kV circuit		PSEG (100%)
b3004.2	Expand existing 69 kV ring bus at Clinton Ave with two (2) additional 69 kV breakers		PSEG (100%)
b3004.3	Install two (2) 69/13 kV transformers at Clinton Ave		PSEG (100%)
b3004.4	Install 18 MVAR capacitor bank at Clinton Ave 69 kV		PSEG (100%)
b3025	Construct two (2) new 69/13 kV stations in the Doremus area and relocate the Doremus load to the new stations		PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3025.1	Install a new 69/13 kV station (Vauxhall) with a ring bus configuration	PSEG (100%)
b3025.2	Install a new 69/13 kV station (19th Ave) with a ring bus configuration	PSEG (100%)
b3025.3	Construct a 69 kV network between Stanley Terrace, Springfield Road, McCarter, Federal Square, and the two new stations (Vauxhall & 19th Ave)	PSEG (100%)

SCHEDULE 12 – APPENDIX A

(14) Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2117 Reconductor 0.33 miles of the Parkersburg - Belpre line and upgrade Parkersburg terminal equipment		APS (100%)
b2118 Add 44 MVAR Cap at New Martinsville		APS (100%)
b2120 Six-Wire Lake Lynn - Lardin 138 kV circuits		APS (100%)
b2142 Replace Weirton 138 kV breaker “Wylie Ridge 210” with 63 kA breaker		APS (100%)
b2143 Replace Weirton 138 kV breaker “Wylie Ridge 216” with 63 kA breaker		APS (100%)
b2174.8 Replace relays at Mitchell substation		APS (100%)
b2174.9 Replace primary relay at Piney Fork substation		APS (100%)
b2174.10 Perform relay setting changes at Bethel Park substation		APS (100%)
b2213 Armstrong Substation: Relocate 138 kV controls from the generating station building to new control building		APS (100%)
b2214 Albright Substation: Install a new control building in the switchyard and relocate controls and SCADA equipment from the generating station building the new control center		APS (100%)
b2215 Rivesville Switching Station: Relocate controls and SCADA equipment from the generating station building to new control building		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2216 Willow Island: Install a new 138 kV cross bus at Belmont Substation and reconnect and reconfigure the 138 kV lines to facilitate removal of the equipment at Willow Island switching station		APS (100%)
b2235 130 MVAR reactor at Monocacy 230 kV		APS (100%)
b2260 Install a 32.4 MVAR capacitor at Bartonville		APS (100%)
b2261 Install a 33 MVAR capacitor at Damascus		APS (100%)
b2267 Replace 1000 Cu substation conductor and 1200 amp wave trap at Marlowe		APS (100%)
b2268 Reconductor 6.8 miles of 138 kV 336 ACSR with 336 ACSS from Double Toll Gate to Riverton		APS (100%)
b2299 Reconductor from Collins Ferry - West Run 138 kV with 556 ACSS		APS (100%)
b2300 Reconductor from Lake Lynn - West Run 138 kV		APS (100%)
b2341 Install 39.6 MVAR Capacitor at Shaffers Corner 138 kV Substation		APS (100%)
b2342 Construct a new 138 kV switching station (Shuman Hill substation), which is next the Mobley 138 kV substation and install a 31.7 MVAR capacitor		APS (100%)
b2343 Install a 31.7 MVAR capacitor at West Union 138 kV substation		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2362	Install a 250 MVAR SVC at Squab Hollow 230 kV		APS (100%)
b2362.1	Install a 230 kV breaker at Squab Hollow 230 kV substation		APS (100%)
b2363	Convert the Shingletown 230 kV bus into a 6 breaker ring bus		APS (100%)
b2364	Install a new 230/138 kV transformer at Squab Hollow 230 kV substation. Loop the Forest - Elko 230 kV line into Squab Hollow. Loop the Brookville - Elko 138 kV line into Squab Hollow		APS (100%)
b2412	Install a 44 MVAR 138 kV capacitor at the Hempfield 138 kV substation		APS (100%)
b2433.1	Install breaker and a half 138 kV substation (Waldo Run) with 4 breakers to accommodate service to MarkWest Sherwood Facility including metering which is cut into Glen Falls Lamberton 138 kV line		APS (100%)
b2433.2	Install a 70 MVAR SVC at the new WaldoRun 138 kV substation		APS (100%)
b2433.3	Install two 31.7 MVAR capacitors at the new WaldoRun 138 kV substation		APS (100%)
b2424	Replace the Weirton 138 kV breaker 'WYLIE RID210' with 63 kA breakers		APS (100%)
b2425	Replace the Weirton 138 kV breaker 'WYLIE RID216' with 63 kA breakers		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2426	Replace the Oak Grove 138 kV breaker 'OG1' with 63 kA breakers	APS (100%)
b2427	Replace the Oak Grove 138 kV breaker 'OG2' with 63 kA breakers	APS (100%)
b2428	Replace the Oak Grove 138 kV breaker 'OG3' with 63 kA breakers	APS (100%)
b2429	Replace the Oak Grove 138 kV breaker 'OG4' with 63 kA breakers	APS (100%)
b2430	Replace the Oak Grove 138 kV breaker 'OG5' with 63 kA breakers	APS (100%)
b2431	Replace the Oak Grove 138 kV breaker 'OG6' with 63 kA breakers	APS (100%)
b2432	Replace the Ridgeley 138 kV breaker 'RC1' with a 40 kA rated breaker	APS (100%)
b2440	Replace the Cabot 138 kV breaker 'C9-KISKI VLY' with 63 kA	APS (100%)
b2472	Replace the Ringgold 138 kV breaker 'RCM1' with 40 kA breakers	APS (100%)
b2473	Replace the Ringgold 138 kV breaker '#4 XMFR' with 40 kA breakers	APS (100%)
b2475	Construct a new line between Oak Mound 138 kV substation and Waldo Run 138 kV substation	APS (100%)
b2545.1	Construct a new 138 kV substation (Shuman Hill substation) connected to the Fairview –Willow Island (84) 138 kV line	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2545.2	Install a ring bus station with five active positions and two 52.8 MVAR capacitors with 0.941 mH reactors		APS (100%)
b2545.3	Install a +90/-30 MVAR SVC protected by a 138 kV breaker		APS (100%)
b2545.4	Remove the 31.7 MVAR capacitor bank at Mobley 138 kV		APS (100%)
b2546	Install a 51.8 MVAR (rated) 138 kV capacitor at Nyswaner 138 kV substation		APS (100%)
b2547.1	Construct a new 138 kV six breaker ring bus Hillman substation		APS (100%)
b2547.2	Loop Smith- Imperial 138 kV line into the new Hillman substation		APS (100%)
b2547.3	Install +125/-75 MVAR SVC at Hillman substation		APS (100%)
b2547.4	Install two 31.7 MVAR 138 kV capacitors		APS (100%)
b2548	Eliminate clearance de-rate on Wylie Ridge – Smith 138 kV line and upgrade terminals at Smith 138 kV, new line ratings 294 MVA (Rate A)/350 MVA (Rate B)		APS (100%)
b2612.1	Relocate All Dam 6 138 kV line and the 138 kV line to AE units 1&2		APS (100%)
b2612.2	Install 138 kV, 3000A bus-tie breaker in the open bus-tie position next to the Shaffers corner 138 kV line		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2612.3	Install a 6-pole manual switch, foundation, control cable, and all associated facilities		APS (100%)
b2666	Yukon 138 kV Breaker Replacement		APS (100%)
b2666.1	Replace Yukon 138 kV breaker "Y-11(CHARL1)" with an 80 kA breaker		APS (100%)
b2666.2	Replace Yukon 138 kV breaker "Y-13(BETHEL)" with an 80 kA breaker		APS (100%)
b2666.3	Replace Yukon 138 kV breaker "Y-18(CHARL2)" with an 80 kA breaker		APS (100%)
b2666.4	Replace Yukon 138 kV breaker "Y-19(CHARL2)" with an 80 kA breaker		APS (100%)
b2666.5	Replace Yukon 138 kV breaker "Y-4(4B-2BUS)" with an 80 kA breaker		APS (100%)
b2666.6	Replace Yukon 138 kV breaker "Y-5(LAYTON)" with an 80 kA breaker		APS (100%)
b2666.7	Replace Yukon 138 kV breaker "Y-8(HUNTING)" with an 80 kA breaker		APS (100%)
b2666.8	Replace Yukon 138 kV breaker "Y-9(SPRINGD)" with an 80 kA breaker		APS (100%)
b2666.9	Replace Yukon 138 kV breaker "Y-10(CHRL-SP)" with an 80 kA breaker		APS (100%)
b2666.10	Replace Yukon 138 kV breaker "Y-12(1-1BUS)" with an 80 kA breaker		APS (100%)
b2666.11	Replace Yukon 138 kV breaker "Y-14(4-1BUS)" with an 80 kA breaker		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2666.12	Replace Yukon 138 kV breaker “Y-2(1B-BETHE)” with an 80 kA breaker		APS (100%)
b2666.13	Replace Yukon 138 kV breaker “Y-21(SHEPJ)” with an 80 kA breaker		APS (100%)
b2666.14	Replace Yukon 138 kV breaker “Y-22(SHEPHJT)” with an 80 kA breaker		APS (100%)
b2672	Change CT Ratio at Seneca Caverns from 120/1 to 160/1 and adjust relay settings accordingly		APS (100%)
b2688.3	Carroll Substation: Replace the Germantown 138 kV wave trap, upgrade the bus conductor and adjust CT ratios		AEP (12.91%) / APS (19.04%) / ATSI (1.24%) / ComEd (0.35%) / Dayton (1.45%) / DEOK (2.30%) / DL (1.11%) / Dominion (44.85%) / EKPC (0.78%) / PEPCO (15.85%) / RECO (0.12%)
b2689.3	Upgrade terminal equipment at structure 27A		APS (100%)
b2696	Upgrade 138 kV substation equipment at Butler, Shanor Manor and Krendale substations. New rating of line will be 353 MVA summer normal/422 MVA emergency		APS (100%)
b2700	Remove existing Black Oak SPS		APS (100%)
b2743.6	Reconfigure the Ringgold 230 kV substation to double bus double breaker scheme		AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2743.6.1	Replace the two Ringgold 230/138 kV transformers	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2743.7	Rebuild/Reconductor the Ringgold – Catoctin 138 kV circuit and upgrade terminal equipment on both ends	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) / DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
b2747.1	Relocate the FirstEnergy Pratts 138 kV terminal CVTs at Gordonsville substation to allow for the installation of a new motor operated switch being installed by Dominion	APS (100%)
b2763	Replace the breaker risers and wave trap at Bredinville 138 kV substation on the Cabrey Junction 138 kV terminal	APS (100%)
b2764	Upgrade Fairview 138 kV breaker risers and disconnect leads; Replace 500 CU breaker risers and 556 ACSR disconnect leads with 795 ACSR	APS (100%)
b2964.1	Replace terminal equipment at Pruntytown and Glen Falls 138 kV station	APS (100%)
b2964.2	Reconductor approximately 8.3 miles of the McAlpin - White Hall Junction 138 kV circuit	APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2965	Reconductor the Charleroi – Allenport 138 kV line with 954 ACSR conductor. Replace breaker risers at Charleroi and Allenport		DL (100%)
b2966	Reconductor the Yukon – Smithton – Shepler Hill Jct 138 kV line with 795 ACSS conductor. Replace Line Disconnect Switch at Yukon		APS (100%)
b2966.1	Reconductor the Yukon - Smithton - Shepler Hill Jct 138 kV line and replace terminal equipment as necessary to achieve required rating		APS (100%)
b2967	Convert the existing 6 wire Butler - Shanor Manor - Krendale 138 kV line into two separate 138 kV lines. New lines will be Butler - Keisters and Butler - Shanor Manor - Krendale 138 kV		APS (100%)
b2970	Ringgold – Catoctin Solution		APS (100%)
b2970.1	Install two new 230 kV positions at Ringgold for 230/138 kV transformers		APS (100%)
b2970.2	Install new 230 kV position for Ringgold – Catoctin 230 kV line		APS (100%)
b2970.3	Install one new 230 kV breaker at Catoctin substation		APS (100%)
b2970.4	Install new 230/138 kV transformer at Catoctin substation. Convert Ringgold – Catoctin 138 kV line to 230 kV operation		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2970.5	Convert Garfield 138/12.5 kV substation to 230/12.5 kV		APS (100%)
b2996	Construct new Flint Run 500/138 kV substation		See sub-IDs for cost allocations
b2996.1	Construct a new 500/138 kV substation as a 4-breaker ring bus with expansion plans for double-breaker-double-bus on the 500 kV bus and breaker-and-a-half on the 138 kV bus to provide EHV source to the Marcellus shale load growth area. Projected load growth of additional 160 MVA to current plan of 280 MVA, for a total load of 440 MVA served from Waldo Run substation. Construct additional 3-breaker string at Waldo Run 138 kV bus. Relocate the Sherwood #2 line terminal to the new string. Construct two single circuit Flint Run - Waldo Run 138 kV lines using 795 ACSR (approximately 3 miles). After terminal relocation on new 3-breaker string at Waldo Run, terminate new Flint Run 138 kV lines onto the two open terminals		APS (100%)
b2996.2	Loop the Belmont – Harrison 500 kV line into and out of the new Flint Run 500 kV substation (less than 1 mile). Replace primary relaying and carrier sets on Belmont and Harrison 500 kV remote end substations		APS (100%)
b2996.3	Upgrade two (2) existing 138 kV breakers (Rider 50 and #1/4 transformer breaker) at Glen Falls with 63 kA 3000A units		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3005 Reconductor 3.1 mile 556 ACSR portion of Cabot to Butler 138 kV with 556 ACSS and upgrade terminal equipment. 3.1 miles of line will be reconducted for this project. The total length of the line is 7.75 miles		APS (100%)
b3006 Replace four Yukon 500/138 kV transformers with three transformers with higher rating and reconfigure 500 kV bus		APS (70.87%) / DL (29.13%)
b3007.1 Reconductor the Blairsville East to Social Hall 138 kV line and upgrade terminal equipment - AP portion. 4.8 miles total. The new conductor will be 636 ACSS replacing the existing 636 ACSR conductor. At Social Hall, meters, relays, bus conductor, a wave trap, circuit breaker and disconnects will be replaced		APS (100%)
b3010 Replace terminal equipment at Keystone and Cabot 500 kV buses. At Keystone, bus tubing and conductor, a wave trap, and meter will be replaced. At Cabot, a wave trap and bus conductor will be replaced		APS (100%)
b3011.1 Construct new Route 51 substation and connect 10 138 kV lines to new substation		DL (100%)
b3011.2 Upgrade terminal equipment at Yukon to increase rating on Yukon to Charleroi #2 138 kV line (New Yukon to Route 51 #4 138 kV line)		DL (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3011.3	Upgrade terminal equipment at Yukon to increase rating on Yukon to Route 51 #1 138 kV line		DL (100%)
b3011.4	Upgrade terminal equipment at Yukon to increase rating on Yukon to Route 51 #2 138 kV line		DL (100%)
b3011.5	Upgrade terminal equipment at Yukon to increase rating on Yukon to Route 51 #3 138 kV line		DL (100%)
b3011.6	Upgrade remote end relays for Yukon – Allenport – Iron Bridge 138 kV line		DL (100%)
b3012.1	Construct two new 138 kV ties with the single structure from APS's new substation to Duquesne's new substation. The estimated line length is approximately 4.7 miles. The line is planned to use multiple ACSS conductors per phase		ATSI (38.21%) / DL (61.79%)
b3012.3	Construct a new Elrama – Route 51 138 kV No.3 line: reconductor 4.7 miles of the existing line, and construct 1.5 miles of a new line to the reconducted portion. Install a new line terminal at APS Route 51 substation		DL (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3013	Reconductor Vasco Tap to Edgewater Tap 138 kV line. 4.4 miles. The new conductor will be 336 ACSS replacing the existing 336 ACSR conductor		APS (100%)
b3015.6	Reconductor Elrama to Mitchell 138 kV line – AP portion. 4.2 miles total. 2x 795 ACSS/TW 20/7		DL (100%)
b3015.8	Upgrade terminal equipment at Mitchell for Mitchell – Elrama 138 kV line		APS (100%)
b3028	Upgrade substation disconnect leads at William 138 kV substation		APS (100%)
b3051.1	Ronceverte cap bank and terminal upgrades		APS (100%)
b3052	Install a 138 kV capacitor (29.7 MVAR effective) at West Winchester 138 kV		APS (100%)
b3064.3	Upgrade line relaying at Piney Fork and Bethel Park for Piney For – Elrama 138 kV line and Bethel Park – Elrama 138 kV		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3068	Reconductor the Yukon – Westraver 138 kV line (2.8 miles), replace the line drops and relays at Yukon 138 kV and replace switches at Westraver 138 kV bus		APS (100%)
b3069	Reconductor the Westraver – Route 51 138 kV line (5.63 miles) and replace line switches at Westraver 138 kV bus		APS (100%)
b3070	Reconductor the Yukon – Route 51 #1 138 kV line (8 miles), replace the line drops, relays and line disconnect switch at Yukon 138 kV bus		APS (100%)
b3071	Reconductor the Yukon – Route 51 #2 138 kV line (8 miles) and replace relays at Yukon 138 kV bus		APS (100%)
b3072	Reconductor the Yukon – Route 51 #3 138 kV line (8 miles) and replace relays at Yukon 138 kV bus		APS (100%)
b3074	Reconductor the 138 kV bus at Armstrong substation		APS (100%)
b3075	Replace the 500/138 kV transformer breaker and reconductor 138 kV bus at Cabot substation		APS (100%)
b3076	Reconductor the Edgewater – Loyalhanna 138 kV line (0.67 mile)		APS (100%)
b3079	Replace the Wylie Ridge 500/345 kV transformer #7		ATSI (72.30%) / DL (27.70%)
b3083	Reconductor the 138 kV bus at Butler and reconductor the 138 kV bus and replace line trap at Karns City		APS (100%)

