



PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403

Pauline Foley
Associate General Counsel
T: (610) 666-8248 | F: (610) 666-8211
pauline.foley@pjm.com

January 19, 2018

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. ER18-680-000
PJM Compliance Filing in Docket Nos. EL17-84-000 and EL17-90-000*

Dear Secretary Bose:

PJM Interconnection, L.L.C. (“PJM”) hereby submits for filing proposed revisions to Schedule 12-Appendix and Schedule 12-Appendix A of the PJM Open Access Transmission Tariff (“PJM Tariff” or “Tariff”) as a follow up to the requirements set forth in the December 15, 2017 orders¹ issued by the Federal Energy Regulatory Commission (“Commission” or “FERC”) in the captioned dockets.

PJM requests that the proposed revisions to Schedule 12-Appendix and Schedule 12-Appendix A be made effective on January 1, 2018, which is the date on which Linden VFT, LLC (“Linden”) and Hudson Transmission Partners, LLC (“HTP”), the owners of certain merchant transmission facilities awarded Firm Transmission Withdrawal Rights (“TWRs”) under their respective Interconnection Service Agreements (“ISA”), no longer held Firm TWRs and, therefore, would no longer be allocated costs for RTEP projects.² As noted herein, PJM has, through this filing, made a good faith attempt to reconcile the Commission’s December 15 Orders with the existing provisions of the PJM Tariff relative to cost allocation. No doubt,

¹ *PJM Interconnection, L.L.C.*, 161 FERC ¶61,262 at P 50 (Dec. 15, 2017) (“December 15 HTP Order”); *Linden VFT, LLC v Public Service Electric and Gas Company, et al.*, 161 FERC ¶ 61,264 at P 32 (Dec. 15, 2017) (“December 15 Linden Order”) (collectively referred to as the “December 15 Orders”).

² December 15 HTP Order at P 50; December 15 Linden Order at P 32.

others may have different legitimate interpretations as to how to appropriately implement these orders and how best to reconcile the existing Tariff provisions with the December 15 Orders. PJM urges the Commission to review this filing (and any protests thereto) in an expeditious manner to avoid the magnitude of a contested allocation of costs accumulating over time leading to both potential large refunds, as well as uncertainty as to future cost allocations.

I. BACKGROUND

A. Firm TWRs and Allocation of Firm TWRs

A transmission interconnection customer seeking to interconnect Merchant D.C. Transmission Facilities and/or controllable A.C. Merchant Transmission Facilities to the PJM transmission system³ may elect, among other things, either Firm⁴ or Non-Firm⁵ TWRs. If the merchant transmission facility elects Firm TWRs, the customer is responsible for both (i) necessary upgrades identified through the interconnection study process to support interconnecting the facility with Firm TWRs; and (ii) costs of any post-interconnection network upgrades included in PJM's regional transmission expansion plan ("RTEP") as identified consistent with the PJM Tariff's Schedule 12 cost allocation methodologies.

B. HTP's and Linden's Transmission Interconnection Requests

Under their respective ISAs, Linden and HTP requested Firm TWRs. Both HTP and Linden constructed and paid for all necessary upgrades identified through the interconnection study process and included in their ISAs to support their interconnection requests. In addition,

³ See PJM Tariff § 36.1.03.1.e.

⁴ See PJM Tariff, Definitions E – F. Firm TWRs allow the merchant transmission facility to schedule energy and capacity withdrawals from the PJM transmission system.

⁵ See PJM Tariff, Definitions L-M-N. Non-Firm TWRs allow the merchant transmission facility to schedule energy only and, as such, are similar to Non-Firm Point-to-Point Transmission Service in that Non-Firm TWRs allow the merchant transmission facility to schedule transmission service on an as-available basis and are subject to curtailment.

Linden and HTP have been assigned cost responsibility under Schedule 12-Appendix and Schedule 12-Appendix A consistent with Schedule 12 of the PJM Tariff.

1. HTP's Request to Convert Its Firm TWRs

By letter dated June 2, 2017 to PJM, HTP requested to surrender all of its 320 MW of Firm TWRs and convert them to Non-Firm TWRs by amendment to HTP's existing ISA.⁶ At HTP's request, PJM filed, pursuant to section 205 of the Federal Power Act ("FPA"), an unexecuted agreement to amend the HTP Existing ISA to convert HTP's TWRs from Firm to Non-Firm following notification by Public Service Electric and Gas Company ("PSEG") that PSEG did not consent to amending the HTP Existing ISA.⁷ On September 8, 2017,⁸ the Commission issued an order rejecting the unexecuted amended interconnection service agreement for HTP ("HTP Amended ISA") and instituted a proceeding under Section 206 of the FPA in Docket No. EL17-84-000 (the "Show Cause Proceeding"). In the Show Cause Order, PSEG and PJM were directed to show cause "why the [HTP Existing] ISA and PSEG's failure to consent to the [HTP] Amended ISA is not unjust and unreasonable and unduly discriminatory."⁹ In addition, the Commission found that "[n]ot permitting HTP to reduce the quality of its service from Firm Transmission Withdrawal Rights to Non-Firm Transmission Withdrawal Rights appears unjust and unreasonable in these factual circumstances."¹⁰ On December 15, 2017, in response to the Show Cause Order, the Commission found the HTP Existing ISA was unjust and

⁶ Interconnection Service Agreement Among PJM Interconnection, L.L.C., Hudson Transmission Partners, L.L.C., and Public Service Electric and Gas Company, designated as Original Service Agreement No. 2536, effective June 9, 2010 ("HTP Existing ISA"). See *PJM Interconnection, L.L.C.*, Filing, Docket No. ER10-1740-000 (accepted by letter order issued on Aug. 31, 2010) ("August 31 Order").

⁷ *PJM Interconnection, L.L.C.*, Unexecuted Agreement to Amend Service Agreement No. 2536, Docket No. ER17-2073-000 (Jun. 22, 2017).

⁸ *PJM Interconnection, L.L.C.*, 160 FERC ¶ 61,056 (Sept. 8, 2017) ("Show Cause Order").

⁹ Show Cause Order at P 42.

¹⁰ *Id.* at P 43.

unreasonable insofar as it did not permit HTP to convert its Firm TWRs to Non-Firm TWRs.¹¹ Accordingly, the Commission directed PJM to make a compliance filing to amend the Existing ISA, Specifications, section 2.2, to reflect the conversion of 320 MW Firm TWRs to a total of zero MWs Firm TWRs and to convert those 320 MW of Firm to Non-Firm TWRs,¹² resulting in a total of 673 MW of Non-Firm TWRs, effective December 15, 2017.¹³ In connection with that conversion, the Commission stated that “[a]s of the effective date of HTP’s conversion of its Firm TWRs to Non-Firm TWRs, PJM is no longer required to provide firm service and can curtail non-firm service whenever necessary to preserve reliability.”¹⁴ In addition, the Commission also found consistent with Schedule 12 “RTEP upgrade costs would no longer be allocable to HTP.”¹⁵

2. *Linden’s Request to Convert Its Firm TWRs*

On June 28, 2017, Linden also sent a letter to PJM and PSEG requesting modification of the Linden Existing ISA¹⁶ to reflect a reduction of its 330 MW of Firm TWRs to 330 MW of Non-Firm TWRs, resulting in a concomitant reduction in interconnection service level. Again, PSEG refused to consent to amend the Linden Existing ISA and, at Linden’s request, PJM filed the unexecuted Linden Amended ISA reflecting conversion of Linden’s 330 MW Firm TWRs to

¹¹ December 15 HTP Order at P 41.

¹² See June 22 Filing, Attachment B, Specifications § 2.2 (Under its Existing ISA, HTP was awarded 320 MW of Firm TWRs and 353 MW of Non-Firm TWRs. Upon conversion of the 320 MW of Firm TWRs to Non-Firm TWRs, HTP received zero MW of Firm TWRs and 673 MW of Non-Firm TWRs).

¹³ December 15 HTP Order at P 41.

¹⁴ *Id.* at P 50.

¹⁵ *Id.*

¹⁶ Interconnection Service Agreement Among PJM Interconnection, L.L.C., Linden VFT, L.L.C., and Public Service Electric and Gas Company, designated as Original Service Agreement No. 3579, effective May 31, 2013 (“Linden Existing ISA”). See *PJM Interconnection, L.L.C.*, Filing of Service Agreement No. 3579, Docket No. ER13-1619-000 (May 31, 2013) (accepted by Commission order dated July 30, 2013). See *PJM Interconnection, L.L.C.*, 144 FERC ¶ 61,070 (July 30, 2013).

330 MW Non-Firm TWRs in Docket No. ER17-2267-000.¹⁷ By order dated October 5, 2017,¹⁸ the Commission rejected PJM's filing, finding that neither the Linden Existing ISA nor the PJM Tariff permitted PJM to file under section 205 of the FPA an unexecuted amended ISA with modifications at the interconnection customer's request. Prior to issuance of the Commission's October 5 Order, Linden filed a Complaint arguing that PSEG unreasonably withheld its consent to amend Linden's Existing ISA and requesting the Commission to direct PSEG to consent to the amendment to the Linden Existing ISA.¹⁹ In support, Linden stated that (i) it fully paid for the network upgrades necessary to support its Firm TWRs; (ii) there are no reliability concerns or operational issues raised as a result of Linden's request to reduce the level of service from Firm to Non-Firm TWRs; and (iii) the Linden facility will remain fully controllable by PJM.²⁰ On December 15, 2017, the Commission granted the Complaint in part finding the Linden Existing ISA is unjust and unreasonable insofar as it does not permit Linden to convert its Firm TWRs to Non-Firm TWRs.²¹ Accordingly, the Commission directed PJM that upon written notice from Linden, PJM make a compliance filing to amend the Linden Existing ISA, Specifications, section 2.2, to reflect the conversion of 330 MW Firm TWRs to a total of zero MWs Firm TWRs and to convert those 330 MW of Firm to Non-Firm TWRs, to be effective on the date requested by

¹⁷ *PJM Interconnection, L.L.C.*, Unexecuted Agreement to Amend Service Agreement No. 3579, Docket No. ER17-2267-000 (Aug. 9, 2017).

¹⁸ *PJM Interconnection, L.L.C.*, 160 FERC ¶ 61,021 (Oct. 5, 2017) ("October 5 Order").

¹⁹ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, Complaint and Request for Fast Track Processing and Motion for Expedition, or in the Alternative, Stay of Certain RTEP Charges of Linden VFT, LLC, Docket No. EL17-90-000 (Sept. 18, 2017) ("Linden Complaint").

²⁰ *Id.* at 11.

²¹ *Linden VFT, LLC v. PJM Interconnection, L.L.C.*, 161 FERC ¶ 61,264 at P 6 (Dec. 15, 2017) ("December 15 Linden Order").

Linden in its written notice, but no earlier than the date of that notice.²² By letter dated December 22, 2017, Linden requested an effective date of December 31, 2017 at 11:59:59 p.m.