Monongahela Power Company, The Potomac Edison Company, and West Penn Power Company, all doing business as Allegheny Power (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3128	Relocate 34.5 kV lines from generating station roof R. Paul Smith 138 kV station		APS (100%)
b3230	At Enon substation install a second 138 kV, 28.8 MVAR nameplate, capacitor and the associated 138 kV capacitor switcher		APS (100%)
b3240	Upgrade Cherry Run and Morgan terminals to make the transmission line the limiting component		APS (100%)
b3241	Install 138 kV, 36 MVAR capacitor and a 5 uF reactor protected by a 138 kV capacitor switcher. Install a breaker on the 138 kV Junction terminal. Install a 138 kV 3.5 uF reactor on the existing Hardy 138 kV capacitor		APS (100%)
b3242	Reconfigure Stonewall 138 kV substation from its current configuration to a six-breaker, breaker-and-a-half layout and add two (2) 36 MVAR capacitors with capacitor switchers		APS (100%)

SCHEDULE 12 – APPENDIX A

- (17) *American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company*

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1570.4	Add a 345 kV breaker at Marysville station and a 0.1 mile 345 kV line extension from Marysville to the new 345/69 kV Dayton transformer	AEP (100%)
b1660.1	Cloverdale: install 6-765 kV breakers, incremental work for 2 additional breakers, reconfigure and relocate miscellaneous facilities, establish 500 kV station and 500 kV tie with 765 kV station	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: BGE (44.54%) / Dayton (0.16%) / DEOK (0.40%) / Dominion (1.04%) / EKPC (0.24%) / PEPCO (53.62%)</p>

*Neptune Regional Transmission System, LLC

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1797.1	Reconductor the AEP portion of the Cloverdale - Lexington 500 kV line with 2-1780 ACSS	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEP (1.27%) / APS (23.58%) / ATSI (0.69%) / BGE (32.30%) / Dayton (0.27%) / DEOK (0.66%) / Dominion (1.92%) / EKPC (0.38%) / PEPCO (38.93%)</p>
b2055	Upgrade relay at Brues station	AEP (100%)
b2122.3	Upgrade terminal equipment at Howard on the Howard - Brookside 138 kV line to achieve ratings of 252/291 (SN/SE)	AEP (100%)
b2122.4	Perform a sag study on the Howard - Brookside 138 kV line	AEP (100%)
b2229	Install a 300 MVAR reactor at Dequine 345 kV	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2230	Replace existing 150 MVAR reactor at Amos 765 kV substation on Amos - N. Proctorville - Hanging Rock with 300 MVAR reactor	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: AEP (100%)
b2231	Install 765 kV reactor breaker at Dumont 765 kV substation on the Dumont - Wilton Center line	AEP (100%)
b2232	Install 765 kV reactor breaker at Marysville 765 kV substation on the Marysville - Maliszewski line	AEP (100%)
b2233	Change transformer tap settings for the Baker 765/345 kV transformer	AEP (100%)
b2252	Loop the North Muskingum - Crooksville 138 kV line into AEP's Philo 138 kV station which lies approximately 0.4 miles from the line	AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2253	Install an 86.4 MVAR capacitor bank at Gorsuch 138 kV station in Ohio		AEP (100%)
b2254	Rebuild approximately 4.9 miles of Corner - Degussa 138 kV line in Ohio		AEP (100%)
b2255	Rebuild approximately 2.8 miles of Maliszewski - Polaris 138 kV line in Ohio		AEP (100%)
b2256	Upgrade approximately 36 miles of 138 kV through path facilities between Harrison 138 kV station and Ross 138 kV station in Ohio		AEP (100%)
b2257	Rebuild the Pokagon - Corey 69 kV line as a double circuit 138 kV line with one side at 69 kV and the other side as an express circuit between Pokagon and Corey stations		AEP (100%)
b2258	Rebuild 1.41 miles of #2 CU 46 kV line between Tams Mountain - Slab Fork to 138 kV standards. The line will be strung with 1033 ACSR		AEP (100%)
b2259	Install a new 138/69 kV transformer at George Washington 138/69 kV substation to provide support to the 69 kV system in the area		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2286	Rebuild 4.7 miles of Muskingum River - Wolf Creek 138 kV line and remove the 138/138 kV transformer at Wolf Creek Station		AEP (100%)
b2287	Loop in the Meadow Lake - Olive 345 kV circuit into Reynolds 765/345 kV station		AEP (100%)

American Electric Power Service Corporation on behalf of its affiliate companies: AEP Appalachian Transmission Company, Inc.; AEP Indiana Michigan Transmission Company, Inc.; AEP Kentucky Transmission Company, Inc.; AEP Ohio Transmission Company, Inc.; AEP West Virginia Transmission Company, Inc.; Appalachian Power Company; Indiana Michigan Power Company; Kentucky Power Company; Kingsport Power Company; Ohio Power Company and Wheeling Power Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2344.1	Establish a new 138/12 kV station, transfer and consolidate load from its Nicholasville and Marcellus 34.5 kV stations at this new station		AEP (100%)
b2344.2	Tap the Hydramatic – Valley 138 kV circuit (~ structure 415), build a new 138 kV line (~3.75 miles) to this new station		AEP (100%)
b2344.3	From this station, construct a new 138 kV line (~1.95 miles) to REA’s Marcellus station		AEP (100%)
b2344.4	From REA’s Marcellus station construct new 138 kV line (~2.35 miles) to a tap point on Valley – Hydramatic 138 kV ckt (~structure 434)		AEP (100%)
b2344.5	Retire sections of the 138 kV line in between structure 415 and 434 (~ 2.65 miles)		AEP (100%)
b2344.6	Retire AEP’s Marcellus 34.5/12 kV and Nicholasville 34.5/12 kV stations and also the Marcellus – Valley 34.5 kV line		AEP (100%)
b2345.1	Construct a new 69 kV line from Hartford to Keeler (~8 miles)		AEP (100%)
b2345.2	Rebuild the 34.5 kV lines between Keeler - Sister Lakes and Glenwood tap switch to 69 kV (~12 miles)		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2345.3	Implement in - out at Keeler and Sister Lakes 34.5 kV stations		AEP (100%)
b2345.4	Retire Glenwood tap switch and construct a new Rothadew station. These new lines will continue to operate at 34.5 kV		AEP (100%)
b2346	Perform a sag study for Howard - North Bellville - Millwood 138 kV line including terminal equipment upgrades		AEP (100%)
b2347	Replace the North Delphos 600A switch. Rebuild approximately 18.7 miles of 138 kV line North Delphos - S073. Reconductor the line and replace the existing tower structures		AEP (100%)
b2348	Construct a new 138 kV line from Richlands Station to intersect with the Hales Branch - Grassy Creek 138 kV circuit		AEP (100%)
b2374	Change the existing CT ratios of the existing equipment along Bearskin - Smith Mountain 138 kV circuit		AEP (100%)
b2375	Change the existing CT ratios of the existing equipment along East Danville-Banister 138 kV circuit		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2376	Replace the Turner 138 kV breaker 'D'		AEP (100%)
b2377	Replace the North Newark 138 kV breaker 'P'		AEP (100%)
b2378	Replace the Sporn 345 kV breaker 'DD'		AEP (100%)
b2379	Replace the Sporn 345 kV breaker 'DD2'		AEP (100%)
b2380	Replace the Muskingum 345 kV breaker 'SE'		AEP (100%)
b2381	Replace the East Lima 138 kV breaker 'E1'		AEP (100%)
b2382	Replace the Delco 138 kV breaker 'R'		AEP (100%)
b2383	Replace the Sporn 345 kV breaker 'AA2'		AEP (100%)
b2384	Replace the Sporn 345 kV breaker 'CC'		AEP (100%)
b2385	Replace the Sporn 345 kV breaker 'CC2'		AEP (100%)
b2386	Replace the Astor 138 kV breaker '102'		AEP (100%)
b2387	Replace the Muskingum 345 kV breaker 'SH'		AEP (100%)
b2388	Replace the Muskingum 345 kV breaker 'SI'		AEP (100%)
b2389	Replace the Hyatt 138 kV breaker '105N'		AEP (100%)
b2390	Replace the Muskingum 345 kV breaker 'SG'		AEP (100%)
b2391	Replace the Hyatt 138 kV breaker '101C'		AEP (100%)
b2392	Replace the Hyatt 138 kV breaker '104N'		AEP (100%)
b2393	Replace the Hyatt 138 kV breaker '104S'		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2394	Replace the Sporn 345 kV breaker 'CC1'		AEP (100%)
b2409	Install two 56.4 MVAR capacitor banks at the Melmore 138 kV station in Ohio		AEP (100%)
b2410	Convert Hogan Mullin 34.5 kV line to 138 kV, establish 138 kV line between Jones Creek and Strawton, rebuild existing Mullin Elwood 34.5 kV and terminate line into Strawton station, retire Mullin station		AEP (100%)
b2411	Rebuild the 3/0 ACSR portion of the Hadley - Kroemer Tap 69 kV line utilizing 795 ACSR conductor		AEP (100%)
b2423	Install a 300 MVAR shunt reactor at AEP's Wyoming 765 kV station		Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
			DFAX Allocation: AEP (100%)

*Neptune Regional Transmission System, LLC

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2444	Willow - Eureka 138 kV line: Reconductor 0.26 mile of 4/0 CU with 336 ACSS		AEP (100%)
b2445	Complete a sag study of Tidd - Mahans Lake 138 kV line		AEP (100%)
b2449	Rebuild the 7-mile 345 kV line between Meadow Lake and Reynolds 345 kV stations		AEP (100%)
b2462	Add two 138 kV circuit breakers at Fremont station to fix tower contingency '408 2'		AEP (100%)
b2501	Construct a new 138/69 kV Yager station by tapping 2-138 kV FE circuits (Nottingham-Cloverdale, Nottingham-Harmon)		AEP (100%)
b2501.2	Build a new 138 kV line from new Yager station to Azalea station		AEP (100%)
b2501.3	Close the 138 kV loop back into Yager 138 kV by converting part of local 69 kV facilities to 138 kV		AEP (100%)
b2501.4	Build 2 new 69 kV exits to reinforce 69 kV facilities and upgrade conductor between Irish Run 69 kV Switch and Bowerstown 69 kV Switch		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2502.1	Construct new 138 kV switching station Nottingham tapping 6-138 kV FE circuits (Holloway-Brookside, Holloway-Harmon #1 and #2, Holloway-Reeds, Holloway-New Stacy, Holloway-Cloverdale). Exit a 138 kV circuit from new station to Freebyrd station		AEP (100%)
b2502.2	Convert Freebyrd 69 kV to 138 kV		AEP (100%)
b2502.3	Rebuild/convert Freebyrd-South Cadiz 69 kV circuit to 138 kV		AEP (100%)
b2502.4	Upgrade South Cadiz to 138 kV breaker and a half		AEP (100%)
b2530	Replace the Sporn 138 kV breaker 'G1' with 80 kA breaker		AEP (100%)
b2531	Replace the Sporn 138 kV breaker 'D' with 80 kA breaker		AEP (100%)
b2532	Replace the Sporn 138 kV breaker 'O1' with 80 kA breaker		AEP (100%)
b2533	Replace the Sporn 138 kV breaker 'P2' with 80 kA breaker		AEP (100%)
b2534	Replace the Sporn 138 kV breaker 'U' with 80 kA breaker		AEP (100%)
b2535	Replace the Sporn 138 kV breaker 'O' with 80 kA breaker		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2536	Replace the Sporn 138 kV breaker 'O2' with 80 kA breaker		AEP (100%)
b2537	Replace the Robinson Park 138 kV breakers A1, A2, B1, B2, C1, C2, D1, D2, E1, E2, and F1 with 63 kA breakers		AEP (100%)
b2555	Reconductor 0.5 miles Tiltonsville – Windsor 138 kV and string the vacant side of the 4.5 mile section using 556 ACSR in a six wire configuration		AEP (100%)
b2556	Install two 138 kV prop structures to increase the maximum operating temperature of the Clinch River- Clinch Field 138 kV line		AEP (100%)
b2581	Temporary operating procedure for delay of upgrade b1464. Open the Corner 138 kV circuit breaker 86 for an overload of the Corner – Washington MP 138 kV line. The tower contingency loss of Belmont – Trissler 138 kV and Belmont – Edgelawn 138 kV should be added to Operational contingency		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2591	Construct a new 69 kV line approximately 2.5 miles from Colfax to Drewry's. Construct a new Drewry's station and install a new circuit breaker at Colfax station.		AEP (100%)
b2592	Rebuild existing East Coshocton – North Coshocton double circuit line which contains Newcomerstown – N. Coshocton 34.5 kV Circuit and Coshocton – North Coshocton 69 kV circuit		AEP (100%)
b2593	Rebuild existing West Bellaire – Glencoe 69 kV line with 138 kV & 69 kV circuits and install 138/69 kV transformer at Glencoe Switch		AEP (100%)
b2594	Rebuild 1.0 mile of Brantley – Bridge Street 69 kV Line with 1033 ACSR overhead conductor		AEP (100%)
b2595.1	Rebuild 7.82 mile Elkhorn City – Haysi S.S 69 kV line utilizing 1033 ACSR built to 138 kV standards		AEP (100%)
b2595.2	Rebuild 5.18 mile Moss – Haysi SS 69 kV line utilizing 1033 ACSR built to 138 kV standards		AEP (100%)
b2596	Move load from the 34.5 kV bus to the 138 kV bus by installing a new 138/12 kV XF at New Carlisle station in Indiana		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2597	Rebuild approximately 1 mi. section of Dragoon-Virgil Street 34.5 kV line between Dragoon and Dodge Tap switch and replace Dodge switch MOAB to increase thermal capability of Dragoon-Dodge Tap branch		AEP (100%)
b2598	Rebuild approximately 1 mile section of the Kline-Virgil Street 34.5 kV line between Kline and Virgil Street tap. Replace MOAB switches at Beiger, risers at Kline, switches and bus at Virgil Street.		AEP (100%)
b2599	Rebuild approximately 0.1 miles of 69 kV line between Albion and Albion tap		AEP (100%)
b2600	Rebuild Fremont – Pound line as 138 kV		AEP (100%)
b2601	Fremont Station Improvements		AEP (100%)
b2601.1	Replace MOAB towards Beaver Creek with 138 kV breaker		AEP (100%)
b2601.2	Replace MOAB towards Clinch River with 138 kV breaker		AEP (100%)
b2601.3	Replace 138 kV Breaker A with new bus-tie breaker		AEP (100%)
b2601.4	Re-use Breaker A as high side protection on transformer #1		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2601.5	Install two (2) circuit switchers on high side of transformers # 2 and 3 at Fremont Station		AEP (100%)
b2602.1	Install 138 kV breaker E2 at North Proctorville		AEP (100%)
b2602.2	Construct 2.5 Miles of 138 kV 1033 ACSR from East Huntington to Darrah 138 kV substations		AEP (100%)
b2602.3	Install breaker on new line exit at Darrah towards East Huntington		AEP (100%)
b2602.4	Install 138 kV breaker on new line at East Huntington towards Darrah		AEP (100%)
b2602.5	Install 138 kV breaker at East Huntington towards North Proctorville		AEP (100%)
b2603	Boone Area Improvements		AEP (100%)
b2603.1	Purchase approximately a 200X300 station site near Slaughter Creek 46 kV station (Wilbur Station)		AEP (100%)
b2603.2	Install 3 138 kV circuit breakers, Cabin Creek to Hernshaw 138 kV circuit		AEP (100%)
b2603.3	Construct 1 mi. of double circuit 138 kV line on Wilbur – Boone 46 kV line with 1590 ACSS 54/19 conductor @ 482 Degree design temp. and 1-159 12/7 ACSR and one 86 Sq.MM. 0.646” OPGW Static wires		AEP (100%)
b2604	Bellefonte Transformer Addition		AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2604.1	Remove approximately 11.32 miles of the 69 kV line between Millbrook Park and Franklin Furnace	AEP (100%)
b2604.2	At Millbrook Park station, add a new 138/69 kV Transformer #2 (90 MVA) with 3000 A 40 kA breakers on the high and low side. Replace the 600 A MOAB switch and add a 3000 A circuit switcher on the high side of Transformer #1	AEP (100%)
b2604.3	Replace Sciotoville 69 kV station with a new 138/12 kV in-out station (Cottrell) with 2000 A line MOABs facing Millbrook Park and East Wheelersburg 138 kV station	AEP (100%)
b2604.4	Tie Cottrell switch into the Millbrook Park – East Wheelersburg 138 kV circuit by constructing 0.50 mile of line using 795 ACSR 26/7 Drake (SE 359 MVA)	AEP (100%)
b2604.5	Install a new 2000 A 3-way PoP switch outside of Texas Eastern 138 kV substation (Sadiq switch)	AEP (100%)
b2604.6	Replace the Wheelersburg 69 kV station with a new 138/12 kV in-out station (Sweetgum) with a 3000 A 40 kA breaker facing Sadiq switch and a 2000 A 138 kV MOAB facing Althea	AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2604.7	Build approximately 1.4 miles of new 138 kV line using 795 ACSR 26/7 Drake (SE 359 MVA) between the new Sadiq switch and the new Sweetgum 138 kV station		AEP (100%)
b2604.8	Remove the existing 69 kV Hayport Road switch		AEP (100%)
b2604.9	Rebuild approximately 2.3 miles along existing Right-Of-Way from Sweetgum to the Hayport Road switch 69 kV location as 138 kV single circuit and rebuild approximately 2.0 miles from the Hayport Road switch to Althea 69 kV with double circuit 138 kV construction, one side operated at 69 kV to continue service to K.O. Wheelersburg, using 795 ACSR 26/7 Drake (SE 359 MVA)		AEP (100%)
b2604.10	Build a new station (Althea) with a 138/69 kV, 90 MVA transformer. The 138 kV side will have a single 2000 A 40 kA circuit breaker and the 69 kV side will be a 2000 A 40 kA three breaker ring bus		AEP (100%)
b2604.11	Remote end work at Hanging Rock, East Wheelersburg and North Haverhill 138 kV		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2605	Rebuild and reconductor Kammer – George Washington 69 kV circuit and George Washington – Moundsville ckt #1, designed for 138 kV. Upgrade limiting equipment at remote ends and at tap stations	AEP (100%)
b2606	Convert Bane – Hammondsville from 23 kV to 69 kV operation	AEP (100%)
b2607	Pine Gap Relay Limit Increase	AEP (100%)
b2608	Richlands Relay Upgrade	AEP (100%)
b2609	Thorofare – Goff Run – Powell Mountain 138 kV Build	AEP (100%)
b2610	Rebuild Pax Branch – Scaraboro as 138 kV	AEP (100%)
b2611	Skin Fork Area Improvements	AEP (100%)
b2611.1	New 138/46 kV station near Skin Fork and other components	AEP (100%)
b2611.2	Construct 3.2 miles of 1033 ACSR double circuit from new Station to cut into Sundial-Baileysville 138 kV line	AEP (100%)
b2634.1	Replace metering BCT on Tanners Creek CB T2 with a slip over CT with higher thermal rating in order to remove 1193 MVA limit on facility (Miami Fort-Tanners Creek 345 kV line)	AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2643	Replace the Darrah 138 kV breaker 'L' with 40 kA rated breaker		AEP (100%)
b2645	Ohio Central 138 kV Loop		AEP (100%)
b2667	Replace the Muskingum 138 kV bus # 1 and 2		AEP (100%)
b2668	Reconductor Dequine to Meadow Lake 345 kV circuit #1 utilizing dual 954 ACSR 54/7 cardinal conductor		AEP (100%)
b2669	Install a second 345/138 kV transformer at Desoto		AEP (100%)
b2670	Replace switch at Elk Garden 138 kV substation (on the Elk Garden – Lebanon 138 kV circuit)		AEP (100%)
b2671	Replace/upgrade/add terminal equipment at Bradley, Mullensville, Pinnacle Creek, Itmann, and Tams Mountain 138 kV substations. Sag study on Mullens – Wyoming and Mullens – Tams Mt. 138 kV circuits		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2687.1	Install a +/- 450 MVAR SVC at Jacksons Ferry 765 kV substation	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEP (100%)</p>

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2687.2	Install a 300 MVAR shunt line reactor on the Broadford end of the Broadford – Jacksons Ferry 765 kV line	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: AEP (100%)</p>
b2697.1	Mitigate violations identified by sag study to operate Fieldale-Thornton-Franklin 138 kV overhead line conductor at its max. operating temperature. 6 potential line crossings to be addressed	AEP (100%)
b2697.2	Replace terminal equipment at AEP's Danville and East Danville substations to improve thermal capacity of Danville – East Danville 138 kV circuit	AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2698	Replace relays at AEP's Cloverdale and Jackson's Ferry substations to improve the thermal capacity of Cloverdale – Jackson's Ferry 765 kV line		AEP (100%)
b2701.1	Construct Herlan station as breaker and a half configuration with 9-138 kV CB's on 4 strings and with 2-28.8 MVAR capacitor banks		AEP (100%)
b2701.2	Construct new 138 kV line from Herlan station to Blue Racer station. Estimated approx. 3.2 miles of 1234 ACSS/TW Yukon and OPGW		AEP (100%)
b2701.3	Install 1-138 kV CB at Blue Racer to terminate new Herlan circuit		AEP (100%)
b2714	Rebuild/upgrade line between Glencoe and Willow Grove Switch 69 kV		AEP (100%)
b2715	Build approximately 11.5 miles of 34.5 kV line with 556.5 ACSR 26/7 Dove conductor on wood poles from Flushing station to Smyrna station		AEP (100%)
b2727	Replace the South Canton 138 kV breakers 'K', 'J', 'J1', and 'J2' with 80 kA breakers		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2731	Convert the Sunnyside – East Sparta – Malvern 23 kV sub-transmission network to 69 kV. The lines are already built to 69 kV standards		AEP (100%)
b2733	Replace South Canton 138 kV breakers ‘L’ and ‘L2’ with 80 kA rated breakers		AEP (100%)
b2750.1	Retire Betsy Layne 138/69/43 kV station and replace it with the greenfield Stanville station about a half mile north of the existing Betsy Layne station		AEP (100%)
b2750.2	Relocate the Betsy Layne capacitor bank to the Stanville 69 kV bus and increase the size to 14.4 MVAR		AEP (100%)
b2753.1	Replace existing George Washington station 138 kV yard with GIS 138 kV breaker and a half yard in existing station footprint. Install 138 kV revenue metering for new IPP connection		AEP (100%)
b2753.2	Replace Dilles Bottom 69/4 kV Distribution station as breaker and a half 138 kV yard design including AEP Distribution facilities but initial configuration will constitute a 3 breaker ring bus		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2753.3	Connect two 138 kV 6-wired circuits from “Point A” (currently de-energized and owned by FirstEnergy) in circuit positions previously designated Burger #1 & Burger #2 138 kV. Install interconnection settlement metering on both circuits exiting Holloway		AEP (100%)
b2753.6	Build double circuit 138 kV line from Dilles Bottom to “Point A”. Tie each new AEP circuit in with a 6-wired line at Point A. This will create a Dilles Bottom – Holloway 138 kV circuit and a George Washington – Holloway 138 kV circuit		AEP (100%)
b2753.7	Retire line sections (Dilles Bottom – Bellaire and Moundsville – Dilles Bottom 69 kV lines) south of FirstEnergy 138 kV line corridor, near “Point A”. Tie George Washington – Moundsville 69 kV circuit to George Washington – West Bellaire 69 kV circuit		AEP (100%)
b2753.8	Rebuild existing 69 kV line as double circuit from George Washington – Dilles Bottom 138 kV. One circuit will cut into Dilles Bottom 138 kV initially and the other will go past with future plans to cut in		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2760	Perform a Sag Study of the Saltville – Tazewell 138 kV line to increase the thermal rating of the line		AEP (100%)
b2761.1	Replace the Hazard 161/138 kV transformer		AEP (100%)
b2761.2	Perform a Sag Study of the Hazard – Wooten 161 kV line to increase the thermal rating of the line		AEP (100%)
b2761.3	Rebuild the Hazard – Wooten 161 kV line utilizing 795 26/7 ACSR conductor (300 MVA rating)		AEP (100%)
b2762	Perform a Sag Study of Nagel – West Kingsport 138 kV line to increase the thermal rating of the line		AEP (100%)
b2776	Reconductor the entire Dequine – Meadow Lake 345 kV circuit #2		AEP (100%)
b2777	Reconductor the entire Dequine – Eugene 345 kV circuit #1		EKPC (100%)
b2779.1	Construct a new 138 kV station, Campbell Road, tapping into the Grabill – South Hicksville 138 kV line		AEP (100%)
b2779.2	Reconstruct sections of the Butler-N.Hicksville and Auburn-Butler 69 kV circuits as 138 kV double circuit and extend 138 kV from Campbell Road station		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2779.3	Construct a new 345/138 kV SDI Wilmington Station which will be sourced from Collingwood 345 kV and serve the SDI load at 345 kV and 138 kV, respectively		AEP (100%)
b2779.4	Loop 138 kV circuits in-out of the new SDI Wilmington 138 kV station resulting in a direct circuit to Auburn 138 kV and an indirect circuit to Auburn and Rob Park via Dunton Lake, and a circuit to Campbell Road; Reconductor 138 kV line section between Dunton Lake – SDI Wilmington		AEP (100%)
b2779.5	Expand Auburn 138 kV bus		AEP (100%)
b2779.6	Construct a 345 kV ring bus at Dunton Lake to serve Steel Dynamics, Inc. (SDI) load at 345 kV via two (2) circuits		AEP (100%)
b2779.7	Retire Collingwood 345 kV station		AEP (100%)
b2787	Reconductor 0.53 miles (14 spans) of the Kaiser Jct. - Air Force Jct. Sw section of the Kaiser - Heath 69 kV circuit/line with 336 ACSR to match the rest of the circuit (73 MVA rating, 78% loading)		AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2788	Install a new 3-way 69 kV line switch to provide service to AEP's Barnesville distribution station. Remove a portion of the #1 copper T-Line from the 69 kV through-path		AEP (100%)
b2789	Rebuild the Brues - Glendale Heights 69 kV line section (5 miles) with 795 ACSR (128 MVA rating, 43% loading)		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2790	Install a 3 MVAR, 34.5 kV cap bank at Caldwell substation	AEP (100%)
b2791	Rebuild Tiffin – Howard, new transformer at Chatfield	AEP (100%)
b2791.1	Rebuild portions of the East Tiffin - Howard 69 kV line from East Tiffin to West Rockaway Switch (0.8 miles) using 795 ACSR Drake conductor (129 MVA rating, 50% loading)	AEP (100%)
b2791.2	Rebuild Tiffin - Howard 69 kV line from St. Stephen's Switch to Hinesville (14.7 miles) using 795 ACSR Drake conductor (90 MVA rating, non-conductor limited, 38% loading)	AEP (100%)
b2791.3	New 138/69 kV transformer with 138/69 kV protection at Chatfield	AEP (100%)
b2791.4	New 138/69 kV protection at existing Chatfield transformer	AEP (100%)
b2792	Replace the Elliott transformer with a 130 MVA unit, reconductor 0.42 miles of the Elliott – Ohio University 69 kV line with 556 ACSR to match the rest of the line conductor (102 MVA rating, 73% loading) and rebuild 4 miles of the Clark Street – Strouds R	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2793 Energize the spare Fremont Center 138/69 kV 130 MVA transformer #3. Reduces overloaded facilities to 46% loading		AEP (100%)
b2794 Construct new 138/69/34 kV station and 1-34 kV circuit (designed for 69 kV) from new station to Decliff station, approximately 4 miles, with 556 ACSR conductor (51 MVA rating)		AEP (100%)
b2795 Install a 34.5 kV 4.8 MVAR capacitor bank at Killbuck 34.5 kV station		AEP (100%)
b2796 Rebuild the Malvern - Oneida Switch 69 kV line section with 795 ACSR (1.8 miles, 125 MVA rating, 55% loading)		AEP (100%)
b2797 Rebuild the Ohio Central - Conesville 69 kV line section (11.8 miles) with 795 ACSR conductor (128 MVA rating, 57% loading). Replace the 50 MVA Ohio Central 138/69 kV XFMR with a 90 MVA unit		AEP (100%)
b2798 Install a 14.4 MVAR capacitor bank at West Hicksville station. Replace ground switch/MOAB at West Hicksville with a circuit switcher		AEP (100%)
b2799 Rebuild Valley - Almena, Almena - Hartford, Riverside - South Haven 69 kV lines. New line exit at Valley Station. New transformers at Almena and Hartford		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2799.1	Rebuild 12 miles of Valley – Almena 69 kV line as a double circuit 138/69 kV line using 795 ACSR conductor (360 MVA rating) to introduce a new 138 kV source into the 69 kV load pocket around Almena station	AEP (100%)
b2799.2	Rebuild 3.2 miles of Almena to Hartford 69 kV line using 795 ACSR conductor (90 MVA rating)	AEP (100%)
b2799.3	Rebuild 3.8 miles of Riverside – South Haven 69 kV line using 795 ACSR conductor (90 MVA rating)	AEP (100%)
b2799.4	At Valley station, add new 138 kV line exit with a 3000 A 40 kA breaker for the new 138 kV line to Almena and replace CB D with a 3000 A 40 kA breaker	AEP (100%)
b2799.5	At Almena station, install a 90 MVA 138/69 kV transformer with low side 3000 A 40 kA breaker and establish a new 138 kV line exit towards Valley	AEP (100%)
b2799.6	At Hartford station, install a second 90 MVA 138/69 kV transformer with a circuit switcher and 3000 A 40 kA low side breaker	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2817	Replace Delaware 138 kV breaker 'P' with a 40 kA breaker	AEP (100%)
b2818	Replace West Huntington 138 kV breaker 'F' with a 40 kA breaker	AEP (100%)
b2819	Replace Madison 138 kV breaker 'V' with a 63 kA breaker	AEP (100%)
b2820	Replace Sterling 138 kV breaker 'G' with a 40 kA breaker	AEP (100%)
b2821	Replace Morse 138 kV breakers '103', '104', '105', and '106' with 63 kA breakers	AEP (100%)
b2822	Replace Clinton 138 kV breakers '105' and '107' with 63 kA breakers	AEP (100%)
b2826.1	Install 300 MVAR reactor at Ohio Central 345 kV substation	AEP (100%)