In connection with that conversion, the Commission stated that “[a]s of the effective date of Linden’s conversion of its Firm TWRs to Non-Firm TWRs, PJM is no longer required to provide firm service and can curtail non-firm service whenever necessary to preserve reliability.”²³ In addition, the Commission also found that under Schedule 12 “RTEP project costs would no longer be allocable to Linden as of the effective date of Linden’s conversion from Firm TWRs to Non-Firm TWRs.”²⁴

II. IMPLEMENTATION OF THE DECEMBER 15 ORDERS

While the December 15 Orders clearly state that as of the effective date of their conversion from Firm to Non-Firm TWRs, HTP and Linden will no longer be allocated RTEP project costs, the orders do not address some of the nuances in Schedule 12 that likely will engender controversy in implementing them. Specifically, (i) other than the Tariff, Schedule 12, section (b)(xi), there are no provisions in Schedule 12 for a mid-month or mid-year termination and recalculation of cost responsibility; (ii) cost assignments for RTEP projects allocated using load-ratio share and solution-based DFAX²⁵ are updated annually (no later than December 31) to be effective on January 1 of the upcoming year; (iii) RTEP assignments allocated using load-ratio share do not end at year end, but are based upon the prior year’s peak load and, therefore, such assignments roll off a year later; and (iv) there are no provisions that permit PJM to

²² *Id.* at P 23.

²³ *Id.* at P 32.

²⁴ *Id.*

²⁵ PJM Tariff, Schedule 12 § (b)(iii)(H)(2) (projects allocated using solution-based DFAX analysis are updated beginning with the calendar year in which an RTEP project is planned to enter service and annually thereafter).

reallocate cost responsibility for economic projects below 500 kV or cost assignments allocated using violation-based DFAX.

On the other hand, the December 15 Orders are clear and appear to speak broadly that an entity such as HTP or Linden is no longer to be allocated RTEP costs as of the effective date of its conversion from Firm TWRs to Non-Firm TWRs.²⁶ Thus, in a good faith attempt to apply the provisions of the December 15 Orders, PJM proposes to implement the orders as follows: (i) terminate HTP's Firm TWRs effective December 15, 2017, but maintain HTP's responsibility for RTEP costs through December 31, 2017 to align with the end of PJM's monthly billing period and end of the RTEP billing year; (ii) terminate Linden's Firm TWRs effective December 31, 2017; and (iii) stop future allocation of RTEP costs, including the allocation RTEP costs based upon past peak loads, effective January 1, 2018.

As stated above, there are no provisions in Schedule 12 that address how PJM should implement the Commission's December 15 Orders, so PJM respectfully requests that the Commission confirm PJM's implementation to eliminate any allocation of costs to HTP and Linden effective January 1, 2018 for those upgrades that are annually updated under Schedule 12.²⁷ As set forth in this filing, PJM is also implementing the December 15 Orders to eliminate HTP's and Linden's cost responsibility for those RTEP projects that are generally not updated in Schedule 12-Appendix or Schedule 12-Appendix A over the life of the facility. Specifically, neither the Tariff nor the Schedule 12-Appendices provides a process to update the cost assignments for Lower Voltage Facilities (below 500 kV) that were allocated using the

²⁶ December 15 HTP Order at P 50; December 15 Linden Order at P 32.

²⁷ See, e.g., *PJM Interconnection, L.L.C.*, 2018 Annual RTEP Update Filing, Docket No. ER18-579-000 (Dec. 29, 2017).

violation-based distribution factor (“DFAX”) analysis²⁸ or economic upgrades²⁹ after the initial allocation of the facility costs. PJM interprets the December 15 Orders as directing that all allocations to HTP and Linden cease as of January 1, 2018, and thus PJM proposes to eliminate such cost responsibility by pro-rating the allocations to the remaining zones as it did when it eliminated Consolidated Edison Company, Inc.’s (“Con Edison”) cost allocations in Docket No. ER17-950-000.³⁰

To PJM’s knowledge, there have been only two instances where PJM was faced with revising cost responsibility assignments mid-year. The first instance was when Duquesne Light Company (“Duquesne”) requested to transfer its members in PJM to the Midwest Independent System Operator, Inc. region, effective October 1, 2008. In the context of that docket, the Commission addressed Duquesne’s responsibility for projects approved and constructed under the PJM RTEP. With regard to Regional Facilities and Necessary Lower Voltage Facilities, the Commission determined not to subject Duquesne to PJM’s future-period, annually updated RTEP costs.³¹ However, for RTEP costs allocated to the Duquesne Zone under the current-year 2008 Schedule 12 cost allocations, the Commission held that those allocations would “continue

²⁸ Prior to the Commission’s acceptance of the solution-based distribution factor (“DFAX”) analysis, which focuses on the benefits that users derive from the use of a required transmission enhancement, PJM used a violation-based DFAX analysis to determine cost allocations for Lower Voltage Facilities. The violation-based DFAX analysis evaluated users’ relative contribution to the situation that created the need for a required transmission enhancement to be included in the RTEP. Unlike the solution-based DFAX analysis which can be updated annually to take into account relative use of the facility due to system modifications, the violation-based DFAX methodology could not practically be replicated periodically over the operating life of the transmission enhancement. *See Public Service Electric and Gas Company, Revisions to PJM Tariff Cost Allocations*, Docket No. ER13-90-000 at 9 and Exh. No. PTO-1 at 7 – 8.

²⁹ *PJM Interconnection, L.L.C.*, 129 FERC ¶ 61,161 at P 133 (Nov. 19, 2009) (“Opinion No. 503”) (finding that PJM for economic upgrades for projects below 500kV PJM assigns cost responsibility once and does not re-evaluate such assignments).

³⁰ *PJM Interconnection, L.L.C.*, Amendments to Schedules 12-Appendix and Appendix A to ConEd Wheeling Termination, Docket No. ER17-950-000 (accepted by letter order issued Jun. 20, 2017).

³¹ *Midwest Indep. Transmission Sys. Operator, Inc., et al. v. Duquesne Light Co.*, 124 FERC 61,219 at PP 162, 170 (Sept. 3, 2008) (“Duquesne Order”).

to apply to the Duquesne [Z]one and may be collected by PJM through the current calendar year, ending December 31, 2008, based on the current-period, load ratio shares on file with the Commission under [S]chedule 12.”³² The Commission clarified, however, that when PJM recalculated its load-ratio shares, it must submit its next annual 2009 RTEP update filing to reflect PJM’s then-existing zones and loads (*sans* the Duquesne Zone).³³ With regard to Lower Voltage Facilities assigned under the violation-based DFAX, the Commission found that such assignment was fixed as of that point.³⁴ The issue was never litigated because Duquesne conceded it would continue to be liable for those allocations.³⁵ Of course, the Lower Voltage Facilities allocated using the violation-based DFAX analysis at the time were mostly located in the Duquesne Zone and would remain with Duquesne after it exited PJM.

The second event where PJM revised cost responsibility assignments for projects approved and constructed under the RTEP was when Consolidated Edison Company, Inc. (“Con Edison”), terminated its service under two firm point-to-point service agreements.³⁶ The two TSAs were the subject of a settlement agreement wherein Con Edison agreed to be assigned cost responsibility for RTEP enhancements and to pay associated RTEP costs during the term of its roll over service, which included the term of the Con Edison TSAs, as well as any subsequent

³² *Id.*

³³ *Id.* at P 167.

³⁴ *Id.* at P 168.

³⁵ *Id.* at P 168. Based on a review of the number of Lower Voltage Facilities in the 2008 RTEP allocated to the Duquesne Zone using violation-based DFAX, it appears there were approximately five projects. Of the five projects, three were located in and designated to Duquesne (b0501, b0502 and b0503) and allocated 93.26% to Duquesne and the remaining 6.74% to the APS Zone). The remaining two projects were located in and designated to APS and allocated as follows: baseline b0674 APS 97.68%, Duquesne 0.96 %, ECP 0.01%, PENELEC 1.09%, PSEG 0.25%, RE 0.01%; and b0704 APS 74.36%, DL 2.73%, PENELEC 22.91%.

³⁶ See Two Form of Service Agreements For Firm Point-To-Point Transmission Service entered into between PJM and Con Edison dated April 18, 2008, designated as Original Service Agreement Nos. 1873 and 1874 commencing on May 1, 2012 and terminating on April 30, 2017 (“Con Edison TSAs”). See *PJM Interconnection, L.L.C.*, Filing, Docket No. ER08-858-000 at Attachment B (Apr. 22, 2008).

roll over of such service.³⁷ The settling parties further agreed that with respect to the transmission service under the Con Edison TSAs, Con Edison would have no liability for RTEP charges prior to the commencement of, or after the termination of, such terms of service.³⁸ Such settlement terms and conditions were incorporated by reference in Schedule 12 of the PJM Tariff at section (b)(xi), which explicitly provides that all cost responsibility assignments for RTEP projects pursuant to Schedule 12 shall be adjusted at the commencement and termination of service under the Con Edison TSAs. Given the settlement agreement accepted by the Commission and the PJM Tariff, Schedule 12 at section (b)(xi), PJM revised Schedule 12-Appendix and Schedule 12-Appendix A to terminate all cost responsibility assignments to Con Edison mid-year, effective May 1, 2017.

Despite this limited precedent, the Commission, in the December 15 Orders, determined that once PJM was no longer required to provide HTP or Linden merchant transmission facility firm service and could curtail non-firm service whenever necessary to preserve reliability, HTP and Linden would no longer be allocated RTEP costs under Schedule 12-Appendix and Schedule 12-Appendix A. Consistent with that language, PJM proposes to revise Schedule 12-Appendix and Schedule 12-Appendix A to implement the Commission's directive and eliminate all of HTP's and Linden's RTEP cost responsibilities as of January 1, 2018.

³⁷ See *PJM Interconnection, L.L.C., et al.*, Settlement Agreement and Offer of Settlement, Docket No. ER08-858-000, *et al.*, (Feb. 23, 2009) ("Settlement Agreement"). The settling Parties included: PJM, the New York Independent System Operator, Inc. ("NYISO"), Con Edison, Public Service Electric and Gas Company, PSEG Energy Resources & Trading LLC and the New Jersey Board of Public Utilities.

³⁸ Settlement Agreement at P 20.

III. SATISFACTION OF THE COMPLIANCE REQUIREMENTS OF THE DECEMBER 15 ORDERS

To comply with the December 15 Orders, PJM included in its December 31, 2017 annual RTEP update filing,³⁹ revisions to Schedule 12-Appendix and Schedule 12-Appendix A to remove all of HTP's and Linden's cost responsibility assignments from the baseline upgrades that were the subject of PJM's annual update filing.⁴⁰ In addition to the revisions to the baseline upgrades revised under the 2018 Annual Update Filing, HTP and Linden are assigned cost responsibility for RTEP projects not updated annually under Schedule 12. Consequently, in order to effectuate the findings in the December 15 Orders that HTP and Linden would not be allocated RTEP costs once they no longer held Firm TWRs,⁴¹ PJM submits these revisions to Schedule 12-Appendix and Schedule 12-Appendix A to eliminate cost responsibility assignments to HTP and Linden under Schedule 12-Appendix that were either allocated originally using the violation-based DFAX analysis or were economic projects below 500 kV; and for all other RTEP projects under Schedule 12-Appendix A that were not revised under the 2018 Annual Update Filing and continue to assign cost responsibility to HTP and Linden.

³⁹ *PJM Interconnection, L.L.C.*, 2018 Annual RTEP Update Filing, Docket No. ER18-579-000 (Dec. 31, 2017) ("2018 Annual RTEP Update").

⁴⁰ See PJM Tariff, Schedule 12 §§ (b)(i)(A)(1) and (b)(iii)(H)(2).

⁴¹ HTP December 15 Order at P 50; Linden December 15 Order at P 32.