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Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b2826.2	Install 300 MVAR reactor at West Bellaire 345 kV substation		AEP (100%)
b2831.1	Upgrade the Tanner Creek – Miami Fort 345 kV circuit (AEP portion)		DFAX Allocation: Dayton (99.99%) / EKPC (0.01%)
b2832	Six wire the Kyger Creek – Sporn 345 kV circuits #1 and #2 and convert them to one circuit		AEP (100%)
b2833	Reconductor the Maddox Creek – East Lima 345 kV circuit with 2-954 ACSS Cardinal conductor		DFAX Allocation: AEP (79.96%) / Dayton (20.04%)
b2834	Reconductor and string open position and sixwire 6.2 miles of the Chemical – Capitol Hill 138 kV circuit		AEP (100%)
b2872	Replace the South Canton 138 kV breaker ‘K2’ with a 80 kA breaker		AEP (100%)
b2873	Replace the South Canton 138 kV breaker “M” with a 80 kA breaker		AEP (100%)
b2874	Replace the South Canton 138 kV breaker “M2” with a 80 kA breaker		AEP (100%)
b2878	Upgrade the Clifty Creek 345 kV risers		AEP (100%)
b2880	Rebuild approximately 4.77 miles of the Cannonsburg – South Neal 69 kV line section utilizing 795 ACSR conductor (90 MVA rating)		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2881	Rebuild ~1.7 miles of the Dunn Hollow – London 46 kV line section utilizing 795 26/7 ACSR conductor (58 MVA rating, non-conductor limited)	AEP (100%)
b2882	Rebuild Reusens - Peakland Switch 69 kV line. Replace Peakland Switch	AEP (100%)
b2882.1	Rebuild the Reusens - Peakland Switch 69 kV line (approximately 0.8 miles) utilizing 795 ACSR conductor (86 MVA rating, non-conductor limited)	AEP (100%)
b2882.2	Replace existing Peakland S.S with new 3 way switch phase over phase structure	AEP (100%)
b2883	Rebuild the Craneco – Pardee – Three Forks – Skin Fork 46 kV line section (approximately 7.2 miles) utilizing 795 26/7 ACSR conductor (108 MVA rating)	AEP (100%)
b2884	Install a second transformer at Nagel station, comprised of 3 single phase 250 MVA 500/138 kV transformers. Presently, TVA operates their end of the Boone Dam – Holston 138 kV interconnection as normally open preemptively for the loss of the existing Nagel	AEP (100%)
b2885	New delivery point for City of Jackson	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2885.1	Install a new Ironman Switch to serve a new delivery point requested by the City of Jackson for a load increase request	AEP (100%)
b2885.2	Install a new 138/69 kV station (Rhodes) to serve as a third source to the area to help relieve overloads caused by the customer load increase	AEP (100%)
b2885.3	Replace Coalton Switch with a new three breaker ring bus (Heppner)	AEP (100%)
b2886	Install 90 MVA 138/69 kV transformer, new transformer high and low side 3000 A 40 kA CBs, and a 138 kV 40 kA bus tie breaker at West End Fostoria	AEP (100%)
b2887	Add 2-138 kV CB's and relocate 2-138 kV circuit exits to different bays at Morse Road. Eliminate 3 terminal line by terminating Genoa - Morse circuit at Morse Road	AEP (100%)
b2888	Retire Poston substation. Install new Lemaster substation	AEP (100%)
b2888.1	Remove and retire the Poston 138 kV station	AEP (100%)
b2888.2	Install a new greenfield station, Lemaster 138 kV Station, in the clear	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2888.3	Relocate the Trimble 69 kV AEP Ohio radial delivery point to 138 kV, to be served off of the Poston – Strouds Run – Crooksville 138 kV circuit via a new three-way switch. Retire the Poston - Trimble 69 kV line	AEP (100%)
b2889	Expand Cliffview station	AEP (100%)
b2889.1	Cliffview Station: Establish 138 kV bus. Install two 138/69 kV XFRs (130 MVA), six 138 kV CBs (40 kA 3000 A) and four 69 kV CBs (40 kA 3000 A)	AEP (100%)
b2889.2	Byllesby – Wythe 69 kV: Retire all 13.77 miles (1/0 CU) of this circuit (~4 miles currently in national forest)	AEP (100%)
b2889.3	Galax – Wythe 69 kV: Retire 13.53 miles (1/0 CU section) of line from Lee Highway down to Byllesby. This section is currently double circuited with Byllesby – Wythe 69 kV. Terminate the southern 3/0 ACSR section into the newly opened position at Byllesby	AEP (100%)
b2889.4	Cliffview Line: Tap the existing Pipers Gap – Jubal Early 138 kV line section. Construct double circuit in/out (~2 miles) to newly established 138 kV bus, utilizing 795 26/7 ACSR conductor	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2890.1	Rebuild 23.55 miles of the East Cambridge – Smyrna 34.5 kV circuit with 795 ACSR conductor (128 MVA rating) and convert to 69 kV	AEP (100%)
b2890.2	East Cambridge: Install a 2000 A 69 kV 40 kA circuit breaker for the East Cambridge – Smyrna 69 kV circuit	AEP (100%)
b2890.3	Old Washington: Install 69 kV 2000 A two way phase over phase switch	AEP (100%)
b2890.4	Install 69 kV 2000 A two way phase over phase switch	AEP (100%)
b2891	Rebuild the Midland Switch to East Findlay 34.5 kV line (3.31 miles) with 795 ACSR (63 MVA rating) to match other conductor in the area	AEP (100%)
b2892	Install new 138/12 kV transformer with high side circuit switcher at Leon and a new 138 kV line exit towards Ripley. Establish 138 kV at the Ripley station with a new 138/69 kV 130 MVA transformer and move the distribution load to 138 kV service	AEP (100%)
b2936.1	Rebuild approximately 6.7 miles of 69 kV line between Mottville and Pigeon River using 795 ACSR conductor (129 MVA rating). New construction will be designed to 138 kV standards but operated at 69 kV	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2936.2	Pigeon River Station: Replace existing MOAB Sw. 'W' with a new 69 kV 3000 A 40 kA breaker, and upgrade existing relays towards HMD station. Replace CB H with a 3000 A 40 kA breaker	AEP (100%)
b2937	Replace the existing 636 ACSR 138 kV bus at Fletchers Ridge with a larger 954 ACSR conductor	AEP (100%)
b2938	Perform a sag mitigations on the Broadford – Wolf Hills 138 kV circuit to allow the line to operate to a higher maximum temperature	AEP (100%)
b2958.1	Cut George Washington – Tidd 138 kV circuit into Sand Hill and reconfigure Brues & Warton Hill line entrances	AEP (100%)
b2958.2	Add 2 138 kV 3000 A 40 kA breakers, disconnect switches, and update relaying at Sand Hill station	AEP (100%)
b2968	Upgrade existing 345 kV terminal equipment at Tanner Creek station	AEP (100%)
b2969	Replace terminal equipment on Maddox Creek - East Lima 345 kV circuit	AEP (100%)
b2976	Upgrade terminal equipment at Tanners Creek 345 kV station. Upgrade 345 kV bus and risers at Tanners Creek for the Dearborn circuit	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2988	Replace the Twin Branch 345 kV breaker “JM” with 63 kA breaker and associated substation works including switches, bus leads, control cable and new DICM	AEP (100%)
b2993	Rebuild the Torrey – South Gambrinus Switch – Gambrinus Road 69 kV line section (1.3 miles) with 1033 ACSR ‘Curlew’ conductor and steel poles	AEP (100%)
b3000	Replace South Canton 138 kV breaker ‘N’ with an 80 kA breaker	AEP (100%)
b3001	Replace South Canton 138 kV breaker ‘N1’ with an 80 kA breaker	AEP (100%)
b3002	Replace South Canton 138 kV breaker ‘N2’ with an 80 kA breaker	AEP (100%)
b3036	Rebuild 15.6 miles of Haviland - North Delphos 138 kV line	AEP (100%)
b3037	Upgrades at the Natrium substation	AEP (100%)
b3038	Reconductor the Capitol Hill – Coco 138 kV line section	AEP (100%)
b3039	Line swaps at Muskingum 138 kV station	AEP (100%)
b3040.1	Rebuild Ravenswood – Racine tap 69 kV line section (~15 miles) to 69 kV standards, utilizing 795 26/7 ACSR conductor	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3040.2	Rebuild existing Ripley – Ravenswood 69 kV circuit (~9 miles) to 69 kV standards, utilizing 795 26/7 ACSR conductor	AEP (100%)
b3040.3	Install new 3-way phase over phase switch at Sarah Lane station to replace the retired switch at Cottageville	AEP (100%)
b3040.4	Install new 138/12 kV 20 MVA transformer at Polymer station to transfer load from Mill Run station to help address overload on the 69 kV network	AEP (100%)
b3040.5	Retire Mill Run station	AEP (100%)
b3040.6	Install 28.8 MVAR cap bank at South Buffalo station	AEP (100%)
b3051.2	Adjust CT tap ratio at Ronceverte 138 kV	AEP (100%)
b3085	Reconductor Kammer – George Washington 138 kV line (approx. 0.08 mile). Replace the wave trap at Kammer 138 kV	AEP (100%)
b3086.1	Rebuild New Liberty – Findlay 34 kV line Str's 1–37 (1.5 miles), utilizing 795 26/7 ACSR conductor	AEP (100%)
b3086.2	Rebuild New Liberty – North Baltimore 34 kV line Str's 1-11 (0.5 mile), utilizing 795 26/7 ACSR conductor	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3086.3	Rebuild West Melrose – Whirlpool 34 kV line Str’s 55–80 (1 mile), utilizing 795 26/7 ACSR conductor	AEP (100%)
b3086.4	North Findlay station: Install a 138 kV 3000A 63 kA line breaker and low side 34.5 kV 2000A 40kA breaker, high side 138 kV circuit switcher on T1	AEP (100%)
b3086.5	Ebersole station: Install second 90 MVA 138/69/34 kV transformer. Install two low side (69 kV) 2000A 40 kA breakers for T1 and T2	AEP (100%)
b3087.1	Construct a new greenfield station to the west (approx. 1.5 miles) of the existing Fords Branch Station in the new Kentucky Enterprise Industrial Park. This station will consist of six 3000A 40 kA 138 kV breakers laid out in a ring arrangement, two 30 MVA 138/34.5 kV transformers, and two 30 MVA 138/12 kV transformers. The existing Fords Branch Station will be retired	AEP (100%)
b3087.2	Construct approximately 5 miles of new double circuit 138 kV line in order to loop the new Kewanee station into the existing Beaver Creek – Cedar Creek 138 kV circuit	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3087.3	Remote end work will be required at Cedar Creek Station	AEP (100%)
b3087.4	Install 28.8 MVAR switching shunt at the new Fords Branch substation	AEP (100%)
b3095	Rebuild Lakin – Racine Tap 69 kV line section (9.2 miles) to 69 kV standards, utilizing 795 26/7 ACSR conductor	AEP (100%)
b3099	Install a 138 kV 3000A 40 kA circuit switcher on the high side of the existing 138/34.5 kV transformer No.5 at Holston station	AEP (100%)
b3100	Replace the 138 kV MOAB switcher “YY” with a new 138 kV circuit switcher on the high side of Chemical transformer No.6	AEP (100%)
b3101	Rebuild the 1/0 Cu. conductor sections (approx. 1.5 miles) of the Fort Robinson – Moccasin Gap 69 kV line section (approx. 5 miles) utilizing 556 ACSR conductor and upgrade existing relay trip limit (WN/WE: 63 MVA, line limited by remaining conductor sections)	AEP (100%)
b3102	Replace existing 50 MVA 138/69 kV transformers #1 and #2 (both 1957 vintage) at Fremont station with new 130 MVA 138/69 kV transformers	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3103.1	Install a 138/69 kV transformer at Royerton station. Install a 69 kV bus with one 69 kV breaker toward Bosman station. Rebuild the 138 kV portion into a ring bus configuration built for future breaker and a half with four 138 kV breakers		AEP (100%)
b3103.2	Rebuild the Bosman/Strawboard station in the clear across the road to move it out of the flood plain and bring it up to 69 kV standards		AEP (100%)
b3103.3	Retire 138 kV breaker L at Delaware station and re-purpose 138 kV breaker M for the Jay line		AEP (100%)
b3103.4	Retire all 34.5 kV equipment at Hartford City station. Re-purpose breaker M for the Bosman line 69 kV exit		AEP (100%)
b3103.5	Rebuild the 138 kV portion of Jay station as a 6 breaker, breaker and a half station re-using the existing breakers "A", "B", and "G." Rebuild the 69 kV portion of this station as a 6 breaker ring bus re-using the 2 existing 69 kV breakers. Install a new 138/69 kV transformer		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3103.6	Rebuild the 69 kV Hartford City – Armstrong Cork line but instead of terminating it into Armstrong Cork, terminate it into Jay station	AEP (100%)
b3103.7	Build a new 69 kV line from Armstrong Cork – Jay station	AEP (100%)
b3103.8	Rebuild the 34.5 kV Delaware – Bosman line as the 69 kV Royerton – Strawboard line. Retire the line section from Royerton to Delaware stations	AEP (100%)
b3104	Perform a sag study on the Polaris – Westerville 138 kV line (approx. 3.6 miles) to increase the summer emergency rating to 310 MVA	AEP (100%)
b3105	Rebuild the Delaware – Hyatt 138 kV line (approx. 4.3 miles) along with replacing conductors at both Hyatt and Delaware substations	AEP (100%)
b3106	Perform a sag study (6.8 miles of line) to increase the SE rating to 310 MVA. Note that results from the sag study could cover a wide range of outcomes, from no work required to a complete rebuild	AEP (100%)
b3109	Rebuild 5.2 miles Bethel – Sawmill 138 kV line including ADSS	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3112	Construct a single circuit 138 kV line (approx. 3.5 miles) from Amlin to Dublin using 1033 ACSR Curlew (296 MVA SN), convert Dublin station into a ring configuration, and re-terminating the Britton UG cable to Dublin station	AEP (100%)
b3116	Replace existing Mullens 138/46 kV 30 MVA transformer No.4 and associated protective equipment with a new 138/46 kV 90 MVA transformer and associated protective equipment	AEP (100%)
b3118.1	Expand existing Chadwick station and install a second 138/69 kV transformer at a new 138 kV bus tied into the Bellefonte – Grangston 138 kV circuit. The 69 kV bus will be reconfigured into a ring bus arrangement to tie the new transformer into the existing 69 kV via installation of four 3000A 63 kA 69 kV circuit breakers	AEP (100%)
b3118.2	Perform 138 kV remote end work at Grangston station	AEP (100%)
b3118.3	Perform 138 kV remote end work at Bellefonte station	AEP (100%)
b3118.4	Relocate the Chadwick – Leach 69 kV circuit within Chadwick station	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3118.5	Terminate the Bellefonte – Grangston 138 kV circuit to the Chadwick 138 kV bus	AEP (100%)
b3118.6	Chadwick – Tri-State #2 138 kV circuit will be reconfigured within the station to terminate into the newly established 138 kV bus #2 at Chadwick due to constructability aspects	AEP (100%)
b3118.7	Reconductor Chadwick – Leach and Chadwick – England Hill 69 kV lines with 795 ACSS conductor. Perform a LiDAR survey and a sag study to confirm that the reconducted circuits would maintain acceptable clearances	AEP (100%)
b3118.8	Replace the 20 kA 69 kV circuit breaker ‘F’ at South Neal station with a new 3000A 40 kA 69 kV circuit breaker. Replace line risers towards Leach station	AEP (100%)
b3118.9	Rebuild 336 ACSR portion of Leach – Miller S.S 69 kV line section (approx. 0.3 mile) with 795 ACSS conductor	AEP (100%)
b3118.10	Replace 69 kV line risers (towards Chadwick) at Leach station	AEP (100%)
b3119.1	Rebuild the Jay – Pennville 138 kV line as double circuit 138/69 kV. Build a new 9.8 mile single circuit 69 kV line from near Pennville station to North Portland station	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3119.2	Install three (3) 69 kV breakers to create the “U” string and add a low side breaker on the Jay transformer 2	AEP (100%)
b3119.3	Install two (2) 69 kV breakers at North Portland station to complete the ring and allow for the new line	AEP (100%)
b3129	At Conesville 138 kV station: Remove line leads to generating units, transfer plant AC service to existing station service feeds in Conesville 345/138 kV yard, and separate and reconfigure protection schemes	AEP (100%)
b3131	At East Lima and Haviland 138 kV stations, replace line relays and wavetraps on the East Lima – Haviland 138 kV facility	AEP (100%)
b3131.1	Rebuild approximately 12.3 miles of remaining Lark conductor on the double circuit line between Haviland and East Lima with 1033 54/7 ACSR conductor	AEP (100%)
b3132	Rebuild 3.11 miles of the LaPorte Junction – New Buffalo 69 kV line with 795 ACSR	AEP (100%)
b3139	Rebuild the Garden Creek – Whetstone 69 kV line (approx. 4 miles)	AEP (100%)
b3140	Rebuild the Whetstone – Knox Creek 69 kV line (approx. 3.1 miles)	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3141	Rebuild the Knox Creek – Coal Creek 69 kV line (approx. 2.9 miles)	AEP (100%)
b3148.1	Rebuild the 46 kV Bradley – Scarbro line to 96 kV standards using 795 ACSR to achieve a minimum rate of 120 MVA. Rebuild the new line adjacent to the existing one leaving the old line in service until the work is completed	AEP (100%)
b3148.2	Bradley remote end station work, replace 46 kV bus, install new 12 MVAR capacitor bank	AEP (100%)
b3148.3	Replace the existing switch at Sun substation with a 2-way SCADA-controlled motor-operated air-breaker switch	AEP (100%)
b3148.4	Remote end work and associated equipment at Scarbro station	AEP (100%)
b3148.5	Retire Mt. Hope station and transfer load to existing Sun station	AEP (100%)
b3149	Rebuild the 2.3 mile Decatur – South Decatur 69 kV line using 556 ACSR	AEP (100%)
b3150	Rebuild Ferguson 69/12 kV station in the clear as the 138/12 kV Bear station and connect it to an approx. 1 mile double circuit 138 kV extension from the Aviation – Ellison Road 138 kV line to remove the load from the 69 kV line	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3151.1	Rebuild the 30 mile Gateway – Wallen 34.5 kV circuit as the 27 mile Gateway – Wallen 69 kV line		AEP (100%)
b3151.2	Retire approx. 3 miles of the Columbia – Whitley 34.5 kV line		AEP (100%)
b3151.3	At Gateway station, remove all 34.5 kV equipment and install one (1) 69 kV circuit breaker for the new Whitley line entrance		AEP (100%)
b3151.4	Rebuild Whitley as a 69 kV station with two (2) lines and one (1) bus tie circuit breaker		AEP (100%)
b3151.5	Replace the Union 34.5 kV switch with a 69 kV switch structure		AEP (100%)
b3151.6	Replace the Eel River 34.5 kV switch with a 69 kV switch structure		AEP (100%)
b3151.7	Install a 69 kV Bobay switch at Woodland station		AEP (100%)
b3151.8	Replace the Carroll and Churubusco 34.5 kV stations with the 69 kV Snapper station. Snapper station will have two (2) line circuit breakers, one (1) bus tie circuit breaker and a 14.4 MVAR cap bank		AEP (100%)
b3151.9	Remove 34.5 kV circuit breaker “AD” at Wallen station		AEP (100%)
b3151.10	Rebuild the 2.5 miles of the Columbia – Gateway 69 kV line		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3151.11	Rebuild Columbia station in the clear as a 138/69 kV station with two (2) 138/69 kV transformers and 4-breaker ring buses on the high and low side. Station will reuse 69 kV breakers “J” & “K” and 138 kV breaker “D”	AEP (100%)
b3151.12	Rebuild the 13 miles of the Columbia – Richland 69 kV line	AEP (100%)
b3151.13	Rebuild the 0.5 mile Whitley – Columbia City No.1 line as 69 kV	AEP (100%)
b3151.14	Rebuild the 0.5 mile Whitley – Columbia City No.2 line as 69 kV	AEP (100%)
b3151.15	Rebuild the 0.6 mile double circuit section of the Rob Park – South Hicksville / Rob Park – Diebold Road as 69 kV	AEP (100%)
b3160.1	Construct an approx. 2.4 miles double circuit 138 kV extension using 1033 ACSR (Aluminum Conductor Steel Reinforced) to connect Lake Head to the 138 kV network	AEP (100%)
b3160.2	Retire the approx.2.5 miles 34.5 kV Niles – Simplicity Tap line	AEP (100%)
b3160.3	Retire the approx.4.6 miles Lakehead 69 kV Tap	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3160.4 Build new 138/69 kV drop down station to feed Lakehead with a 138 kV breaker, 138 kV switcher, 138/69 kV transformer and a 138 kV Motor-Operated Air Break		AEP (100%)
b3160.5 Rebuild the approx. 1.2 miles Buchanan South 69 kV Radial Tap using 795 ACSR (Aluminum Conductor Steel Reinforced)		AEP (100%)
b3160.6 Rebuild the approx. 8.4 miles 69 kV Pletcher – Buchanan Hydro line as the approx. 9 miles Pletcher – Buchanan South 69 kV line using 795 ACSR (Aluminum Conductor Steel Reinforced)		AEP (100%)
b3160.7 Install a PoP (Point-of-Presence) switch at Buchanan South station with 2 line MOABs (Motor-Operated Air Break)		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3208 Retire approximately 38 miles of the 44 mile Clifford – Scottsville 46 kV circuit. Build new 138 kV “in and out” to two new distribution stations to serve the load formerly served by Phoenix, Shipman, Schuyler (AEP), and Rockfish stations. Construct new 138 kV lines from Joshua Falls – Riverville (approx. 10 miles) and Riverville – Gladstone (approx. 5 miles). Install required station upgrades at Joshua Falls, Riverville and Gladstone stations to accommodate the new 138 kV circuits. Rebuild Reusen – Monroe 69 kV (approx. 4 miles)		AEP (100%)
b3209 Rebuild the 10.5 mile Berne – South Decatur 69 kV line using 556 ACSR		AEP (100%)
b3210 Replace approx. 0.7 mile Beatty – Galloway 69 kV line with 4000 kcmil XLPE cable		AEP (100%)
b3220 Install 14.4 MVAR capacitor bank at Whitewood 138 kV		AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3243	Replace risers at the Bass 34.5 kV station		AEP (100%)
b3244	Rebuild approximately 9 miles of the Robinson Park – Harlan 69 kV line		AEP (100%)
b3248	Install a low side 69 kV circuit breaker at the Albion 138/69 kV transformer #1		AEP (100%)
b3249	Rebuild the Chatfield – Melmore 138 kV line (approximately 10 miles) to 1033 ACSR conductor		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3253	Install a 3000A 40 kA 138 kV breaker on the high side of 138/69 kV transformer #5 at the Millbrook Park station. The transformer and associated bus protection will be upgraded accordingly	AEP (100%)
b3255	Upgrade 795 AAC risers at the Sand Hill 138 kV station towards Cricket Switch with 1272 AAC	AEP (100%)
b3256	Upgrade 500 MCM Cu risers at Tidd 138 kV station towards Wheeling Steel; replace with 1272 AAC conductor	AEP (100%)
b3257	Replace two spans of 336.4 26/7 ACSR on the Twin Branch – AM General #2 34.5 kV circuit	AEP (100%)
b3258	Install a 3000A 63 kA 138 kV breaker on the high side of 138/69 kV transformer #2 at Wagenhals station. The transformer and associated bus protection will be upgraded accordingly	AEP (100%)
b3259	At West Millersburg station, replace the 138 kV MOAB on the West Millersburg – Wooster 138 kV line with a 3000A 40 kA breaker	AEP (100%)
b3261	Upgrade circuit breaker “R1” at Tanners Creek 345 kV. Install Transient Recovery Voltage capacitor to increase the rating from 50 kA to 63 kA	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3269	At West New Philadelphia station, add a high side 138 kV breaker on the 138/69 kV Transformer #2 along with a 138 kV breaker on the line towards Newcomerstown	AEP (100%)
b3270	Install 1.7 miles of 795 ACSR 138 kV conductor along the other side of Dragoon Tap 138 kV line, which is currently double circuit tower with one position open. Additionally, install a second 138/34.5 kV transformer at Dragoon, install a high side circuit switcher on the current transformer at the Dragoon Station, and install two (2) 138 kV line breakers on the Dragoon – Jackson 138 kV and Dragoon – Twin Branch 138 kV lines	AEP (100%)
b3270.1	Replace Dragoon 34.5 kV breakers “B”, “C”, and “D” with 40 kA breakers	AEP (100%)
b3271	Install a 138 kV circuit breaker at Fremont station on the line towards Fremont Center and install a 9.6 MVAR 69 kV capacitor bank at Bloom Road station	AEP (100%)
b3272	Install two 138 kV circuit switchers on the high side of 138/34.5 kV Transformers #1 and #2 at Rockhill station	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3273.1	Rebuild and convert the existing 17.6 miles East Leipsic – New Liberty 34.5 kV circuit to 138 kV using 795 ACSR	AEP (100%)
b3273.2	Convert the existing 34.5 kV equipment to 138 kV and expand the existing McComb station to the north and east to allow for new equipment to be installed. Install two (2) new 138 kV box bays to allow for line positions and two (2) new 138/12 kV transformers	AEP (100%)
b3273.3	Expand the existing East Leipsic 138 kV station to the north to allow for another 138 kV line exit to be installed. The new line exit will involve installing a new 138 kV circuit breaker, disconnect switches and the addition of a new dead end structure along with the extension of the existing 138 kV bus work	AEP (100%)
b3273.4	Add one (1) 138 kV circuit breaker and disconnect switches in order to add an additional line position at New Liberty 138 kV station. Install line relaying potential devices and retire the 34.5 kV breaker 'F'	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3274	Rebuild approximately 8.9 miles of 69 kV line between Newcomerstown and Salt Fork Switch with 556 ACSR conductor	AEP (100%)
b3275.1	Rebuild the Kammer Station – Cresaps Switch 69 kV line, approximately 0.5 mile	AEP (100%)
b3275.2	Rebuild the Cresaps Switch – McElroy Station 69 kV, approximately 0.67 mile	AEP (100%)
b3275.3	Replace a single span of 4/0 ACSR from Moundsville - Natrium structure 93L to Carbon Tap switch 69 kV located between the Colombia Carbon and Conner Run stations. Remainder of the line is 336 ACSR	AEP (100%)
b3275.4	Rebuild from Colombia Carbon to Columbia Carbon Tap structure 93N 69 kV, approximately 0.72 mile. The remainder of the line between Colombia Carbon Tap structure 93N and Natrium station is 336 ACSR and will remain	AEP (100%)
b3275.5	Replace the Cresaps 69 kV 3-Way Phase-Over-Phase switch and structure with a new 1200A 3-Way switch and steel pole	AEP (100%)
b3275.6	Replace 477 MCM Alum bus and risers at McElroy 69 kV station	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3275.7 Replace Natrium 138 kV bus existing between CB-BT1 and along the 138 kV Main Bus #1 dropping to CBH1 from the 500 MCM conductors to a 1272 KCM AAC conductor. Replace the dead end clamp and strain insulators		AEP (100%)
b3276.1 Rebuild the 2/0 Copper section of the Lancaster – South Lancaster 69 kV line, approximately 2.9 miles of the 3.2 miles total length with 556 ACSR conductor. The remaining section has a 336 ACSR conductor		AEP (100%)
b3276.2 Rebuild the 1/0 Copper section of the line between Lancaster Junction and Ralston station 69 kV, approximately 2.3 miles of the 3.1 miles total length		AEP (100%)
b3276.3 Rebuild the 2/0 Copper portion of the line between East Lancaster Tap and Lancaster 69 kV, approximately 0.81 mile		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3278.1	Replace H.S. MOAB switches on the high side of the 138/69/34.5 kV transformer T1 with a H.S. circuit switcher at Saltville station	AEP (100%)
b3278.2	Replace existing 138/69/34.5 kV transformer T2 with a new 130 MVA 138/69/13 kV transformer at Meadowview station	AEP (100%)
b3279	Install a new 138 kV, 21.6 MVAR cap bank and circuit switcher at Apple Grove station	AEP (100%)
b3280	Rebuild the existing Cabin Creek – Kelly Creek 46 kV line (to Structure 366-44), approximately 4.4 miles. This section is double circuit with the existing Cabin Creek – London 46 kV line so a double circuit rebuild would be required	AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3281	Install 138 kV circuit switcher on the 138/69 kV Transformer #1 and 138/34.5 kV Transformer #2 at Dewey 138 kV substation. Install 138 kV 2000 A 40 kA breaker on Stanville line at Dewey 138 kV substation	AEP (100%)
b3282.1	Install a second 138 kV circuit utilizing 795 ACSR conductor on the open position of the existing double circuit towers from East Huntington – North Proctorville. Remove the existing 34.5 kV line from East Huntington – North Chesapeake and rebuild this section to 138 kV served from a new PoP switch off the new East Huntington – North Proctorville 138 kV #2 line	AEP (100%)
b3282.2	Install a 138 kV 40 kA circuit breaker at North Proctorville station	AEP (100%)
b3282.3	Install a 138 kV 40 kA circuit breaker at East Huntington station	AEP (100%)
b3282.4	Convert the existing 34/12 kV North Chesapeake to a 138/12 kV station	AEP (100%)
b3283	Replace the existing Inez 138/69 kV 50 MVA autotransformer with a 138/69 kV 90 MVA autotransformer	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3284	Rebuild approximately 5.44 miles of 69 kV line from Lock Lane to Point Pleasant		AEP (100%)
b3285	Replace the Meigs 69 kV 4/0 Cu station riser towards Gavin and rebuild the section of the Meigs – Hemlock 69 kV circuit from Meigs to approximately Structure #40 (about 4 miles) replacing the line conductor 4/0 ACSR with the line conductor size 556.5 ACSR		AEP (100%)
b3286	Reconductor the first 3 spans from Merrimac station to Structure 464-3 of 3/0 ACSR conductor utilizing 336 ACSR on the existing Merrimac – Midway 69 kV circuit		AEP (100%)
b3287	Upgrade 69 kV risers at Moundsville station towards George Washington		AEP (100%)
b3288.1	Construct approximately 2.75 miles Orinoco – Stone 69 kV transmission line in the clear between Orinoco station and Stone station		AEP (100%)
b3288.2	Construct approximately 3.25 miles Orinoco – New Camp 69 kV transmission line in the clear between Orinoco station and New Camp station		AEP (100%)

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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3288.3	At Stone substation, circuit breaker A to remain in place and be utilized as T1 low side breaker, circuit breaker B to remain in place and be utilized as new Hatfield (via Orinoco and New Camp) 69 kV line breaker. Add new 69 kV circuit breaker E for Coleman line exit	AEP (100%)
b3288.4	Reconfigure the New Camp 69 kV tap which includes access road improvements/installation, temporary wire and permanent wire work along with dead end structures installation	AEP (100%)
b3288.5	At New Camp substation, rebuild the 69 kV bus, add 69 kV MOAB W and replace the 69 kV ground switch Z1 with a 69 kV circuit switcher on the New Camp transformer	AEP (100%)
b3289.1	Install high-side circuit switcher on 138/69/12 kV T5 at Roanoke station	AEP (100%)
b3289.2	Install high-side circuit switcher on 138/69/34.5 kV T1 at Huntington Court station	AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3290.1	Build 9.4 miles of single circuit 69 kV line from Roselms to near East Ottoville 69 kV switch		AEP (100%)
b3290.2	Rebuild 7.5 miles of double circuit 69 kV line between East Ottoville switch and Kalida station (combining with the new Roselms to Kalida 69 kV circuit)		AEP (100%)
b3290.3	At Roselms switch, install a new three way 69 kV, 1200 A phase-over-phase switch, with sectionalizing capability		AEP (100%)
b3290.4	At Kalida 69 kV station, terminate the new line from Roselms switch. Move the CS XT2 from high side of T2 to the high side of T1. Remove existing T2 transformer		AEP (100%)
b3291	Replace the Russ St. 34.5 kV switch		AEP (100%)
b3292	Replace existing 69 kV capacitor bank at Stuart station with a 17.2 MVAR capacitor bank		AEP (100%)
b3293	Replace 2/0 Cu entrance span conductor on the South Upper Sandusky 69 kV line and 4/0 Cu Risers/Bus conductors on the Forest line at Upper Sandusky 69 kV station		AEP (100%)
b3294	Replace existing 69 kV disconnect switches for circuit breaker "C" at Walnut Avenue station		AEP (100%)