IV. CORRESPONDENCE AND COMMUNICATIONS

Correspondence and communications with respect to this filing should be sent to, and the parties request the Secretary to include on the official service list, the following:

Craig Glazer
Vice President – Federal Government Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W., Suite 600
Washington, D.C. 20005
Ph: (202) 423-4743
craig.glazer@pjm.com

Pauline Foley
Associate General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403
Ph: (610) 666-8248
pauline.foley@pjm.com

V. CONTENTS OF THIS FILING

The following is a list of documents submitted with this filing:

1. This transmittal letter;
2. Attachment A – Revisions to PJM Tariff, Schedule 12-Appendix and Schedule 12-Appendix A (redlined form); and
3. Attachment B – Revisions to PJM Tariff, Schedule 12-Appendix and Schedule 12-Appendix A (clean form).

VI. EFFECTIVE DATE

PJM respectfully requests that the proposed revisions to the Schedule 12-Appendix and Schedule 12-Appendix A become effective on January 1, 2018, which date coincides with the date on which the owners of the merchant transmission facilities no longer had Firm Transmission Withdrawal Rights.

VII. REQUEST FOR WAIVER

PJM is making this filing in compliance consistent with the directives in the December 15 Orders. By making this filing in compliance with the December 15 Order, PJM understands that it has hereby satisfied any of the Commission filing requirements that might apply. Should any of the Commission regulations (including filing regulations) or requirements not addressed by

PJM and be found to apply, PJM respectfully requests waiver of any such regulation or requirement.

VIII. SERVICE

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations,⁴² 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/ferc-manuals/ferc-filings.aspx> with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM Members and all state utility regulatory commissions in the PJM Region⁴³ 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 24 hours of the filing. Also, a copy of this filing will be available on the FERC's eLibrary website located at the following link: <http://www.ferc.gov/docs-filing/elibrary.asp> in accordance with the Commission's regulations and Order No. 714.

⁴² See 18C.F.R §§ 35.2(e) and 385.2010(f)(3) (2016).

⁴³ PJM already maintains, updates and regularly uses e-mail lists for all PJM Members and affected state commissions.

IX. CONCLUSION

For all of the foregoing reasons, PJM respectfully request that the Commission accept the proposed revisions to PJM Tariff, Schedule 12-Appendix and Schedule 12-Appendix A, which are being filed to satisfy the requirements of the December 15 Orders.

Respectfully submitted,

Craig Glazer
Vice President – Federal Government Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W., Suite 600
Washington, D.C. 20005
Ph: (202) 423-4743
Fax: (202) 393-7741
craig.glazer@pjm.com

By: /s/ Pauline Foley
Pauline Foley
Associate General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403
Ph: (610) 666-8248
Fax: (610)666-8211
pauline.foley@pjm.com

On behalf of PJM Interconnection, L.L.C.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document on those parties on the official Service List compiled by the Secretary in these proceedings.

Dated at Audubon, Pennsylvania this 19th day of January 2018.

/s/ Pauline Foley
Pauline Foley
Assistant General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403
Ph: (610) 666-8248
pauline.foley@pjm.com

Attachment A

Revisions to Schedule 12- Appendix
and Appendix A of the
PJM Open Access Transmission Tariff

(Marked 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 (91.2891.46%) / PSEG (8.298.31%) / 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%)

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 500/230kV substation in AEC area. The high side will be tapped on the Salem - East Windsor 500kV circuit and the low side will be tapped on the Churchtown - Cumberland 230kV circuit.	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 500/230kV substation in AEC area, the high side will be tapped on the Salem - East Windsor 500kV circuit and the low side will be tapped on the Churchtown - Cumberland 230kV 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 138kV circuit		AEC (65.23%) / JCPL (25.87%) / Neptune* (2.55%) / PSEG (6.35%)
b0212	Substation upgrades at Union and Corson 138kV		AEC (65.23%) / JCPL (25.87%) / Neptune* (2.55%) / PSEG (6.35%)
b0214	Install 50 MVAR capacitor at Cardiff 230kV 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%)

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 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79 %) / PECO (51.08 <u>51.93</u> %) / PEPCO (0.57 <u>0.58</u> %) / ECP** (0.85 %) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)
b1598	Reconductor Sherman Av – Carl’s Corner 69kV 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 <u>89.21</u> %) / JCPL (4.74 <u>4.76</u> %) / HTP (0.20 %) / ECP** (0.22 %) / PSEG (5.78 <u>5.80</u> %) / 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.~~

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 500/230kV 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%) / PEPCO (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%) / PEPCO (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%) / PEPCO (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 <u>9.03</u> %) / DPL (16.85 <u>16.90</u> %) / JCPL (9.64 <u>9.67</u> %) / ME (1.48%) / Neptune* (0.95%) / PECO (30.79 <u>30.88</u> %) / PPL (16.4 <u>16.46</u> %) / ECP** (0.29 %) / PSEG (14.07 <u>14.11</u> %) / 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 wavetrapp and raise operating temperature on Conastone – Otter Creek 230 kV line to 165 deg	AEC (6.27 <u>6.31</u> %) / DPL (8.65 <u>8.70</u> %) / JCPL (14.54 <u>14.62</u> %) / ME (10.59 <u>10.65</u> %) / Neptune* (1.37 <u>1.38</u> %) / PECO (15.66 <u>15.75</u> %) / PPL (21.02 <u>21.14</u> %) / ECP** (0.57 %) / PSEG (20.56 <u>20.68</u> %) / 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (11.40%) / ComEd (6.13%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (11.40%) / ComEd (6.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

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 (16.1%) / PEPCO (6.6%)
b1055 Upgrade wire drops at Center 115kV 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 115/13kV station	BGE (100%)
b1606.2	Installing 115kV 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 115kV substation to 80kA	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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
b0295	Raise conductor temperature of North Seaford – Pine Street – Dupont Seaford	DPL (100%)

*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)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
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%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
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 <u>69.65</u> %) / PECO (17.25 <u>17.30</u> %) / ECP** (0.27 %) / PSEG (12.53 <u>12.56</u> %) / RE (0.49%)
b0737	Build a new Indian River – Bishop 138 kV line		DPL (100%)
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%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0751	Add two additional breakers at Keeney 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
b0873	Build 2nd Glasgow-Mt Pleasant 138 kV line	DPL (100%)
b0874	Reconfigure Brandywine substation	DPL (100%)

*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)
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%)
b1899.1	Install new variable reactors at Indian River and Nelson 138 kV	DPL (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-3.

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
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

(4) Jersey Central Power & Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0123	Add 180 MVAR of distributed capacitors. 65 MVAR in northern JCPL and 115 MVAR in southern JCPL	JCPL (100%)
b0124.1	Add a 72 MVAR capacitor at Kittatinny 230 kV	JCPL (100%)
b0124.2	Add a 130 MVAR capacitor at Manitou 230 kV	JCPL (100%)
b0132	Reconductor Portland – Kittatinny 230 kV with 1590 ACSS	JCPL (100%)
b0132.1	Replace terminal equipment on the Portland – Kittatinny 230 kV and CB at the Kittatinny bus	JCPL (100%)
b0132.2	Replace terminal equipment on the Portland – Kittatinny 230 kV and CB at the Portland bus	JCPL (100%)
b0173	Replace a line trap at Newton 230kV substation for the Kittatinny-Newton 230kV circuit	JCPL (100%)
b0174	Upgrade the Portland – Greystone 230kV circuit	<p><i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217,</i></p> <p>2017: \$1,442,372 2018: \$1,273,748 2019: \$1,235,637</p> <p>JCPL (35.40<u>35.98</u>%) / Neptune* (5.67<u>5.76</u>%) / PSEG (54.37<u>55.27</u>%) / RE (2.94<u>2.99</u>%) + ECP** (1.62%)</p>
b0199	Greystone 230kV substation: Change Tap of limiting CT and replace breaker on the Greystone Whippany (Q1031) 230kV line	JCPL (100%)
b0200	Greystone 230kV substation: Change Tap of limiting CT on the West Wharton	JCPL (100%)

	Greystone (E1045) 230kV line		
--	---------------------------------	--	--

* Neptune Regional Transmission System, LLC

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

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0202	Kittatinny 230kV substation: Replace line trap on Kittatinny Pohatcong (L2012) 230kV line; Pohatcong 230kV substation: Change Tap of limiting CT on Kittatinny Pohatcong (L2012) 230kV line		JCPL (100%)
b0203	Smithburg 230kV Substation: Replace line trap on the East Windsor Smithburg (E2005) 230kV line; East Windsor 230kV substation: Replace line trap on the East Windsor Smithburg (E2005) 230kV line		JCPL (100%)
b0204	Install 72Mvar capacitor at Cookstown 230kV substation		JCPL (100%)
b0267	Reconductor JCPL 2 mile portion of Kittatinny – Newton 230 kV line		JCPL (100%)
b0268	Reconductor the 8 mile Gilbert – Glen Gardner 230 kV circuit	<p><i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217,</i></p> <p>2017: \$734,194 2018: \$646,180 2019: \$628,066</p>	<p>JCPL (61.7762.43%) / Neptune* (33.03%) / PSEG (32.7333.08%) / RE (1.451.46%) / ECP** (1.05%)</p>

* Neptune Regional Transmission System, LLC

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

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0279.1	Install 100 MVAR capacitor at Glen Gardner substation	JCPL (100%)
b0279.2	Install MVAR capacitor at Kittatinny 230 kV substation	JCPL (100%)
b0279.3	Install 17.6 MVAR capacitor at Freneau 34.5 kV substation	JCPL (100%)
b0279.4	Install 6.6 MVAR capacitor at Waretown #1 bank 34.5 kV substation	JCPL (100%)
b0279.5	Install 10.8 MVAR capacitor at Spottswood #2 bank 34.5 kV substation	JCPL (100%)
b0279.6	Install 6.6 MVAR capacitor at Pequannock N bus 34.5 kV substation	JCPL (100%)
b0279.7	Install 6.6 MVAR capacitor at Haskell P bus 34.5 kV substation	JCPL (100%)
b0279.8	Install 6.6 MVAR capacitor at Pinewald #2 Bank 34.5 kV substation	JCPL (100%)
b0279.9	Install 6.6 MVAR capacitor at Matrix 34.5 kV substation	JCPL (100%)
b0279.10	Install 6.6 MVAR capacitor at Hamburg Boro Q Bus 34.5 kV substation	JCPL (100%)
b0279.11	Install 6.6 MVAR capacitor at Newburg Q Bus 34.5 kV substation	JCPL (100%)
b0286	Install 130 MVAR capacitor at Whippany 230 kV	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0289	Install 600 MVAR Dynamic Reactive Device in the Whippany 230 kV vicinity	AEC (0.65 <u>0.66</u> %) / JCPL (30.37 <u>30.90</u> %) / Neptune* (4.96 <u>5.05</u> %) / PSEG (59.65 <u>60.69</u> %) / RE (2.66 <u>2.70</u> %) / ECP** (1.71 %)
b0289.1	Install additional 130 MVAR capacitor at West Wharton 230 kV substation	JCPL (100%)
b0292	Replace a 1600A line trap at Atlantic Larrabee 230 kV substation	JCPL (100%)
b0350	Implement Operating Procedure of closing the Glendon – Gilbert 115 kV circuit	JCPL (100%)