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Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3295	Grundy 34.5 kV: Install a 34.5 kV 9.6 MVAR cap bank		AEP (100%)
b3296	Rebuild the overloaded portion of the Concord – Whitaker 34.5 kV line (1.13 miles). Rebuild is double circuit and will utilize 795 ACSR conductor		AEP (100%)
b3297.1	Rebuild 4.23 miles of 69 kV line between Sawmill and Lazelle station, using 795 ACSR 26/7 conductor		AEP (100%)
b3297.2	Rebuild 1.94 miles of 69 kV line between Westerville and Genoa stations, using 795 ACSR 26/7 conductor		AEP (100%)
b3297.3	Replace risers and switchers at Lazelle, Westerville, and Genoa 69 kV stations. Upgrade associated relaying accordingly		AEP (100%)
b3298	Rebuild 0.8 mile of double circuit 69 kV line between South Toronto and West Toronto. Replace 219 ACSR with 556 ACSR		AEP (100%)
b3298.1	Replace the 69 kV breaker D at South Toronto station with 40 kA breaker		AEP (100%)
b3299	Rebuild 0.2 mile of the West End Fostoria - Lumberjack Switch 69 kV line with 556 ACSR (Dove) conductors. Replace jumpers on West End Fostoria line at Lumberjack Switch		AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3307	Rebuild Fleming station in the clear; Replace 138/69kV Fleming Transformer #1 with 138/69 kV 130 MVA transformer with high side 138 kV CB; Install a 5 breaker 69 kV ring bus on the low side of the transformer, replace 69 kV circuit switcher AA, replace 69/12 kV Transformer #3 with 69/12 kV 30 MVA transformer, replace 12 kV CB A and D; Retire existing Fleming substation	AEP (100%)
b3308	Reconductor and rebuild 1 span of T-line on the Fort Steuben – Sunset Blvd 69 kV branch with 556 ACSR	AEP (100%)
b3309	Rebuild 1.75 miles of the Greenlawn – East Tiffin line section of the Carothers – Greenlawn 69 kV circuit containing 133 ACSR conductor with 556 ACSR conductor. Upgrade relaying as required	AEP (100%)
b3310.1	Rebuild 10.5 miles of the Howard – Willard 69 kV line utilizing 556 ACSR conductor	AEP (100%)
b3310.2	Upgrade relaying at Howard 69 kV station	AEP (100%)
b3310.3	Upgrade relaying at Willard 69 kV station	AEP (100%)

AEP Service Corporation on behalf of its Affiliate Companies (AEP Indiana Michigan Transmission Company, AEP Kentucky Transmission Company, AEP Ohio Transmission Company, AEP West Virginia Transmission Company, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company) (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3312	Rebuild approximately 4 miles of existing 69 kV line between West Mount Vernon and Mount Vernon stations. Replace the existing 138/69 kV transformer at West Mount Vernon with a larger 90 MVA unit along with existing 69 kV breaker 'C'	AEP (100%)
b3313	Add 40 kA circuit breakers on the low and high side of the East Lima 138/69 kV transformer	AEP (100%)
b3314.1	Install a new 138/69 kV 130 MVA transformer and associated protection at Elliot station	AEP (100%)
b3314.2	Perform work at Strouds Run station to retire 138/69/13 kV 33.6 MVA Transformer #1 and install a dedicated 138/13 KV distribution transformer	AEP (100%)
b3315	Upgrade relaying on Mark Center – South Hicksville 69 kV line and replace Mark Center cap bank with a 7.7 MVAR unit	AEP (100%)

SCHEDULE 12 – APPENDIX A

(20) Virginia Electric and Power Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1698.7	Replace Loudoun 230 kV breaker '203052' with 63 kA rating	Dominion (100%)
b1696.1	Replace the Idylwood 230 kV '25112' breaker with 50 kA breaker	Dominion (100%)
b1696.2	Replace the Idylwood 230 kV '209712' breaker with 50 kA breaker	Dominion (100%)
b1793.1	Remove the Carolina 22 SPS to include relay logic changes, minor control wiring, relay resets and SCADA programming upon completion of project	Dominion (100%)
b2281	Additional Temporary SPS at Bath County	Dominion (100%)
b2350	Reconductor 211 feet of 545.5 ACAR conductor on 59 Line Elmont - Greenwood DP 115 kV to achieve a summer emergency rating of 906 amps or greater	Dominion (100%)
b2358	Install a 230 kV 54 MVAR capacitor bank on the 2016 line at Harmony Village Substation	Dominion (100%)
b2359	Wreck and rebuild approximately 1.3 miles of existing 230 kV line between Cochran Mill - X4-039 Switching Station	Dominion (100%)
b2360	Build a new 39 mile 230 kV transmission line from Dooms - Lexington on existing right-of-way	Dominion (100%)
b2361	Construct 230 kV OH line along existing Line #2035 corridor, approx. 2.4 miles from Idylwood - Dulles Toll Road (DTR) and 2.1 miles on new right-of-way along DTR to new Scott's Run Substation	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2368	Replace the Brambleton 230 kV breaker '209502' with 63 kA breaker	Dominion (100%)
b2369	Replace the Brambleton 230 kV breaker '213702' with 63 kA breaker	Dominion (100%)
b2370	Replace the Brambleton 230 kV breaker 'H302' with 63 kA breaker	Dominion (100%)
b2373	Build a 2nd Loudoun - Brambleton 500 kV line within the existing ROW. The Loudoun - Brambleton 230 kV line will be relocated as an underbuild on the new 500 kV line	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)
		DFAX Allocation: APS (20.07%) / Dominion (79.93%)
b2397	Replace the Beaumeade 230 kV breaker '2079T2116' with 63 kA	Dominion (100%)
b2398	Replace the Beaumeade 230 kV breaker '2079T2130' with 63 kA	Dominion (100%)
b2399	Replace the Beaumeade 230 kV breaker '208192' with 63 kA	Dominion (100%)
b2400	Replace the Beaumeade 230 kV breaker '209592' with 63 kA	Dominion (100%)
b2401	Replace the Beaumeade 230 kV breaker '211692' with 63 kA	Dominion (100%)
b2402	Replace the Beaumeade 230 kV breaker '227T2130' with 63 kA	Dominion (100%)

The Annual Revenue Requirement for all Virginia Electric and Power Company projects in this Section 20 shall be as specified in Attachment 7 to Appendix A of Attachment H-16A and under the procedures detailed in Attachment H-16B.

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2403	Replace the Beaumeade 230 kV breaker '274T2130' with 63 kA	Dominion (100%)
b2404	Replace the Beaumeade 230 kV breaker '227T2095' with 63 kA	Dominion (100%)
b2405	Replace the Pleasant view 230 kV breaker '203T274' with 63 kA	Dominion (100%)
b2443	Construct new underground 230 kV line from Glebe to Station C, rebuild Glebe Substation, construct 230 kV high side bus at Station C with option to install 800 MVA PAR	Dominion (97.11%) / ME (0.18%) / PEPCO (2.71%)
b2443.1	Replace the Idylwood 230 kV breaker '203512' with 50 kA	Dominion (100%)
b2443.2	Replace the Ox 230 kV breaker '206342' with 63 kA breaker	Dominion (100%)
b2443.3	Glebe – Station C PAR	DFAX Allocation: Dominion (22.57%) / PEPCO (77.43%)
b2443.6	Install a second 500/230 kV transformer at Possum Point substation and replace bus work and associated equipment as needed	Dominion (100%)
b2443.7	Replace 19 63 kA 230 kV breakers with 19 80 kA 230 kV breakers	Dominion (100%)
b2457	Replace 24 115 kV wood h-frames with 230 kV Dominion pole H-frame structures on the Clubhouse – Purdy 115 kV line	Dominion (100%)
b2458.1	Replace 12 wood H-frame structures with steel H-frame structures and install shunts on all conductor splices on Carolina – Woodland 115 kV	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2458.2	Upgrade all line switches and substation components at Carolina 115 kV to meet or exceed new conductor rating of 174 MVA	Dominion (100%)
b2458.3	Replace 14 wood H-frame structures on Carolina – Woodland 115 kV	Dominion (100%)
b2458.4	Replace 2.5 miles of static wire on Carolina – Woodland 115 kV	Dominion (100%)
b2458.5	Replace 4.5 miles of conductor between Carolina 115 kV and Jackson DP 115 kV with min. 300 MVA summer STE rating; Replace 8 wood H-frame structures located between Carolina and Jackson DP with steel H-frames	Dominion (100%)
b2460.1	Replace Hanover 230 kV substation line switches with 3000A switches	Dominion (100%)
b2460.2	Replace wave traps at Four River 230 kV and Elmont 230 kV substations with 3000A wave traps	Dominion (100%)
b2461	Wreck and rebuild existing Remington CT – Warrenton 230 kV (approx. 12 miles) as a double-circuit 230 kV line	Dominion (100%)
b2461.1	Construct a new 230 kV line approximately 6 miles from NOVEC's Wheeler Substation a new 230 kV switching station in Vint Hill area	Dominion (100%)
b2461.2	Convert NOVEC's Gainesville – Wheeler line (approximately 6 miles) to 230 kV	Dominion (100%)
b2461.3	Complete a Vint Hill – Wheeler – Loudoun 230 kV networked line	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2471	Replace Midlothian 500 kV breaker 563T576 and motor operated switches with 3 breaker 500 kV ring bus. Terminate Lines # 563 Carson – Midlothian, #576 Midlothian –North Anna, Transformer #2 in new ring	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: Dominion (100%)
b2504	Rebuild 115 kV Line #32 from Halifax-South Boston (6 miles) for min. of 240 MVA and transfer Welco tap to Line #32. Moving Welco to Line #32 requires disabling auto-sectionalizing scheme	Dominion (100%)
b2505	Install structures in river to remove the 115 kV #65 line (Whitestone-Harmony Village 115 kV) from bridge and improve reliability of the line	Dominion (100%)
b2542	Replace the Loudoun 500 kV 'H2T502' breaker with a 50 kA breaker	Dominion (100%)
b2543	Replace the Loudoun 500 kV 'H2T584' breaker with a 50 kA breaker	Dominion (100%)
b2565	Reconductor wave trap at Carver Substation with a 2000A wave trap	Dominion (100%)
b2566	Reconductor 1.14 miles of existing line between ACCA and Hermitage and upgrade associated terminal equipment	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2582	Rebuild the Elmont – Cunningham 500 kV line	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: BGE (6.10%) / Dominion (84.49%) / PEPCO (9.41%)
b2583	Install 500 kV breaker at Ox Substation to remove Ox Tx#1 from H1T561 breaker failure outage	Dominion (100%)
b2584	Relocate the Bremono load (transformer #5) to #2028 (Bremono-Charlottesville 230 kV) line and Cartersville distribution station to #2027 (Bremono-Midlothian 230 kV) line	Dominion (100%)
b2585	Reconductor 7.63 miles of existing line between Cranes and Stafford, upgrade associated line switches at Stafford	PEPCO (100%)
b2620	Wreck and rebuild the Chesapeake – Deep Creek – Bowers Hill – Hodges Ferry 115 kV line; minimum rating 239 MVA normal/emergency, 275 MVA load dump rating	Dominion (100%)

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Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2622	Rebuild Line #47 between Kings Dominion 115 kV and Fredericksburg 115 kV to current standards with summer emergency rating of 353 MVA at 115 kV	Dominion (100%)
b2623	Rebuild Line #4 between Bremo and Structure 8474 (4.5 miles) to current standards with a summer emergency rating of 261 MVA at 115 kV	Dominion (100%)
b2624	Rebuild 115 kV Lines #18 and #145 between Possum Point Generating Station and NOVEC's Smoketown DP (approx. 8.35 miles) to current 230 kV standards with a normal continuous summer rating of 524 MVA at 115 kV	Dominion (100%)
b2625	Rebuild 115 kV Line #48 between Thole Street and Structure 48/71 to current standard. The remaining line to Sewells Point is 2007 vintage. Rebuild 115 kV Line #107 line, Sewells Point to Oakwood, between structure 107/17 and 107/56 to current standard	Dominion (100%)
b2626	Rebuild 115 kV Line #34 between Skiffes Creek and Yorktown and the double circuit portion of 115 kV Line #61 to current standards with a summer emergency rating of 353 MVA at 115 kV	Dominion (100%)
b2627	Rebuild 115 kV Line #1 between Crewe 115 kV and Fort Pickett DP 115 kV (12.2 miles) to current standards with summer emergency rating of 261 MVA at 115 kV	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2628	Rebuild 115 kV Line #82 Everetts – Voice of America (20.8 miles) to current standards with a summer emergency rating of 261 MVA at 115 kV	Dominion (100%)
b2629	Rebuild the 115 kV Lines #27 and #67 lines from Greenwich 115 kV to Burton 115 kV Structure 27/280 to current standard with a summer emergency rating of 262 MVA at 115 kV	Dominion (100%)
b2630	Install circuit switchers on Gravel Neck Power Station GSU units #4 and #5. Install two 230 kV CCVT's on Lines #2407 and #2408 for loss of source sensing	Dominion (100%)
b2636	Install three 230 kV bus breakers and 230 kV, 100 MVAR Variable Shunt Reactor at Dahlgren to provide line protection during maintenance, remove the operational hazard and provide voltage reduction during light load conditions	Dominion (100%)
b2647	Rebuild Boynton Plank Rd – Kerr Dam 115 kV Line #38 (8.3 miles) to current standards with summer emergency rating of 353 MVA at 115 kV	Dominion (100%)
b2648	Rebuild Carolina – Kerr Dam 115 kV Line #90 (38.7 miles) to current standards with summer emergency rating of 353 MVA 115 kV	Dominion (100%)
b2649	Rebuild Clubhouse – Carolina 115 kV Line #130 (17.8 miles) to current standards with summer emergency rating of 353 MVA at 115 kV	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2649.1	Rebuild of 1.7 mile tap to Metcalf and Belfield DP (MEC) due to poor condition. The existing summer rating of the tap is 48 MVA and existing conductor is 4/0 ACSR on wood H-frames. The proposed new rating is 176 MVA using 636 ACSR conductor	Dominion (100%)
b2649.2	Rebuild of 4.1 mile tap to Brinks DP (MEC) due to wood poles built in 1962. The existing summer rating of the tap is 48 MVA and existing conductor is 4/0 ACSR and 393.6 ACSR on wood H-frames. The proposed new rating is 176 MVA using 636 ACSR conductor	Dominion (100%)
b2650	Rebuild Twittys Creek – Pamplin 115 kV Line #154 (17.8 miles) to current standards with summer emergency rating of 353 MVA at 115 kV	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2651	Rebuild Buggs Island – Plywood 115 kV Line #127 (25.8 miles) to current standards with summer emergency rating of 353 MVA at 115 kV. The line should be rebuilt for 230 kV and operated at 115 kV	Dominion (100%)
b2652	Rebuild Greatbridge – Hickory 115 kV Line #16 and Greatbridge – Chesapeake E.C. to current standard with summer emergency rating of 353 MVA at 115 kV	Dominion (100%)
b2653.1	Build 20 mile 115 kV line from Pantego to Trowbridge with summer emergency rating of 353 MVA	Dominion (100%)
b2653.2	Install 115 kV four-breaker ring bus at Pantego	Dominion (100%)
b2653.3	Install 115 kV breaker at Trowbridge	Dominion (100%)
b2654.1	Build 15 mile 115 kV line from Scotland Neck to S Justice Branch with summer emergency rating of 353 MVA. New line will be routed to allow HEMC to convert Dawson's Crossroads RP from 34.5 kV to 115 kV	Dominion (100%)
b2654.2	Install 115 kV three-breaker ring bus at S Justice Branch	Dominion (100%)
b2654.3	Install 115 kV breaker at Scotland Neck	Dominion (100%)
b2654.3	Install a 2nd 224 MVA 230/115 kV transformer at Hathaway	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2665	Rebuild the Cunningham – Dooms 500 kV line	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (72.18%) / PEPCO (27.82%)</p>
b2686	Pratts Area Improvement	Dominion (100%)
b2686.1	Build a 230 kV line from Remington Substation to Gordonsville Substation utilizing existing ROW	Dominion (100%)
b2686.2	Install a 3rd 230/115 kV transformer at Gordonsville Substation	Dominion (100%)
b2686.3	Upgrade Line 2088 between Gordonsville Substation and Louisa CT Station	Dominion (100%)
b2686.4	Replace the Remington CT 230 kV breaker “2114T2155” with a 63 kA breaker	Dominion (100%)
b2686.11	Upgrading sections of the Gordonsville – Somerset 115 kV circuit	Dominion (100%)
b2686.12	Upgrading sections of the Somerset – Doubleday 115 kV circuit	Dominion (100%)
b2686.13	Upgrading sections of the Orange – Somerset 115 kV circuit	Dominion (100%)
b2686.14	Upgrading sections of the Mitchell – Mt. Run 115 kV circuit	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2717.1	De-energize Davis – Rosslyn #179 and #180 69 kV lines		Dominion (100%)
b2717.2	Remove splicing and stop joints in manholes		Dominion (100%)
b2717.3	Evacuate and dispose of insulating fluid from various reservoirs and cables		Dominion (100%)
b2717.4	Remove all cable along the approx. 2.5 mile route, swab and cap-off conduits for future use, leave existing communication fiber in place		Dominion (100%)
b2719.1	Expand Perth substation and add a 115 kV four breaker ring		Dominion (100%)
b2719.2	Extend the Hickory Grove DP tap 0.28 miles to Perth and terminate it at Perth		Dominion (100%)
b2719.3	Split Line #31 at Perth and terminate it into the new ring bus with 2 breakers separating each of the line terminals to prevent a breaker failure from taking out both 115 kV lines		Dominion (100%)
b2720	Replace the Loudoun 500 kV 'H1T569' breakers with 50 kA breaker		Dominion (100%)
b2729	Optimal Capacitors Configuration: New 175 MVAR capacitor at Brambleton, new 175 MVAR capacitor at Ashburn, new 300 MVAR capacitor at Shelhorn, new 150 MVAR capacitor at Liberty		AEC (1.96%) / BGE (14.37%) / Dominion (35.11%) / DPL (3.76%) / ECP** (0.29%) / HTP*** (0.34%) / JCPL (3.31%) / ME (2.51%) / NEPTUNE* (0.63%) / PECO (6.26%) / PEPCO (20.23%) / PPL (3.94%) / PSEG (7.29%)