* Neptune Regional Transmission System, LLC

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

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0356	Replace wave trap on the Portland – Greystone 230 kV		JCPL (100%)
b0361	Change tap of limiting CT at Morristown 230 kV		JCPL (100%)
b0362	Change tap setting of limiting CT at Pohatcong 230 kV		JCPL (100%)
b0363	Change tap setting of limiting CT at Windsor 230 kV		JCPL (100%)
b0364	Change tap setting of CT at Cookstown 230 kV		JCPL (100%)
b0423.1	Upgrade terminal equipment at Readington (substation conductor)		JCPL (100%)
b0520	Replace Gilbert circuit breaker 12A		JCPL (100%)
b0657	Construct Boston Road 34.5 kV stations, construct Hyson 34.5 stations, add a 7.2 MVAR capacitor at Boston Road 34.5 kV		JCPL (100%)
b0726	Add a 2 nd Raritan River 230/115 kV transformer	<i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217,</i> 2017: \$950,666 2018: \$846,872 2019: \$827,854	AEC (2.45%) / JCPL (97.55%)
b1020	Replace wave trap at Englishtown on the Englishtown - Manalapan circuit		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1075	Replace the West Wharton - Franklin - Vermont D931 and J932 115 kV line conductors with 1590 45/7 ACSR wire between the tower structures 78 and 78-B	JCPL (100%)
b1154.1	Upgrade the Whippany 230 kV breaker 'JB'	JCPL (100%)
b1155.1	Upgrade the Red Oak 230 kV breaker 'G1047'	JCPL (100%)
b1155.2	Upgrade the Red Oak 230 kV breaker 'T1034'	JCPL (100%)
b1345	Install Martinsville 4-breaker 34.5 rink bus	JCPL (100%)
b1346	Reconductor the Franklin – Humburg (R746) 4.7 miles 34.5 kV line with 556 ACSR and build 2.7 miles 55 ACSR line extension to Sussex	JCPL (100%)
b1347	Replace 500 CU substation conductor with 795 ACSR on the Whitesville – Asbury Tap 34.5 kV (U47) line	JCPL (100%)
b1348	Upgrade the Newton – North Newton 34.5 kV (F708) line by adding a second underground 1250 CU egress cable	JCPL (100%)
b1349	Reconductor 5.2 miles of the Newton – Woodruffs Gap 34.5 kV (A703) line with 556 ACSR	JCPL (100%)
b1350	Upgrade the East Flemington – Flemington 34.5 kV (V724) line by adding second underground 1000 AL egress cable and replacing 4/0	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1351	Add 34.5 kV breaker on the Larrabee A and D bus tie		JCPL (100%)
b1352	Upgrade the Smithburg – Centerstate Tap 34.5 kV (X752) line by adding second 200 ft underground 1250 CU egress cable		JCPL (100%)
b1353	Upgrade the Larrabee – Laurelton 34.5 kV (Q43) line by adding second 700 ft underground 1250 CU egress cable		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1354	Add four 34.5 kV breakers and re-configure A/B bus at Rockaway	JCPL (100%)
b1355	Build a new section 3.3 miles 34.5 kV 556 ACSR line from Riverdale to Butler	JCPL (100%)
b1357	Build 10.2 miles new 34.5 kV line from Larrabee – Howell	JCPL (100%)
b1359	Install a Troy Hills 34.5 kV by-pass switch and reconfigure the Montville – Whippany 34.5 kV (D4) line	JCPL (100%)
b1360	Reconductor 0.7 miles of the Englishtown – Freehold Tap 34.5 kV (L12) line with 556 ACSR	JCPL (100%)
b1361	Reconductor the Oceanview – Neptune Tap 34.5 kV (D130) line with 795 ACSR	JCPL (100%)
b1362	Install a 23.8 MVAR capacitor at Wood Street 69 kV	JCPL (100%)
b1364	Upgrade South Lebanon 230/69 kV transformer #1 by replacing 69 kV substation conductor with 1590 ACSR	JCPL (100%)
b1399.1	Upgrade the Whippany 230 kV breaker ‘QJ’	JCPL (100%)
b1673	Rocktown - Install a 230/34.5 kV transformer by looping the Pleasant Valley - E Flemington 230 kV Q-2243 line (0.4 miles) through the Rocktown Substation	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1674	Build a new Englishtown - Wyckoff St 15 mile, 115 kV line and install 115/34.5 kV transformer at Wyckoff St		JCPL (100%)
b1689	Atlantic Sub - 230 kV ring bus reconfiguration. Put a “source” between the Red Bank and Oceanview “loads”		JCPL (100%)
b1690	Build a new third 230 kV line into the Red Bank 230 kV substation		JCPL (100%)
b1853	Install new 135 MVA 230/34.5 kV transformer with one 230 kV CB at Eaton Crest and create a new 34.5 kV CB straight bus to feed new radial lines to Locust Groove and Interdata/Woodbine		JCPL (100%)
b1854	Readington I737 34.5 kV Line - Parallel existing 1250 CU UG cable (440 feet)		JCPL (100%)
b1855	Oceanview Substation - Relocate the H216 breaker from the A bus to the B bus		JCPL (100%)
b1856	Madison Tp to Madison (N14) line - Upgrade limiting 250 Cu substation conductor with 795 ACSR at Madison sub		JCPL (100%)
b1857	Montville substation - Replace both the 397 ACSR and the 500 Cu substation conductor with 795 ACSR on the 34.5 kV (M117) line		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1858	Reconductor the Newton - Mohawk (Z702) 34.5 kV line with 1.9 miles of 397 ACSR		JCPL (100%)
b2003	Construct a Whippany to Montville 230 kV line (6.4 miles)		JCPL (100%)
b2015	Build a new 230 kV circuit from Larrabee to Oceanview	<i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217, 2017: \$9,616,241 2018: \$18,839,128 2019: \$19,935,489</i>	JCPL (35.83 37.04%) / NEPTUNE* (23.61 24.40%) / HTP (1.77%) / ECP** (1.49%) / PSEG (35.87 37.08%) / RE (1.43 1.48%)
b2147	At Deep Run, install 115 kV line breakers on the B2 and C3 115 kV lines		JCPL (100%)

* Neptune Regional Transmission System, LLC

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

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 230Kv series reactor and 2- 100MVAR PLC switched capacitors at Hunterstown	AEC (6.71 <u>6.75</u> %) / APS (3.97 <u>4.00</u> %) / DPL (9.10 <u>9.16</u> %) / JCPL (16.85 <u>16.96</u> %) / ME (10.53 <u>10.60</u> %) / Neptune* (1.69 <u>1.70</u> %) / PECO (19.00 <u>19.12</u> %) / PPL (7.55 <u>8.55</u> %) / PSEG (22.67 <u>22.82</u> %) / 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 115kV breaker '95312'		ME (100%)
b1001	Replace Portland 115kV 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 500kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1801	Build a 250 MVAR SVC at Altoona 230 kV		AEC (6.47 6.48%) / AEP (2.58%) / APS (6.88 6.89%) / BGE (6.57 6.58%) / DPL (12.39 12.40%) / Dominion (14.89 14.90%) / JCPL (8.14 8.15%) / ME (6.21%) / Neptune* (0.82%) / PECO (21.56 21.58%) / PPL (4.89%) / PSEG (8.18 8.19%) / RE (0.33%) / ECP** (0.09 %)

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

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0284.3	Replace wave trap and upgrade a bus section at Keystone 500 kV – on the Keystone – Airydale 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0285.1	Replace wave trap at Keystone 500 kV – on the Keystone – Conemaugh 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0285.2	Replace wave trap and relay at Conemaugh 500 kV – on the Conemaugh – Keystone 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0370	Install 500 MVAR Dynamic Reactive Device at Airydale 500 kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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 Customer(s)	Annual Revenue Requirement	Responsible
b0376 Install 300 MVAR capacitor at Conemaugh 500 kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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

~~** 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)
b0519	Replace Keystone circuit breaker 4 Transformer - 20		PENELEC (100%)
b0549	Install 250 MVAR capacitor at Keystone 500 kV		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0550	Install 25 MVAR capacitor at Lewis Run 115 kV substation		AEC (8.588.64%) / APS (1.691.70%) / DPL (12.2412.33%) / JCPL (18.1618.30%) / ME (1.551.56%) / Neptune* (1.771.78%) / PECO (21.7821.94%) / PPL (6.406.45%) / ECP** (0.73%) / PSEG (26.1326.32%) / RE (0.970.98%)
b0551	Install 25 MVAR capacitor at Saxton 115 kV substation		AEC (8.588.64%) / APS (1.691.70%) / DPL (12.2412.33%) / JCPL (18.1618.30%) / ME (1.551.56%) / Neptune* (1.771.78%) / PECO (21.7821.94%) / PPL (6.406.45%) / ECP** (0.73%) / PSEG (26.1326.32%) / RE (0.970.98%)
b0552	Install 50 MVAR capacitor at Altoona 230 kV substation		AEC (8.588.64%) / APS (1.691.70%) / DPL (12.2412.33%) / JCPL (18.1618.30%) / ME (1.551.56%) / Neptune* (1.771.78%) / PECO (21.7821.94%) / PPL (6.406.45%) / ECP** (0.73%) /

			PSEG (26.13 <u>26.32</u> %) / RE (0.97 <u>0.98</u> %)
--	--	--	--

* 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)
b0553 Install 50 MVAR capacitor at Raystown 230 kV substation		AEC (8.588.64 %) / APS (1.691.70 %) / DPL (12.2412.33 %) / JCPL (18.1618.30 %) / ME (1.551.56 %) / Neptune* (1.771.78 %) / PECO (21.7821.94 %) / PPL (6.406.45 %) / ECP** (0.73 %) / PSEG (26.1326.32 %) / RE (0.970.98 %)
b0555 Install 100 MVAR capacitor at Johnstown 230 kV substation		AEC (8.588.64 %) / APS (1.691.70 %) / DPL (12.2412.33 %) / JCPL (18.1618.30 %) / ME (1.551.56 %) / Neptune* (1.771.78 %) / PECO (21.7821.94 %) / PPL (6.406.45 %) / ECP** (0.73 %) / PSEG (26.1326.32 %) / RE (0.970.98 %)
b0556 Install 50 MVAR capacitor at Grover 230 kV substation		AEC (8.588.64 %) / APS (1.691.70 %) / DPL (12.2412.33 %) / JCPL (18.1618.30 %) / ME (1.551.56 %) / Neptune* (1.771.78 %) / PECO (21.7821.94 %) / PPL (6.406.45 %) / ECP** (0.73 %) / PSEG (26.1326.32 %) / RE (0.970.98 %)
b0557 Install 75 MVAR capacitor at East Towanda 230 kV substation		AEC (8.588.64 %) / APS (1.691.70 %) / DPL (12.2412.33 %) / JCPL (18.1618.30 %) / ME (1.551.56 %) / Neptune* (1.771.78 %) / PECO (21.7821.94 %) / PPL (6.406.45 %) / ECP** (0.73 %) / PSEG (26.1326.32 %) / RE (0.970.98 %)

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%)

* 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)
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 (3.743.86 %) / APS (6.266.45 %) / BGE (16.8217.33 %) / DL (0.320.33 %) / JCPL (12.5712.95 %) / ME (6.897.10 %) / PECO (11.5311.88 %) / PEPCO (0.550.57 %) / PPL (15.4215.89 %) / PSEG (20.5221.15 %) / RE (0.720.74 %) / NEPTUNE* (1.701.75 %) / 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%)

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

Required Transmission Enhancements
Customer(s)

Annual Revenue Requirement Responsible

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%)

* 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
Customer(s)

Annual Revenue Requirement Responsible

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 (6.476.48 %) / AEP (2.58%) / APS (6.886.89 %) / BGE (6.576.58 %) / DPL (12.3912.40 %) / Dominion (14.8914.90 %) / JCPL (8.148.15 %) / ME (6.21%) / NEPTUNE* (0.82%) / PECO (21.5621.58 %) / PPL (4.89%) / PSEG (8.188.19 %) / 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%)

* 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
Customer(s)

Annual Revenue Requirement Responsible

b1993	Relocate the Erie South 345 kV line terminal		APS (10.09 <u>10.19</u> %) / ECP** (0.45 %) / HTP (0.49%) / JCPL (5.14 <u>5.19</u> %) / Neptune* (0.54 <u>0.55</u> %) / PENELEC (70.71 <u>71.38</u> %) / PSEG (12.10 <u>12.21</u> %) / 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 <u>33.49</u> %) / ECP** (0.44 %) / HTP (0.44%) / JCPL (8.64 <u>8.72</u> %) / ME (5.52 <u>5.57</u> %) / Neptune (0.86 <u>0.87</u> %) / PENELEC (36.81 <u>37.14</u> %) / PSEG (13.55 <u>13.67</u> %) / 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%)

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

Required Transmission Enhancements
Customer(s)

Annual Revenue Requirement Responsible

b1998	Install a 75 MVAR 115 kV Capacitor at Shawville		PENELEC (100%)
b2016	Reconductor bus at Wayne 115 kV station		PENELEC (100%)

* Neptune Regional Transmission System, LLC

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

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0180	Replace Whitpain 230kV circuit breaker #165	PECO (100%)
b0181	Replace Whitpain 230kV circuit breaker #J105	PECO (100%)
b0182	Upgrade Plymouth Meeting 230kV circuit breaker #125	PECO (100%)
b0205	Install three 28.8Mvar capacitors at Planebrook 35kV substation	PECO (100%)
b0206	Install 161Mvar capacitor at Planebrook 230kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)

* 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)
b0207	Install 161Mvar capacitor at Newlinville 230kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)
b0208	Install 161Mvar capacitor Heaton 230kV 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 230kV 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 500/230 kV substation in PECO, and tap the high side on the Elroy – Whitpain 500 kV and the low side on the North Wales – Perkiomen 230 kV circuit	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†

* Neptune Regional Transmission System, LLC

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

~~*** Hudson Transmission Partners, LLC PECO Energy Company (cont.)~~

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0269	Install a new 500/230 kV substation in PECO, and tap the high side on the Elroy – Whitpain 500 kV and the low side on the North Wales – Perkiomen 230 kV circuit	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
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%)††

* 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

†† 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0269.7	Replace North Wales 230 kV breaker #105	PECO (100%)
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%
b0280.4	Install 18 MVAR capacitor at Waverly 13.8 kV substation	PECO 100%

* 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

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

PECO Energy Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0287	Install 600 MVAR Dynamic Reactive Device in Whitpain 500 kV vicinity		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
b0354	Eddystone – Island Road Upgrade line terminal equipment		PECO 100%

* Neptune Regional Transmission System, LLC

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

~~*** Hudson Transmission Partners, 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)

b0355	Reconductor Master – North Philadelphia 230 kV line		PECO 100%
b0357	Reconductor Buckingham – Pleasant Valley 230 kV		JCPL (37.17 <u>37.89</u> %) / Neptune* (4.46 <u>4.55</u> %) / PSEG (54.14 <u>55.19</u> %) / RE (2.32 <u>2.37</u> %) / 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%)

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 (0.720.73 %) / JCPL (17.3617.52 %) / NEPTUNE* (1.701.72 %) / PECO (44.4744.88 %) / ECP** (0.92%) / PSEG (33.5233.83 %) / RE (1.311.32 %)
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 (17.3017.46 %) / NEPTUNE* (1.691.71 %) / PECO (45.0945.51 %) / ECP** (0.93%) / PSEG (33.6834.00 %) / RE (1.311.32 %)
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%)

* 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%)

* Neptune Regional Transmission System, LLC

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

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 (4.144.17 %) / Neptune (0.44%) / PECO (82.1982.73 %) / ECP (0.33%) / HTP (0.32%) / PSEG (12.1012.18 %) / 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.~~

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 <u>5.12</u> %) / Neptune (0.54%) / PECO (78.85 <u>79.46</u> %) / ECP (0.39 %) / HTP (0.38 %) / PSEG (14.20 <u>14.31</u> %) / RE (0.56 <u>0.57</u> %)
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 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79 %) / PECO (51.08 <u>51.93</u> %) / PEPCO (0.57 <u>0.58</u> %) / ECP** (0.85 %) / PSEG (31.46 <u>31.99</u> %) / RE

			(1.25 <u>1.27</u> %)
--	--	--	----------------------------------

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 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79%) / PECO (51.08 <u>51.93</u> %) / PEPSCO (0.57 <u>0.58</u> %) / ECP** (0.85%) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)
b1398.12	Replace Graysferry 230 kV breaker ‘115’		PECO (100%)
b1398.13	Upgrade Peach Bottom 500 kV breaker ‘225’		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†
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 <u>3.06</u> %) / ME (0.83%) / HTP (0.21%) / PECO (91.36 <u>91.70</u> %) / PEPSCO (1.93 <u>1.94</u> %) / PPL (2.46 <u>2.47</u> %) / 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 <u>88.11</u> %) / PEPSCO (2.79%) / PPL (3.25%)

* Neptune Regional Transmission System, LLC

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

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 <u>100</u> %)
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 <u>70.24</u> %) / JCPL (6.02 <u>6.07</u> %) / ATSI (1.23 <u>1.24</u> %) / PSEG (20.83 <u>21.01</u> %) / RE (0.83 <u>0.84</u> %) / NEPTUNE* (0.59 <u>0.60</u> %) / ECP** (0.45 %) / HTP (0.43%)
b2140	Install a 3rd Emilie 230/138 kV transformer	PECO (97.04 <u>100</u> %) / 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 500kV substation to increase rating of Elroy - Hosensack 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0172.1	Replace wave trap at Alburdis 500kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0284.2	Replace two wave traps at Juniata 500 kV – on the two Juniata – Airydale 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 4.56%) / Neptune* (0.37%) / PECO (1.79%) / PENELEC (0.33%) / PPL (86.63 86.79%) / ECP ** (0.18 %) / PSEG (5.93 5.94%) / RE (0.22%)

* 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)
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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0487.1	Install Lackawanna 500/230 kV transformer and upgrade 230 kV substation and switchyard		PENELEC (16.90 16.93%) / PPL (77.59 77.74%) / ECP** (0.19 %) / PSEG (5.13 5.14%) / 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 6.31%) / DPL (8.65 8.70%) / JCPL (14.54 14.62%) / ME (10.59 10.65%) / Neptune* (1.37 1.38%) / PECO (15.66 15.75%) / PPL (21.02 21.14%) / ECP** (0.57 %) / PSEG (20.56 20.68%) / RE (0.77%)

*Neptune Regional Transmission System, LLC

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

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

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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

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

~~*** Hudson Transmission Partners, 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%)
b1527	Construct a new 230/69 kV North Lancaster substation. The sub will be supplied from the SAKR-BERK 230kV Line	PPL (100%)
b1527.1	Construct new 69/138 kV transmission from North Lancaster 230/69 kV sub to Brecknock and Honeybrook areas	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 69kV 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 69kV lines		PPL (100%)
b1534 Rebuild 1.4 miles of the Sunbury-Milton 69kV		PPL (100%)
b1601 Re-configure the Breinigsville 500 kV substation with addition two 500 kV circuit breakers		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†
b1602 Re-configure the Elimspport 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 - Elimspport 230 kV line		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)
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 1.11%) / ECP ** (0.37 %) / HTP (0.37 %) / JCPL (9.64 9.68%) / ME (19.42 19.56%) / Neptune* (0.75 0.76%) / PECO (6.04 6.06%) / PPL (50.57 50.95%) / PSEG (11.35 11.43%) / RE (0.45%)
b2006.1	Install North Lancaster 500/230 kV substation (500 kV portion)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* Neptune Regional Transmission System, LLC

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

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

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%)

* 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)
b0367.1	Reconductor circuit "23035" for Dickerson – Quince Orchard 230 kV	AEC (1.78%) / BGE (26.52 <u>26.54</u> %) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / Neptune* (0.25%) / PECO (4.79 <u>4.80</u> %) / PEPCO (52.46 <u>52.50</u> %) / PPL (3.23%) / PSEG (3.81 <u>3.82</u> %) / ECP** (0.08 %)
b0367.2	Reconductor circuit "23033" for Dickerson – Quince Orchard 230 kV	AEC (1.78%) / BGE (26.52 <u>26.54</u> %) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / Neptune* (0.25%) / PECO (4.79 <u>4.80</u> %) / PEPCO (52.46 <u>52.50</u> %) / PPL (3.23%) / PSEG (3.81 <u>3.82</u> %) / 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.~~

***~~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-9.

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
0512	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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.7	Advance n0772 (Replace Chalk Point 230 kV breaker (1A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.8	Advance n0773 (Replace Chalk Point 230 kV breaker (1B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.9	Advance n0774 (Replace Chalk Point 230 kV breaker (2A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.10	Advance n0775 (Replace Chalk Point 230 kV breaker (2B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.11	Advance n0776 (Replace Chalk Point 230 kV breaker (2C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.12	Advance n0777 (Replace Chalk Point 230 kV breaker (3A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.13	Advance n0778 (Replace Chalk Point 230 kV breaker (3B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.14	Advance n0779 (Replace Chalk Point 230 kV breaker (3C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.15	Advance n0780 (Replace Chalk Point 230 kV breaker (4A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.16	Advance n0781 (Replace Chalk Point 230 kV breaker (4B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.17	Advance n0782 (Replace Chalk Point 230 kV breaker (5A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.18	Advance n0783 (Replace Chalk Point 230 kV breaker (5B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.19	Advance n0784 (Replace Chalk Point 230 kV breaker (6A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.20	Advance n0785 (Replace Chalk Point 230 kV breaker (6B) with 80 kA breaker	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.21	Advance n0786 (Replace Chalk Point 230 kV breaker (7B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.22	Advance n0787 (Replace Chalk Point 230 kV breaker (8A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.23	Advance n0788 (Replace Chalk Point 230 kV breaker (8B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.24	Advance n0789 (Replace Chalk Point 230 kV breaker (7A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.25	Advance n0790 (Replace Chalk Point 230 Kv breaker (1C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.26	Advance n0791 (Replace Chalk Point 230 Kv breaker (4C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.27	Advance n0792 (Replace Chalk Point 230 Kv breaker (5C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0512.28	Advance n0793 (Replace Chalk Point 230 Kv breaker (6C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.29	Advance n0794 (Replace Chalk Point 230 Kv breaker (7C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* 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)
b0561	Install 300 MVAR capacitor at Dickerson Station "D" 230 kV substation	AEC (8.588.64 %) / APS (1.691.70 %) / DPL (12.2412.33 %) / JCPL (18.1618.30 %) / ME (1.551.56 %) / Neptune* (1.771.78 %) / PECO (21.7821.94 %) / PPL (6.406.45 %) / ECP** (0.73 %) / PSEG (26.1326.32 %) / RE (0.970.98 %)
b0562	Install 500 MVAR capacitor at Brighton 230 kV substation	AEC (8.588.64 %) / APS (1.691.70 %) / DPL (12.2412.33 %) / JCPL (18.1618.30 %) / ME (1.551.56 %) / Neptune* (1.771.78 %) / PECO (21.7821.94 %) / PPL (6.406.45 %) / ECP** (0.73 %) / PSEG (26.1326.32 %) / RE (0.970.98 %)
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%)