* Neptune Regional Transmission System, LLC

** East Coast Power, L.L.C.

***Hudson Transmission Partners, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2744	Rebuild the Carson – Rogers Rd 500 kV circuit	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: Dominion (94.47%) / EKPC (0.22%) / PEPCO (5.31%)
b2745	Rebuild 21.32 miles of existing line between Chesterfield – Lakeside 230 kV	Dominion (100%)
b2746.1	Rebuild Line #137 Ridge Rd – Kerr Dam 115 kV, 8.0 miles, for 346 MVA summer emergency rating	Dominion (100%)
b2746.2	Rebuild Line #1009 Ridge Rd – Chase City 115 kV, 9.5 miles, for 346 MVA summer emergency rating	Dominion (100%)
b2746.3	Install a second 4.8 MVAR capacitor bank on the 13.8 kV bus of each transformer at Ridge Rd	Dominion (100%)
b2747	Install a Motor Operated Switch and SCADA control between Dominion's Gordonsville 115 kV bus and FirstEnergy's 115 kV line	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2757	Install a +/-125 MVar Statcom at Colington 230 kV	Dominion (100%)
b2758	Rebuild Line #549 Dooms – Valley 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: Dominion (100%)
b2759	Rebuild Line #550 Mt. Storm – Valley 500 kV	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: APS (87.50%) / ATSI (0.37%) / DL (0.19%) / Dominion (1.04%) / EKPC (10.90%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2800	The 7 mile section from Dozier to Thompsons Corner of line #120 will be rebuilt to current standards using 768.2 ACSS conductor with a summer emergency rating of 346 MVA at 115 kV. Line is proposed to be rebuilt on single circuit steel monopole structure	Dominion (100%)
b2801	Lines #76 and #79 will be rebuilt to current standard using 768.2 ACSS conductor with a summer emergency rating of 346 MVA at 115 kV. Proposed structure for rebuild is double circuit steel monopole structure	Dominion (100%)
b2802	Rebuild Line #171 from Chase City – Boydton Plank Road tap by removing end-of-life facilities and installing 9.4 miles of new conductor. The conductor used will be at current standards with a summer emergency rating of 393 MVA at 115 kV	Dominion (100%)
b2815	Build a new Pinewood 115 kV switching station at the tap serving North Doswell DP with a 115 kV four breaker ring bus	Dominion (100%)
b2842	Update the nameplate for Mount Storm 500 kV "57272" to be 50 kA breaker	Dominion (100%)
b2843	Replace the Mount Storm 500 kV "G2TY" with 50 kA breaker	Dominion (100%)
b2844	Replace the Mount Storm 500 kV "G2TZ" with 50 kA breaker	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2845	Update the nameplate for Mount Storm 500 kV "G3TSX1" to be 50 kA breaker	Dominion (100%)
b2846	Update the nameplate for Mount Storm 500 kV "SX172" to be 50 kA breaker	Dominion (100%)
b2847	Update the nameplate for Mount Storm 500 kV "Y72" to be 50 kA breaker	Dominion (100%)
b2848	Replace the Mount Storm 500 kV "Z72" with 50 kA breaker	Dominion (100%)
b2871	Rebuild 230 kV line #247 from Swamp to Suffolk (31 miles) to current standards with a summer emergency rating of 1047 MVA at 230 kV	Dominion (100%)
b2876	Rebuild line #101 from Mackeys – Creswell 115 kV, 14 miles, with double circuit structures. Install one circuit with provisions for a second circuit. The conductor used will be at current standards with a summer emergency rating of 262 MVA at 115 kV	Dominion (100%)
b2877	Rebuild line #112 from Fudge Hollow – Lowmoor 138 kV (5.16 miles) to current standards with a summer emergency rating of 314 MVA at 138 kV	Dominion (100%)
b2899	Rebuild 230 kV line #231 to current standard with a summer emergency rating of 1046 MVA. Proposed conductor is 2-636 ACSR	Dominion (100%)
b2900	Build a new 230/115 kV switching station connecting to 230 kV network line #2014 (Earleys – Everetts). Provide a 115 kV source from the new station to serve Windsor DP	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2922	Rebuild 8 of 11 miles of 230 kV lines #211 and #228 to current standard with a summer emergency rating of 1046 MVA for rebuilt section. Proposed conductor is 2-636 ACSR	Dominion (100%)
b2928	Rebuild four structures of 500 kV line #567 from Chickahominy to Surry using galvanized steel and replace the river crossing conductor with 3-1534 ACSR. This will increase the line #567 line rating from 1954 MVA to 2600 MVA	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPSCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: Dominion (100%)
b2929	Rebuild 230 kV line #2144 from Winfall to Swamp (4.3 miles) to current standards with a standard conductor (bundled 636 ACSR) having a summer emergency rating of 1047 MVA at 230 kV	Dominion (100%)
b2960	Replace fixed series capacitors on 500 kV Line #547 at Lexington and on 500 kV Line #548 at Valley	See sub-IDs for cost allocations

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2960.1	Replace fixed series capacitors on 500 kV Line #547 at Lexington	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: DEOK (1.39%) / Dominion (21.26%) / EKPC (0.82%) / PEPCO (76.53%)</p>

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2960.2	Replace fixed series capacitors on 500 kV Line #548 at Valley	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: DEOK (20.11%) / Dominion (67.22%) / EKPC (9.17%) / PEPCO (3.50%)
b2961	Rebuild approximately 3 miles of Line #205 & Line #2003 from Chesterfield to Locks & Poe respectively	Dominion (100%)
b2962	Split Line #227 (Brambleton – Beaumeade 230 kV) and terminate into existing Belmont substation	Dominion (100%)
b2962.1	Replace the Beaumeade 230 kV breaker “274T2081” with 63 kA breaker	Dominion (100%)
b2962.2	Replace the NIVO 230 kV breaker “2116T2130” with 63 kA breaker	Dominion (100%)
b2963	Reconductor the Woodbridge to Occoquan 230 kV line segment of Line #2001 with 1047 MVA conductor and replace line terminal equipment at Possum Point, Woodbridge, and Occoquan	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2978	Install 2-125 MVAR STATCOMs at Rawlings and 1-125 MVAR STATCOM at Clover 500 kV substations	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b2980	Rebuild 115 kV Line #43 between Staunton and Harrisonburg (22.8 miles) to current standards with a summer emergency rating of 261 MVA at 115 kV	Dominion (100%)
b2981	Rebuild 115 kV Line #29 segment between Fredericksburg and Aquia Harbor to current 230 kV standards (operating at 115 kV) utilizing steel H-frame structures with 2-636 ACSR to provide a normal continuous summer rating of 524 MVA at 115 kV (1047 MVA at 230 kV)	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2989	Install a second 230/115 kV Transformer (224 MVA) approximately 1 mile north of Bremono and tie 230 kV Line #2028 (Bremono – Charlottesville) and 115 kV Line #91 (Bremono - Sherwood) together. A three breaker 230 kV ring bus will split Line #2028 into two lines and Line #91 will also be split into two lines with a new three breaker 115 kV ring bus. Install a temporary 230/115 kV transformer at Bremono substation for the interim until the new substation is complete	Dominion (100%)
b2990	Chesterfield to Basin 230 kV line – Replace 0.14 miles of 1109 ACAR with a conductor which will increase the line rating to approximately 706 MVA	Dominion (100%)
b2991	Chaparral to Locks 230 kV line – Replace breaker lead	Dominion (100%)
b2994	Acquire land and build a new switching station (Skippers) at the tap serving Brink DP with a 115 kV four breaker ring to split Line #130 and terminate the end points	Dominion (100%)
b3018	Rebuild Line #49 between New Road and Middleburg substations with single circuit steel structures to current 115 kV standards with a minimum summer emergency rating of 261 MVA	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3019	Rebuild 500 kV Line #552 Bristers to Chancellor – 21.6 miles long	Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%) DFAX Allocation: Dominion (93.48%) / PEPCO (6.52%)
b3019.1	Update the nameplate for Morrisville 500 kV breaker “H1T594” to be 50 kA	Dominion (100%)
b3019.2	Update the nameplate for Morrisville 500 kV breaker “H1T545” to be 50 kA	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3020	Rebuild 500 kV Line #574 Ladysmith to Elmont – 26.2 miles long	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: APS (16.36%) / DEOK (11.61%) / Dominion (51.27%) / EKPC (5.30%) / PEPCO (15.46%)</p>
b3021	Rebuild 500 kV Line #581 Ladysmith to Chancellor – 15.2 miles long	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (100%)</p>
b3026	Reconductor Line #274 (Pleasant View – Ashburn – Beaumeade 230 kV) with a minimum rating of 1200 MVA. Also upgrade terminal equipment	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3027.1	Add a 2nd 500/230 kV 840 MVA transformer at Dominion's Ladysmith substation	Dominion (100%)
b3027.2	Reconductor 230 kV Line #2089 between Ladysmith and Ladysmith CT substations to increase the line rating from 1047 MVA to 1225 MVA	Dominion (100%)
b3027.3	Replace the Ladysmith 500 kV breaker "H1T581" with 50 kA breaker	Dominion (100%)
b3027.4	Update the nameplate for Ladysmith 500 kV breaker "H1T575" to be 50 kA breaker	Dominion (100%)
b3027.5	Update the nameplate for Ladysmith 500 kV breaker "568T574" (will be renumbered as "H2T568") to be 50 kA breaker	Dominion (100%)
b3055	Install spare 230/69 kV transformer at Davis substation	Dominion (100%)
b3056	Partial rebuild 230 kV Line #2113 Waller to Lightfoot	Dominion (100%)
b3057	Rebuild 230 kV Lines #2154 and #19 Waller to Skiffes Creek	Dominion (100%)
b3058	Partial rebuild of 230 kV Lines #265, #200 and #2051	Dominion (100%)
b3059	Rebuild 230 kV Line #2173 Loudoun to Elklick	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3060	Rebuild 4.6 mile Elklick – Bull Run 230 kV Line #295 and the portion (3.85 miles) of the Clifton – Walney 230 kV Line #265 which shares structures with Line #295	Dominion (100%)
b3088	Rebuild 4.75 mile section of Line #26 between Lexington and Rockbridge with a minimum summer emergency rating of 261 MVA	Dominion (100%)
b3089	Rebuild 230 kV Line #224 between Lanexa and Northern Neck utilizing double circuit structures to current 230 kV standards. Only one circuit is to be installed on the structures with this project with a minimum summer emergency rating of 1047 MVA	Dominion (100%)
b3090	Convert the overhead portion (approx. 1500 feet) of 230 kV Lines #248 & #2023 to underground and convert Glebe substation to gas insulated substation	Dominion (100%)
b3096	Rebuild 230 kV line No.2063 (Clifton – Ox) and part of 230 kV line No.2164 (Clifton – Keene Mill) with double circuit steel structures using double circuit conductor at current 230 kV northern Virginia standards with a minimum rating of 1200 MVA	Dominion (100%)
b3097	Rebuild 4 miles of 115 kV Line #86 between Chesterfield and Centralia to current standards with a minimum summer emergency rating of 393 MVA	Dominion (100%)
b3098	Rebuild 9.8 miles of 115 kV Line #141 between Balcony Falls and Skimmer and 3.8 miles of 115 kV Line #28 between Balcony Falls and Cushaw to current standards with a minimum rating of 261 MVA	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3098.1	Rebuild Balcony Falls 115 kV substation	Dominion (100%)
b3110.1	Rebuild Line #2008 between Loudoun to Dulles Junction using single circuit conductor at current 230 kV northern Virginia standards with minimum summer ratings of 1200 MVA. Cut and loop Line #265 (Clifton – Sully) into Bull Run substation. Add three (3) 230 kV breakers at Bull Run to accommodate the new line and upgrade the substation	Dominion (100%)
b3110.2	Replace the Bull Run 230 kV breakers “200T244” and “200T295” with 50 kA breakers	Dominion (100%)
b3110.3	Replace the Clifton 230 kV breakers “201182” and “XT2011” with 63 kA breakers	Dominion (100%)
b3113	Rebuild approximately 1 mile of 115 kV Lines #72 and #53 to current standards with a minimum summer emergency rating of 393 MVA. The resulting summer emergency rating of Line #72 segment from Brown Boveri to Bellwood is 180 MVA. There is no change to Line #53 ratings	Dominion (100%)
b3114	Rebuild the 18.6 mile section of 115 kV Line #81 which includes 1.7 miles of double circuit Line #81 and 230 kV Line #2056. This segment of Line #81 will be rebuilt to current standards with a minimum rating of 261 MVA. Line #2056 rating will not change	Dominion (100%)
b3121	Rebuild Clubhouse – Lakeview 230 kV Line #254 with single-circuit wood pole equivalent structures at the current 230 kV standard with a minimum rating of 1047 MVA	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b3122	Rebuild Hathaway – Rocky Mount (Duke Energy Progress) 230 kV Line #2181 and Line #2058 with double circuit steel structures using double circuit conductor at current 230 kV standards with a minimum rating of 1047 MVA		Dominion (100%)
b3161.1	Split Chesterfield-Plaza 115 kV Line No. 72 by rebuilding the Brown Boveri tap line as double circuit loop in-and-out of the Brown Boveri Breaker station		Dominion (100%)
b3161.2	Install a 115 kV breaker at the Brown Boveri Breaker station. Site expansion is required to accommodate the new layout		Dominion (100%)
b3162	Acquire land and build a new 230 kV switching station (Stevensburg) with a 224 MVA, 230/115 kV transformer. Gordonsville-Remington 230 kV Line No. 2199 will be cut and connected to the new station. Remington-Mt. Run 115 kV Line No. 70 and Mt. Run-Oak Green 115 kV Line No. 2 will also be cut and connected to the new station		Dominion (100%)
b3211	Rebuild the 1.3 mile section of 500 kV Line No. 569 (Loudoun – Morrisville) with single-circuit 500 kV structures at the current 500 kV standard. This will increase the rating of the line to 3424 MVA		Dominion (100%)
b3213	Install 2nd Chickahominy 500/230 kV transformer		Dominion (100%)
b3213.1	Replace the eight (8) Chickahominy 230 kV breakers with 63 kA breakers: “SC122”, “205022”, “209122”, 210222-2”, “28722”, “H222”, “21922” and “287T2129”		Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3223.1	Install a second 230 kV circuit with a minimum summer emergency rating of 1047 MVA between Lanexa and Northern Next substations. The second circuit will utilize the vacant arms on the double-circuit structures that are being installed on Line #224 (Lanexa – Northern Next) as part of the End-of-Life rebuild project (b3089)	Dominion (100%)
b3223.2	Expand the Northern Neck terminal from a 230 kV, 4-breaker ring bus to a 6-breaker ring bus	Dominion (100%)
b3223.3	Expand the Lanexa terminal from a 6-breaker ring bus to a breaker-and-a-half arrangement	Dominion (100%)
b3246.1	Convert 115 kV Line #172 Liberty – Lomar and 115 kV Line #197 Cannon Branch – Lomar to 230 kV to provide a new 230 kV source between Cannon Branch and Liberty. The majority of 115 kV Line #172 Liberty – Lomar and Line #197 Cannon Branch – Lomar is adequate for 230 kV operation. Rebuild 0.36 mile segment between the Lomar and Cannon Branch junction. Lines will have a summer rating of 1047MVA/1047MVA (SN/SE)	Dominion (100%)
b3246.2	Perform substation work for the 115 kV to 230 kV line conversion at Liberty, Wellington, Godwin, Pioneer, Sandlot and Cannon Branch	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3246.3	Extend 230 kV Line #2011 Cannon Branch – Clifton to Winters Branch by removing the existing Line #2011 termination at Cannon Branch and extending the line to Brickyard creating 230 kV Line #2011 Brickyard - Clifton. Extend a new 230 kV line between Brickyard and Winters Branch with a summer rating of 1572MVA/1572MVA (SN/SE)	Dominion (100%)
b3246.4	Perform substation work at Cannon Branch, Brickyard and Winters Branch for the 230 kV Line #2011 Cannon Branch – Clifton extension	Dominion (100%)
b3246.5	Replace the Gainesville 230 kV 40 kA breaker “216192” with a 50 kA breaker	Dominion (100%)
b3247	Replace 13 towers with galvanized steel towers on Doubs – Goose Creek 500 kV. Reconductor 3 mile section with three (3) 1351.5 ACSR 45/7. Upgrade line terminal equipment at Goose Creek substation to support the 500 kV line rebuild	<p>Load-Ratio Share Allocation: AEC (1.67%) / AEP (13.94%) / APS (5.64%) / ATSI (8.02%) / BGE (4.12%) / ComEd (13.46%) / Dayton (2.12%) / DEOK (3.37%) / DL (1.76%) / DPL (2.55%) / Dominion (12.97%) / EKPC (1.81%) / JCPL (3.92%) / ME (1.95%) / NEPTUNE* (0.24%) / OVEC (0.07%) / PECO (5.39%) / PENELEC (1.84%) / PEPCO (3.71%) / PPL (4.78%) / PSEG (6.40%) / RE (0.27%)</p> <p>DFAX Allocation: Dominion (100%)</p>