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%)

* 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)
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%)

* 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)
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		PEPCO (100%)

	kA breaker		
--	------------	--	--

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 (2.392.40 %) / APS (3.823.83 %) / BGE (65.7265.87 %) / DPL (4.434.44 %) / JCPL (3.933.94 %) / ME (2.16%) / Neptune* (0.39%) / HTP (0.10 %) / PECO (8.358.37 %) / PPL (2.832.84 %) / ECP** (0.13 %) / PSEG (5.535.54 %) / RE (0.22%)
b1593	Reconductor the Bowie - Burtonsville 230 kV circuit and upgrade terminal equipments at Bowie and Burtonsville 230 kV substations	AEC (2.392.40 %) / APS (3.823.83 %) / BGE (65.7265.87 %) / DPL (4.434.44 %) / JCPL (3.933.94 %) / ME (2.16%) / Neptune* (0.39%) / HTP (0.10 %) / PECO (8.358.37 %) / PPL (2.832.84 %) / ECP** (0.13 %) / PSEG (5.535.54 %) / 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 (2.382.39 %) / APS (3.843.85 %) / BGE (65.7265.87 %) / DPL (4.444.45 %) / JCPL (3.933.94 %) / ME (2.16%) / Neptune* (0.39%) / HTP (0.10 %) / PECO (8.338.35 %) / PPL (2.832.84 %) / ECP** (0.13 %) / PSEG (5.535.54 %) / 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 (2.382.39 %) / APS (3.843.85 %) / BGE (65.7265.87 %) / DPL (4.444.45 %) / JCPL (3.933.94 %) / ME (2.16%) / Neptune* (0.39%) / HTP (0.10 %) / PECO (8.338.35 %) / PPL (2.832.84 %) / ECP** (0.13 %) / PSEG (5.535.54 %) / RE (0.22%)
b1596	Reconductor the Dickerson station “H” – Quince Orchard 230 kV	AEC (0.80%) / BGE (33.68%) / DPL (2.09%) / PECO (3.07%) / PEPCO

	'23032' circuit and upgrade terminal equipments at Dickerson station "H" and Quince Orchard 230 kV substations		(60.36%)
--	---	--	----------

* 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)
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 100MVAR capacitor at West Orange 138kV 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 230/138kV transformer at Metuchen substation	PSEG (99.80%) / RE (0.20%)
b0162	Upgrade the Edison – Meadow Rd 138kV “Q” circuit	PSEG (100%)
b0163	Upgrade the Edison – Meadow Rd 138kV “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 1.76%) / JCPL (25.94 26.50%) / Neptune* (40.62 40.85%) / PSEG (59.59 60.89%) / 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 500kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0184	Replace Hudson 230kV circuit breakers #1-2		PSEG (100%)
b0185	Replace Deans 230kV circuit breakers #9-10		PSEG (100%)
b0186	Replace Essex 230kV 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

~~** 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)
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 (96.77 100%) / 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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0358	Reconductor the PSEG portion of Buckingham – Pleasant Valley 230 kV, replace wave trap and metering transformer		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)
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 wavetrap 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 wavetrap 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 <u>42.63</u> %) / Neptune* (3.59 <u>3.65</u> %) / PSEG (50.59 <u>51.45</u> %) / RE (2.23 <u>2.27</u> %) – 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%)
---------	---------------------------------------	--	-------------

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0446.3	Upgrade Bayway 138 kV breaker #6-7	PSEG (100%)
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 <u>96.40</u> %) / RE (3.533.60 %)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†

* 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

†† 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)
b489.1	Replace Athenia 230 kV breaker 31H		PSEG (100%)
b489.2	Replace Bergen 230 kV breaker 10H		PSEG (100%)
b489.3	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 <u>5.14</u> %) / ComEd (0.29%) / Dayton (0.03%) / DPL (1.76 <u>1.78</u> %) / JCPL (32.73 <u>33.04</u> %) / Neptune* (6.32 <u>6.38</u> %) / PECO (10.04 <u>10.14</u> %) / PENELEC (0.56 <u>0.57</u> %) / ECP** (0.95 %) / PSEG (41.10 <u>40.71</u> %) / RE (1.52 <u>1.53</u> %) ††
b0489.5	Replace Roseland 230 kV breaker '42H' with 80 kA		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0489.6	Replace Roseland 230 kV breaker '51H' with 80 kA	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.7	Replace Roseland 230 kV breaker '71H' with 80 kA	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0489.8	Replace Roseland 230 kV breaker '31H' with 80 kA	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0489.9	Replace Roseland 230 kV breaker '11H' with 80 kA	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.10	Replace Roseland 230 kV breaker '21H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0489.11	Replace Roseland 230 kV breaker '32H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.12	Replace Roseland 230 kV breaker '12H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0489.13	Replace Roseland 230 kV breaker '52H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.14	Replace Roseland 230 kV breaker '41H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0489.15	Replace Roseland 230 kV breaker '72H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0498	Loop the 5021 circuit into New Freedom 500 kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0565	Install 100 MVAR capacitor at Cox's Corner 230 kV substation		PSEG (100%)

* 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)
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%)

* 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)
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%)

*Neptune Regional Transmission System, LLC

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%)

*Neptune Regional Transmission System, LLC

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%)

*Neptune Regional Transmission System, LLC

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%)

*Neptune Regional Transmission System, LLC

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0829.6	Replace Branchburg 500 kV breaker 91X	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0829.9	Replace Branchburg 230 kV breaker 102H	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)
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

*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)
b0831	Replace 138/13 kV transformers with 230/13 kV units as part of Branchburg – Hudson 500 kV project		ComEd (2.51 <u>2.57</u> %) / Dayton (0.09%) / PENELEC (2.75 <u>2.82</u> %) / ECP** (2.45 %) / PSEG (88.74 <u>90.97</u> %) / RE (3.46 <u>3.55</u> %)
b0832	Build Hudson 500 kV switching station as part of Branchburg – Hudson 500 kV project		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0833	Build Roseland 500 kV switching station as part of Branchburg – Hudson 500 kV project		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0834	Convert the E-1305/F-1306 to one 230 kV circuit as part of Branchburg – Hudson 500 kV project		ComEd (2.51 <u>2.57</u> %) / Dayton (0.09%) / PENELEC (2.75 <u>2.82</u> %) / ECP** (2.45%) / PSEG (88.74 <u>90.97</u> %) / RE (3.46 <u>3.55</u> %)
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 <u>2.57</u> %) / Dayton (0.09%) / PENELEC (2.75 <u>2.82</u> %) / ECP** (2.45%) / PSEG (88.74 <u>90.97</u> %) / RE (3.46 <u>3.55</u> %)
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 <u>2.57</u> %) / Dayton (0.09%) / PENELEC (2.75 <u>2.82</u> %) / ECP** (2.45%) / PSEG (88.74 <u>90.97</u> %) / RE (3.46 <u>3.55</u> %)
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 (29.04 <u>29.27</u> %) / NEPTUNE* (2.74 <u>2.76</u> %) / PSEG (64.85 <u>65.42</u> %) / RE (2.53 <u>2.55</u> %) / ECP** (0.87 %)
b1018	Reconductor South Mahwah - Waldwick 345 kV K-3411 circuit		JCPL (29.18 <u>29.44</u> %) / NEPTUNE* (2.74 <u>2.76</u> %) / PSEG (64.68 <u>65.25</u> %) / RE (2.53 <u>2.55</u> %) / 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%)

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%)

*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)
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 (95.8396.18%) / RE (3.813.82%)
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 (0.230.28%) / BGE (0.971.18%) / ComEd (2.322.83%) / Dayton (0.130.16%) / JCPL (1.171.43%) / Neptune (0.070.09%) / HTP (+16.05%) + PENELEC (2.973.63%) / PEPSCO (1.041.27%) / ECP (2.11%) / PSEG (70.1685.73%) / RE (2.783.40%)

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 (0.230.28 %) / BGE (0.971.18 %) / ComEd (2.322.83 %) / Dayton (0.130.16 %) / JCPL (1.171.43 %) / Neptune (0.070.09 %) / HTP (16.05 %) / PENELEC (2.973.63 %) / PEPCO (1.041.27 %) / ECP (2.11 %) / PSEG (70.1685.73 %) / RE (2.783.40 %)
b1304.3	Build second 230 kV underground cable from Bergen to Athenia	AEC (0.230.28 %) / BGE (0.971.18 %) / ComEd (2.322.83 %) / Dayton (0.130.16 %) / JCPL (1.171.43 %) / Neptune (0.070.09 %) / HTP (16.05 %) / PENELEC (2.973.63 %) / PEPCO (1.041.27 %) / ECP (2.11 %) / PSEG (70.1685.73 %) / RE (2.783.40 %)
b1304.4	Build second 230 kV underground cable from Hudson to South Waterfront	AEC (0.230.28 %) / BGE (0.971.18 %) / ComEd (2.322.83 %) / Dayton (0.130.16 %) / JCPL (1.171.43 %) / Neptune (0.070.09 %) / HTP (16.05 %) / PENELEC (2.973.63 %) / PEPCO (1.041.27 %) / ECP (2.11 %) / PSEG (70.1685.73 %) / RE (2.783.40 %)

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 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79%) / PECO (51.08 <u>51.93</u> %) / PEPSCO (0.57 <u>0.58</u> %) / ECP** (0.85%) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)
b1398.1	Install shunt reactor at Gloucester to offset cable charging		JCPL (12.82 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79%) / PECO (51.08 <u>51.93</u> %) / PEPSCO (0.57 <u>0.58</u> %) / ECP** (0.85%) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)
b1398.2	Reconfigure the Cuthbert station to breaker and a half scheme		JCPL (12.82 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79%) / PECO (51.08 <u>51.93</u> %) / PEPSCO (0.57 <u>0.58</u> %) / ECP** (0.85%) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)

b1398.3	Build a second 230 kV parallel overhead circuit from Mickelton – Gloucester		JCPL (12.82 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79%) / PECO (51.08 <u>51.93</u> %) / PEPCO (0.57 <u>0.58</u> %) / ECP** (0.85%) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)
---------	---	--	---

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 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79%) / PECO (51.08 <u>51.93</u> %) / PEPCO (0.57 <u>0.58</u> %) / ECP ** (0.85 %) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)
b1398.7	Reconductor the Camden – Richmond 230 kV circuit (PSEG portion) and upgrade terminal equipments at Camden substations	JCPL (12.82 <u>13.03</u> %) / NEPTUNE (1.18 <u>1.20</u> %) / HTP (0.79%) / PECO (51.08 <u>51.93</u> %) / PEPCO (0.57 <u>0.58</u> %) / ECP ** (0.85 %) / PSEG (31.46 <u>31.99</u> %) / RE (1.25 <u>1.27</u> %)
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%)

* 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)
b1410	Replace Salem 500 kV breaker '11X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1411	Replace Salem 500 kV breaker '12X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b1412	Replace Salem 500 kV breaker '20X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1413	Replace Salem 500 kV breaker '21X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b1414	Replace Salem 500 kV breaker '31X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1415	Replace Salem 500 kV breaker '32X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
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 (10.34 10.48%) / Neptune* (0.98 1.00%) / HTP (0.75%) / PECO (30.81 31.30%) / ECP** (0.82%) / PSEG (54.17 55.03%) / RE (2.16 2.19%)
b1589	Re-configure the Kearny 230 kV substation and loop the P-2216-1 (Essex - NJT Meadows) 230 kV circuit		ATSI (8.00 10.02%) / HTP (20.18%) / PENELEC (7.77 9.74%) / PSEG (61.59 77.16%) / RE (2.46 3.08%)
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 3.06%) / ME (0.83%) / HTP (0.21%) / PECO (91.36 91.70%) / PEPCO (1.93 1.94%) / PPL (2.46 2.47%) / 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.

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 (4.964.97 %) / JCPL (44.2044.34 %) / NEPTUNE* (0.53%) / HTP (0.15%) / ECP** (0.16%) / PSEG (48.0848.23 %) / RE (1.921.93 %)
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.~~

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 96.16%) / HTP (24.49%) / RE (2.90 3.84%)

*Neptune Regional Transmission System, LLC

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

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0218 Install third Wylie Ridge 500/345kV transformer	As specified under the procedures detailed in Attachment H-18B, Section 1.b	AEC (11.83%) / DPL (19.40%) / Dominion (13.81%) / JCPL (15.56%) / PECO (39.40%)
b0220 Upgrade coolers on Wylie Ridge 500/345 kV #7		AEC (11.83%) / DPL (19.40%) / Dominion (13.81%) / JCPL (15.56%) / PECO (39.40%)
b0229 Install fourth Bedington 500/138 kV		APS (50.98%) / BGE (13.42%) / DPL (2.03%) / Dominion (14.50%) / ME (1.43%) / PEPCO (17.64%)
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%)

* 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)
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

~~** 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

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
		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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
b0347.2	Build new Mt. Storm – Meadow Brook 500 kV circuit	As specified under the procedures detailed in Attachment H-18B, Section 1.b

* 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)
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

~~** 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)
b0347.5	Replace Harrison 500 kV breaker HL-3	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.6	Upgrade (per ABB inspection) breaker HL-6	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.8	Upgrade (per ABB inspection) breaker HL-8	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.9	Upgrade (per ABB inspection) breaker HL-10	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.10	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-1	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.11	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-3	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.12	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-4	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.13	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-6	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.14	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-7	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.15	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-9	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.16	Upgrade (per ABB inspection) Harrison 500 kV breaker 'HL-3'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.17	Replace Meadow Brook 138 kV breaker 'MD-10'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.18	Replace Meadow Brook 138 kV breaker 'MD-11'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.19	Replace Meadow Brook 138 kV breaker 'MD-12'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.20	Replace Meadow Brook 138 kV breaker 'MD-13'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.21	Replace Meadow Brook 138 kV breaker 'MD-14'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.22	Replace Meadow Brook 138 kV breaker 'MD-15'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.23	Replace Meadow Brook 138 kV breaker 'MD-16'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.24	Replace Meadow Brook 138 kV breaker 'MD-17'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.25	Replace Meadow Brook 138 kV breaker 'MD-18'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.26	Replace Meadow Brook 138 kV breaker 'MD-22#1 CAP'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.27	Replace Meadow Brook 138 kV breaker 'MD-4'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.28	Replace Meadow Brook 138 kV breaker 'MD-5'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.29	Replace Meadowbrook 138 kV breaker 'MD-6'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.30	Replace Meadowbrook 138 kV breaker 'MD-7'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.31	Replace Meadowbrook 138 kV breaker 'MD-8'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.32	Replace Meadowbrook 138 kV breaker 'MD-9'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.33	Replace Meadow Brook 138kV breaker 'MD-1'	APS (100%)
b0347.34	Replace Meadow Brook 138kV 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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%)

* 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)
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 138kV 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0419	Install a breaker failure auto-restoration scheme at Bedington 500 kV for the failure of the #1 and #2 breakers	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 138kV circuit with 954 ACSR	APS (100%)

* 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)
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 AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0492	Construct a Welton Spring to Kemptown 765 kV line (APS equipment)	As specified under the procedures detailed in Attachment H-19B AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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

~~**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)
b0492.5	Replace Eastalco 230 kV breaker D-31	APS (100%)
b0495	Replace existing Kammer 765/500 kV transformer with a new larger transformer	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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

~~**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)

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 97.69%) / 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 82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37 6.38%) / 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 82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.37 6.38%) / 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 (81.9682.01 %) / DPL (0.85%) / JCPL (1.75%) / ME (6.376.38 %) / 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 (81.9682.01 %) / DPL (0.85%) / JCPL (1.75%) / ME (6.376.38 %) / 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 (81.9682.01 %) / DPL (0.85%) / JCPL (1.75%) / ME (6.376.38 %) / 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 (81.9682.01 %) / DPL (0.85%) / JCPL (1.75%) / ME (6.376.38 %) / 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 (81.9682.01 %) / DPL (0.85%) / JCPL (1.75%) / ME (6.376.38 %) / 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 (81.9682.01 %) / DPL (0.85%) / JCPL (1.75%) / ME (6.376.38 %) / 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)
b0675.9	Convert Walkersville Substation from 138 kV to 230 kV	AEC (1.02%) / APS (81.96 <u>82.01</u> %) / DPL (0.85%) / JCPL (1.75%) / ME (6.37 <u>6.38</u> %) / 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) 230kV	AEC (0.64%) / APS (86.70 <u>86.77</u> %) / DPL (0.53%) / JCPL (1.93%) / ME (4.04 <u>4.05</u> %) / 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) 230kV	AEC (0.64%) / APS (86.70 <u>86.77</u> %) / DPL (0.53%) / JCPL (1.93%) / ME (4.04 <u>4.05</u> %) / 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 138kV 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%)

*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)

b0684	Reconductor Guilford – South Chambersburg with 954 ACSR		APS (100%)
b0685	Replace Ringgold 230/138 kV #3 with larger transformer		APS (71.93 <u>72.06</u> %) / JCPL (4.174.18 %) / ME (6.796.80 %) / NEPTUNE* (0.38%) / PECO (4.054.06 %) / PENELEC (5.885.89 %) / ECP** (0.18 %) / PSEG (6.376.38 %) / 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%)

*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)

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%)

*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)

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%)

*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)

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 <u>78.77</u> %) / PENELEC (14.08 <u>14.11</u> %) / ECP ** (0.23 %) / PSEG (6.83 <u>6.85</u> %) / 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%) / PEPCO (30.48%)
b1171.3	Install six 500 kV breakers and remove BOL1 500 kV breaker at Black Oak		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

*Neptune Regional Transmission System, LLC

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

~~***Hudson Transmission Partners, 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)
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%)

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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* 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)
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%)
b0545	Remove instantaneous reclose from Eastalco circuit breaker D-28		APS (100%)
b0559	Install 200 MVAR capacitor at Meadow Brook 500 kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0560	Install 250 MVAR capacitor at Kemptown 500 kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1804	Install a new 600 MVAR SVC at Meadowbrook 500kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1816.1	Replace relaying at the Mt. Airy substation on the Carroll - Mt. Airy 230 kV line	APS (100%)

* 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)
b1816.2	Adjust the control settings of all existing capacitors at Mt Airy 34.5kV, Monocacy 138kV, Ringgold 138kV 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 Catocin - 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 Catocin 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 138kV 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%)

* 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)
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%)

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 63kA 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 40kA rated breaker	APS (100%)
b2099	Revise the reclosing of Ridgeley 138 kV breaker 'RC1'	APS (100%)
b2100	Replace Ridgeley 138 kV breaker 'WC4' with 40kA rated breaker	APS (100%)
b2101	Replace Ridgeley 138 kV breaker '1 XFMR OCB' with 40kA rated breaker	APS (100%)
b2102	Replace Armstrong 138 kV breaker 'GARETTRJCT' with 40kA rated breaker	APS (100%)

* 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)
b2103	Replace Armstrong 138 kV breaker 'BURMA' with 40kA rated breaker	APS (100%)
b2104	Replace Armstrong 138 kV breaker 'KITANNING' with 40kA rated breaker	APS (100%)
b2105	Replace Armstrong 138 kV breaker 'KISSINGERJCT' with 40kA rated breaker	APS (100%)
b2106	Replace Wylie Ridge 345 kV breaker 'WK-1' with 63kA rated breaker	APS (100%)
b2107	Replace Wylie Ridge 345 kV breaker 'WK-2' with 63kA rated breaker	APS (100%)
b2108	Replace Wylie Ridge 345 kV breaker 'WK-3' with 63kA rated breaker	APS (100%)
b2109	Replace Wylie Ridge 345 kV breaker 'WK-4' with 63kA rated breaker	APS (100%)
b2110	Replace Wylie Ridge 345 kV breaker 'WK-6' with 63kA rated breaker	APS (100%)
b2111	Replace Wylie Ridge 138 kV breaker 'WK-7' with 63kA 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 63kA 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 138kV 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 138kV Capacitor bank adjust turn-on voltage to 1.0pu with a high limit of 1.04pu, For Crupperneck and Powell Mountain 138kV Capacitor Banks adjust turn-on voltage to 1.01pu with a high limit of 1.035pu	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

(15) Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0164 Reconductor Wolfs - Oswego 138kV with 636 ACSS		ComEd (100%)
b0236.1 Build new West Loop 138 kV substation		ComEd (100%)
b0236.2 Install two new 345 kV circuits from Crawford and Taylor to West Loop and two new 345/138 kV auto-transformers at West Loop.		ComEd (100%)
b0299 Upgrade line 0108 – LaSalle County – Mazon 138 kV with 3.4 miles of 664.8 ACSS		ComEd (100%)
b0301 Increase capacity of Wolfs – Oswego 138 kV line 14304		ComEd (100%)
b0302 Dixon – McGirr 138kV – Replace small piece of conductor on line 10714 and install 138 kV CB at Sandwich		ComEd (100%)
b0303 Install 345 kV CB and change Elwood 345 kV BT to normally closed		ComEd (100%)
b0304 Reconductor line 11106 Electric Junction – North Aurora tap 4 miles		ComEd (100%)
b0305 Normally open East Frankfort 138 kV red-blue bus tie		ComEd (100%)
b0306 Reconductor line Electric Junction – North Aurora (11104 0.3 miles)		ComEd (100%)
b0377 Install a second Byron – Wempletown 345 kV circuit		AEC (0.60%) / BGE (1.32%) / ComEd (85.95 <u>86.01</u> %) / Dayton (0.73%) / DL (1.01%) / DPL (0.87%) / Dominion (2.45 <u>2.46</u> %) / JCPL (1.41%) / Neptune* (0.14%) / PECO (1.79%) / PEPCO (1.20%) / PSEG (2.37%) / RE (0.09%) / ECP** (0.07%)