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3262	Install a second 115 kV 33.67 MVAR cap bank at Harrisonburg substation along with a 115 kV breaker	Dominion (100%)
b3263	Cut existing 115 kV Line #5 between Bremono and Cunningham substations and loop in and out of Fork Union substation	Dominion (100%)
b3264	Install 40 kA breaker at Stuarts Draft 115 kV station and sectionalize the Doom to Dupont-Waynesboro 115 kV Line #117 into two 115 kV lines	Dominion (100%)
b3268	Build a switching station at the junction of 115 kV line #39 and 115 kV line #91 with a 115 kV capacitor bank. The switching station will be built with 230 kV structures but will operate at 115 kV	Dominion (100%)
b3300	Reconductor 230 kV Line #2172 from Brambleton to Evergreen Mills along with upgrading the line leads at Brambleton to achieve a summer emergency rating of 1574 MVA	Dominion (100%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b3301	Reconductor 230 kV Line #2210 from Brambleton to Evergreen Mills along with upgrading the line leads at Brambleton to achieve a summer emergency rating of 1574 MVA		Dominion (100%)
b3302	Reconductor 230 kV Line #2213 from Cabin Run to Yardley Ridge along with upgrading the line leads at Yardley to achieve a summer emergency rating of 1574 MVA		Dominion (100%)
b3303.1	Extend a new single circuit 230 kV Line #9250 from Farmwell substation to Nimbus substation		Dominion (100%)
b3303.2	Remove Beaumeade 230 kV Line #2152 line switch		Dominion (100%)
b3304	Midlothian area improvements for 300 MW load drop relief		Dominion (100%)
b3304.1	Cut 230 kV Line #2066 at Trabue junction		Dominion (100%)
b3304.2	Reconductor idle 230 kV Line #242 (radial from Midlothian to Trabue junction) to allow a minimum summer rating of 1047 MVA and connect to the section of 230 kV Line #2066 between Trabue junction and Winterpock, re-number 230 kV Line #242 structures to Line #2066		Dominion (100%)
b3304.3	Use the section of idle 115 kV Line #153, between Midlothian and Trabue junction to connect to the section of (former) 230 kV Line #2066 between Trabue junction and Trabue to create new Midlothian – Trabue lines with new line numbers #2218 and #2219		Dominion (100%)
b3304.4	Create new line terminations at Midlothian for the new Midlothian – Trabue 230 kV lines		Dominion (100%)

SCHEDULE 12 – APPENDIX A

(23) American Transmission Systems, Inc.

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2019.2 Terminate Burger – Longview 138 kV, Burger – Brookside 138 kV, Burger – Cloverdale 138 kV #1, and Burger – Harmon 138 kV #2 into Holloway substation; Loop Burger – Harmon #1 138 kV and Burger – Knox 138 kV into Holloway substation		ATSI (100%)
b2019.3 Reconfigure Burger 138 kV substation to accommodate two 138 kV line exits and generation facilities		ATSI (100%)
b2019.4 Remove both Burger 138 kV substations (East and West 138 kV buses) and all 138 kV lines on the property		ATSI (100%)
b2019.5 Terminate and de-energize the 138 kV lines on the last structure before the Burger Plant property		ATSI (100%)
b2122.1 Reconductor the ATSI portion of the Howard – Brookside 138 kV line		ATSI (100%)
b2122.2 Upgrade terminal equipment at Brookside on the Howard – Brookside 138 kV line to achieve ratings of 252/291 (SN/SE)		ATSI (100%)
b2188 Revise the reclosing for the Bluebell 138 kV breaker '301-B-94'		ATSI (100%)
b2192 Replace the Longview 138 kV breaker '651-B-32'		ATSI (100%)
b2193 Replace the Lowellville 138 kV breaker '1-10-B 4'		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2195	Replace the Roberts 138 kV breaker '601-B-60'	ATSI (100%)
b2196	Replace the Sammis 138 kV breaker '780-B-76'	ATSI (100%)
b2262	New Castle Generating Station – Relocate 138 kV, 69 kV, and 23 kV controls from the generating station building to new control building	ATSI (100%)
b2263	Niles Generation Station – Relocate 138 kV and 23 kV controls from the generation station building to new control building	ATSI (100%)
b2265	Ashtabula Generating Station – Relocate 138 kV controls from the generating station building to new control building	ATSI (100%)
b2284	Increase the design operating temperature on the Cloverdale – Barberton 138 kV line	ATSI (100%)
b2285	Increase the design operating temperature on the Cloverdale – Star 138 kV line	ATSI (100%)
b2301	Reconductor 0.7 miles of 605 ACSR conductor on the Beaver Black River 138 kV line	ATSI (100%)
b2301.1	Wave trap and line drop replacement at Beaver (312/380 MVA SN/SE)	ATSI (100%)
b2349	Replace the East Springfield 138 kV breaker 211-B-63 with 40 kA	ATSI (100%)
b2367	Replace the East Akron 138 kV breaker 36-B-46 with 40 kA	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2413	Replace a relay at McDowell 138 kV substation		ATSI (100%)
b2434	Build a new London – Tangy 138 kV line		ATSI (100%)
b2435	Build a new East Springfield – London #2 138 kV line		ATSI (100%)
b2459	Install +260/-150 MVAR SVC at Lake Shore		ATSI (100%)
b2492	Replace the Beaver 138 kV breaker '426-B-2' with 63 kA breaker		ATSI (100%)
b2493	Replace the Hoytdale 138 kV breaker '83-B-30' with 63 kA breaker		ATSI (100%)
b2557	At Avon substation, replace the existing 345/138 kV 448 MVA #92 transformer with a 560 MVA unit		ATSI (100%)
b2558	Close normally open switch A 13404 to create a Richland J Bus – Richland K Bus 138 kV line		ATSI (100%)
b2559	Reconductor the Black River – Lorain 138 kV line and upgrade Black River and Lorain substation terminal end equipment		ATSI (100%)
b2560	Construct a second 138 kV line between West Fremont and Hayes substation on open tower position of the West Fremont –Groton –Hayes 138 kV line		ATSI (100%)
b2616	Addition of 4th 345/138 kV transformer at Harding		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2673	Rebuild the existing double circuit tower line section from Beaver substation to Brownhelm Jct. approx. 2.8 miles		ATSI (100%)
b2674	Rebuild the 6.6 miles of Evergreen to Ivanhoe 138 kV circuit with 477 ACSS conductor		ATSI (100%)
b2675	Install 26.4 MVAR capacitor and associated terminal equipment at Lincoln Park 138 kV substation		ATSI (100%)
b2725	Build new 345/138 kV Lake Avenue substation w/ breaker and a half high side (2 strings), 2-345/138 kV transformers and breaker and a half (2 strings) low side (138 kV). Substation will tie Avon – Beaver 345 kV #1/#2 and Black River – Johnson #1/#2 lines		ATSI (100%)
b2725.1	Replace the Murray 138 kV breaker ‘453-B-4’ with 40 kA breaker		ATSI (100%)
b2742	Replace the Hoytdale 138 kV ‘83-B-26’ and ‘83-B-30’ breakers with 63 kA breakers		ATSI (100%)
b2753.4	Double capacity for 6 wire “Burger-Cloverdale No. 2” 138 kV line and connect at Holloway and “Point A”		ATSI (100%)
b2753.5	Double capacity for 6 wire “Burger-Longview” 138 kV line and connect at Holloway and “Point A”		ATSI (100%)
b2778	Add 2nd 345/138 kV transformer at Chamberlin substation		ATSI (100%)
b2780	Replace Bruce Mansfield 345 kV breaker ‘B57’ with an 80 kA breaker, and associated gang-operated disconnect switches D56 and D58		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2869	Replace the Crossland 138 kV breaker "B-16" with a 40 kA breaker		ATSI (100%)
b2875	Relocate the Richland to Ridgeville 138 kV line from Richland J bus to K, extend the K bus and install a new breaker		ATSI (100%)
b2896	Rebuild/Reconductor the Black River – Lorain 138 kV circuit		ATSI (100%)
b2897	Reconductor the Avon – Lorain 138 kV section and upgrade line drop at Avon		ATSI (100%)
b2898	Reconductor the Beaver – Black River 138 kV with 954 Kcmil ACSS conductor and upgrade terminal equipment on both stations		ATSI (100%)
b2942.1	Install a 100 MVAR 345 kV shunt reactor at Hayes substation		ATSI (100%)
b2942.2	Install a 200 MVAR 345 kV shunt reactor at Bayshore substation		ATSI (100%)
b2972	Reconductor limiting span of Lallendorf – Monroe 345 kV		MISO (11.00%) / AEP (5.38%) / APS (4.27%) / ATSI (66.48%) / Dayton (2.71%) / Dominion (5.31%) / DL (4.85%)
b3031	Transfer load off of the Leroy Center - Mayfield Q2 138 kV line by reconfiguring the Pawnee substation primary source, via the existing switches, from the Leroy Center - Mayfield Q2 138 kV line to the Leroy Center - Mayfield Q1 138 kV line		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3032	Greenfield - NASA 138 kV terminal upgrades: NASA substation, Greenfield exit: Revise CT tap on breaker B22 and adjust line relay settings; Greenfield substation, NASA exit: Revise CT tap on breaker B1 and adjust line relay settings; replace 336.4 ACSR line drop with 1033.5 AL	ATSI (100%)
b3033	Ottawa – Lakeview 138 kV reconductor and substation upgrades	ATSI (100%)
b3034	Lakeview – Greenfield 138 kV reconductor and substation upgrades	ATSI (100%).
b3066	Reconductor the Cranberry – Jackson 138 kV line (2.1 miles), reconductor 138 kV bus at Cranberry bus and replace 138 kV line switches at Jackson bus	ATSI (100%)
b3067	Reconductor the Jackson – Maple 138 kV line (4.7 miles), replace line switches at Jackson 138 kV and replace the line traps and relays at Maple 138 kV bus	ATSI (100%)
b3080	Reconductor the 138 kV bus at Seneca	ATSI (100%)
b3081	Replace the 138 kV breaker and reconductor the 138 kV bus at Krendale	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3123 At Sammis 345 kV station: Install a new control building in the switchyard, construct a new station access road, install new switchyard power supply to separate from existing generating station power service, separate all communications circuits, and separate all protection and controls schemes		ATSI (100%)
b3124 Separate metering, station power, and communication at Bruce Mansfield 345 kV station		ATSI (100%)
b3127 At Bay Shore 138 kV station: Install new switchyard power supply to separate from existing generating station power service, separate all communications circuits, and construct a new station access road		ATSI (100%)
b3152 Reconductor the 8.4 mile section of the Leroy Center – Mayfield Q1 line between Leroy Center and Pawnee Tap to achieve a rating of at least 160 MVA / 192 MVA (SN/SE)		ATSI (100%)
b3234 Extend both the east and west 138 kV buses at Pine substation, and install one (1) 138 kV breaker, associated disconnect switches, and one (1) 100 MVAR reactor		ATSI (100%)
b3235 Extend 138 kV bus work to the west of Tangy substation for the addition of the 100 MVAR reactor bay and one (1) 138 kV 40 kA circuit breaker		ATSI (100%)
b3236 Extend the Broadview 138 kV bus by adding two (2) new breakers and associated equipment and install a 75 MVAR reactor		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3260	Replace the existing breaker 501-B-251 with a new 69 kV breaker with a higher (40 kA) interrupting capability		ATSI (100%)
b3277	Replace the existing East Akron 138 kV breaker 'B-22' with 3000A continuous, 40 kA momentary current interrupting rating circuit breaker		ATSI (100%)

SCHEDULE 12 – APPENDIX A

(24) Duke Energy Ohio and Duke Energy Kentucky

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2278	Revising the reclosing of Charles 138 kV breaker '919' to 15 sec	DEOK (100%)
b2451	Replace the Charles 138 kV breaker '919' with 63 kA	DEOK (100%)
b2564	Add two breakers at Miami Fort 138 kV; Interim solution to violation driven by Beckjord GTs deactivations is to lower generation at Miami Fort to 120 MW	DEOK (100%)
b2634	Convert Miami Fort 345 kV substation to a ring bus terminating Feeder 4504, TB 9 and TB 10 in separate ring positions	DEOK (100%)
b2828	Install 5% reactors at Miami Fort 138 kV to limit current	DEOK (100%)
b2829	Reconductor feeder from Port Union to East Provident 138 kV line for 300MVA	DEOK (100%)
b2830	Expand Garver 345 kV substation to include 138 kV. Install 1-345 kV breaker, 1-345/138 kV 400 MVA transformer, 6-138 kV Breakers and bus work. Connect local 138 kV circuits from Todhunter, Rockies Express, and Union	DEOK (100%)
b2831.2	Upgrade the Tanner Creek - Miami Fort 345 kV circuit (DEOK portion)	DFAX Allocation: Dayton (99.99%) / EKPC 0.01%)
b2894	Replace Todhunter 138 kV breakers '931', '919', and '913' with 80 kA breakers	DEOK (100%)

Duke Energy Ohio and Duke Energy Kentucky (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2895	Replace Dicks Creek 138 kV breaker '963' with 63 kA breaker		DEOK (100%)
b2901	Reconductor the Port Union – Mulhauser 138 kV line with 954 ASCR bringing the summer ratings to A/B/C=300/300/300 MVA		DEOK (100%)
b2977	Portion of 2017 1-6A		DEOK (100%)
b2977.1	Install a new 345 kV breaker "1422" so Pierce 345/138 kV transformer #18 is now fed in a double breaker, double bus configuration		DEOK (100%)
b2977.2	Remove X-533 No. 2 to the first tower outside the station. Install a new first tower for X-533 No. 2		DEOK (100%)
b2977.3	Install a new 345 kV breaker B and move the Buffington – Pierce 345 kV feeder to the B-C junction. Install a new tower at the first tower outside the station for Buffington – Pierce 345 kV line		DEOK (100%)
b2977.4	Remove breaker A and move the Pierce 345/138 kV transformer #17 feed to the C-D junction		DEOK (100%)
b2977.5	Replace breaker 822 at Beckjord 138 kV substation to increase the rating from Pierce to Beckjord 138 kV to 603 MVA		DEOK (100%)
b3048	Replace 138 kV breakers 937, 941 and 945 at Todhunter station		DEOK (100%)
b3050	Install redundant relay to Port Union 138 kV Bus #2		DEOK (100%)