*Neptune Regional Transmission System, LLC

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

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0379	Reconductor 10301 & 10302 Lisle – Lombard 138 kV circuits		ComEd (100%)
b0380	Reconductor 17713 from Burnham – Wildwood and 7611 from Wildwood to the Beverly tap		ComEd (100%)
b0394	Reconductor 2.8 miles of Wolfs – Frontenac 138 kV line 14310		ComEd (100%)
b0461	Install a 115.2 MVAR capacitor at Will County 138 kV		ComEd (100%)
b0462	Install a 57.6 MVAR capacitor at Joliet 138 kV		ComEd (100%)
b0463	Install a 115.2 MVAR capacitor at East Frankfort 138 kV		ComEd (100%)
b0464	Increase capacity of 138 kV line 14304 between Oswego TDC 592 to Montgomery TSS 106		ComEd (100%)
b0465	Install a 115.2 MVAR capacitor at Libertyville 138 kV		ComEd (100%)
b0466	Install a 115.2 MVAR capacitor at Prospect Heights 138 kV		ComEd (100%)
b0510	Install two 115.3 MVAR capacitors at Elmhurst 138 kV		ComEd (100%)
b0511	Reconductor the Pleasant Valley – Woodstock 138 kV line		ComEd (100%)
b0546	Install a 20 MVAR capacitor at Shorewood substation		ComEd (100%)
b0547	Install a 15 MVAR capacitor at Wilmington substation		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0569.1	Install a second East Frankfort 345/138 kV autotransformer		ComEd (100%)
b0569.2	Reconductor County Club Hills – Matteson 138 kV circuit		ComEd (100%)
b0661	Replace existing baseline upgrade to install a 2 nd Wolfs 345/138 kV transformer by installing 345/138 kV transformer at Plano ‘Red’		ComEd (100%)
b0662	Add a breaker to Aptakisic 138 kV to split the line in two for the 11708 contingency		ComEd (100%)
b0663	Reconductor East Frankfort - Goodings Grove 345 kV ‘Red’ line 11602		ComEd (100%)
b0686	Install a 115.2 MVAR switched capacitor at East Frankfort 138 kV ‘Red’		ComEd (100%)
b0687	Install a 115.2 MVAR switched capacitor at Plano 138 kV ‘Red’		ComEd (100%)
b0688	Install a 115.2 MVAR switched capacitor at Plano 138 kV ‘Blue’		ComEd (100%)
b0689	Install a 115.2 MVAR switched capacitor at McCook 138 kV ‘Red’		ComEd (100%)
b0690	Install a 115.2 MVAR switched capacitor at McCook 138 kV ‘Blue’		ComEd (100%)
b0691	Install a 115.2 MVAR switched capacitor at Wayne 138 kV ‘Blue’		ComEd (100%)
b0692	Install a 115.2 MVAR switched capacitor at Wayne 138 kV ‘Red’		ComEd (100%)
b0693	Install a 115.2 MVAR switched capacitor at Crawford 138 kV ‘Blue’		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0694	Install a 115.2 MVAR switched capacitor at Crawford 138 kV 'Red'		ComEd (100%)
b0695	Add a 300 MVAR SVC at Elmhurst 138 kV 'Red'		ComEd (100%)
b0696	Add a 300 MVAR SVC at Elmhurst 138 kV 'Blue'		ComEd (100%)
b0697	Reconductor 0902 Frankfort – New Lenox 138 kV circuit		ComEd (100%)
b0698	Increase capacity of 0902 East Frankfort TSS 66 – Davis Creek TSS 86 Tap 138 kV ~ 1.5 miles		ComEd (100%)
b0699	Install a second 345/138 kV transformer at Plano 'Red'		ComEd (100%)
b0700	Install a third 345/138 kV transformer at Goodings Grove 'Red'		ComEd (100%)
b0738	Install a 115.2 MVAR switched capacitor at Bedford Park 138 kV 'Red'		ComEd (100%)
b0739	Install a 115.2 MVAR switched capacitor at Bedford Park 138 kV 'Blue'		ComEd (100%)
b0740	Install a 57.6 MVAR switched capacitor at Wolfs 138 kV		ComEd (100%)
b0740.2	Increase the size of the Wolfs 138 kV Blue cap from 57.6 to 115.2 MVAR		ComEd (100%)
b0741	Reconductor Waukegan – Gurnee 138 kV line 1607		ComEd (100%)
b0742	Reconductor Waukegan – Gurnee 138 kV line 1603		ComEd (100%)
b1054	Change relay settings on Byron - Wempletown 345 kV to bring relay trip setting up to 115% of Rate C		ComEd (100%)
b1097	Add a 138 kV bus tie CB and two other 138 kV CB's at Round Lake		ComEd (100%)
b1157	Replace the 345 kV bus tie CB 2-3 at Lisle		ComEd (100%)
b1158	Add a 57.6 MVAR capacitor at Prospect Heights 138 kV Blue		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1256	Replace the State Line Station 7 138 kV breaker 'Bustie 742'		ComEd (100%)
b1257	Eliminate the J322 138 kV breaker 'L0906' and move customer to distribution system		ComEd (100%)
b1258	Revise the reclosing on the Elmhurst 138 kV bus B breaker '135 12008'		ComEd (100%)
b1259	Revise the reclosing on the Elmhurst 138 kV bus R breaker '135 13510'		ComEd (100%)
b1263	Move line 16703 termination from bus 4 to bus 3 at Electric Junction		ComEd (100%)
b1264	Replace 345 kV bus ties 1-2 and 1-9 at Plano to increase rating on line 16703		ComEd (100%)
b1265	Reconductor approximately 2 miles of Will County – Romeoville 138 kV portion of L1809 with ACSS conductor		ComEd (100%)
b1266	Normally close 345 kV BT 2-3 at TSS 103 Lisle, replace one 345 kV circuit breaker on BT 1-2 at TSS 103 Lisle		ComEd (100%)
b1266.1	Revise reclosing on Des Plaines 138 kV breaker '46 4610		ComEd (100%)
b1300	Reconductor the East Frankfort – Goodings Grove 345 kV 11601 line		ComEd (100%)
b1301	Upgrade both Garfield – Taylor 345 kV lines (17723 and 17724)		ComEd (100%)
b1511	Reconductor a section of L1811 & replace station conductor		ComEd (100%)
b1512	Reconductor 1.493 mi of L0902 with 477 ACSR cond.		ComEd (100%)
b1513	Reconductor a section of L0901		ComEd (100%)
b1514	Replace line trap on L1210 at Station 12 Dresden		ComEd (100%)
b1515	Reconductor a section of L0902		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1516	Reconductor a section of L11102		ComEd (100%)
b1517	Replace circuit switcher 0303		ComEd (100%)
b1518	Install a 4th Lisle auto transformer		ComEd (100%)
b1519.1	New 345 kV transmission from Crawford to Fisk to Taylor		ComEd (100%)
b1519.2	Two 345/138 kV autotransformers at Fisk		ComEd (100%)
b1519.3	Two 138 kV 115.2 MVAR cap banks at Fisk		ComEd (100%)
b1579	Revise reclosing and upgrade relays at State Line 138 kV breaker '7 L0707'		ComEd (100%)
b1580	Revise reclosing and upgrade relays at State Line 138 kV breaker '7 L0761'		ComEd (100%)
b1581	Revise reclosing and upgrade relays at Cherry Valley 138 kV breaker '156 15622'		ComEd (100%)
b1582	Replace Lombard 138 kV breaker '120 12008'		ComEd (100%)
b1658	Replace Lombard 138kV breaker '120 10301' with 63kA breaker		ComEd (100%)
b1772	Reconductor approximately 16 miles from Nelson to Electric Junction 345 kV and replace associated terminal equipment. Same as n2092		ATSI (3.81%) / ComEd (94.60%) / Dayton (1.03%) / DL (0.56%)
b1773	Reconductor approximately 12.51 miles of East Frankfort - Crete 345 kV line 6607. Same as n2089		AEC (1.97 1.98%) / AEP (23.38 23.50%) / ATSI (37.10 37.29%) / Dayton (7.06 7.10%) / DL (6.65 6.68%) / DPL (2.80 2.81%) / JCPL (4.96 4.99%) / Neptune* (0.50%) / HTP (0.25%) / PECO (6.26 6.29%) / ECP** (0.25%) / PSEG (8.48 8.52%) / RE (0.34%)

*Neptune Regional Transmission System, LLC

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

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1774	Reconductor approximately 11.75 miles of Crete - St. John 345 kV. Same as n2088		AEC (1.96 <u>1.97</u> %) / AEP (21.56 <u>21.67</u> %) / ATSI (36.52 <u>36.70</u> %) / BGE (2.94 <u>2.96</u> %) / Dayton (6.85 <u>6.88</u> %) / DL (6.60 <u>6.63</u> %) / DPL (2.80 <u>2.81</u> %) / JCPL (4.91 <u>4.94</u> %) / Neptune* (0.49%) / HTP (0.24%) / PECO (6.22 <u>6.25</u> %) / ECP** (0.25%) / PSEG (8.33 <u>8.37</u> %) / RE (0.33%)
b1774.1	Reconductor approximately 1 mile of Crete - St. John 345 kV in NIPS/MISO. Same as n2088		AEC (1.96 <u>1.97</u> %) / AEP (21.56 <u>21.67</u> %) / ATSI (36.52 <u>36.70</u> %) / BGE (2.94 <u>2.96</u> %) / Dayton (6.85 <u>6.88</u> %) / DL (6.60 <u>6.63</u> %) / DPL (2.80 <u>2.81</u> %) / JCPL (4.91 <u>4.94</u> %) / Neptune* (0.49%) / HTP (0.24%) / PECO (6.22 <u>6.25</u> %) / ECP** (0.25%) / PSEG (8.33 <u>8.37</u> %) / RE (0.33%)
b1775	Reconductor 10.7 miles of Marengo - Pleasant Valley 138 kV and replace associated terminal and protective equipment. Same as n2090		ComEd (100%)
b1776	Reconductor 0.157 miles of McGirr Road - H440; RT 138 kV line of 477 ACSR		ComEd (100%)
b1777	Reconductor approximately 11.5 miles and replace associated terminal equipment of Marengo; TB - Woodstock; B 138 kV line. Same as n2093		ComEd (100%)
b1778	Reconductor 7.181 miles of 477 ACSR and upgrade station conductor at TSS 186 Steward1		ComEd (100%)
b1779	Reconductor 5.242 miles of Kickapoo Creek - Marseilles Tap 138 kV line of 477 ACSR		ComEd (100%)
b1841	Install the 3rd 345/138 kV transformer at TSS 86 Davis Creek		ComEd (100%)
b1842	Reconductor 0.6 miles of 138 kV line 5104 from TSS 115		ComEd (100%)

	Bedford Park to Clearing Tap		
--	------------------------------	--	--

*Neptune Regional Transmission System, LLC

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

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1843	Replace 1200A line trap on 138 kV line 7611 at TSS 76 Blue Island 138 kV		ComEd (100%)
b1844	Reconductor 2.1 miles of 138 kV line 10301 from TSS 102 Lisle to York Tap with ACSS		ComEd (100%)
b1845	Reconductor 2.4 miles of 138 kV line 10302 from TSS 103 Lisle to York Tap with ACSS		ComEd (100%)
b1846	Upgrade 900 kcmil ACSR station conductor on 138 kV line 1803 at STA 18 Will County		ComEd (100%)
b1847	Add 230 MVAR of capacitors at TSS 141 Pleasant Valley		ComEd (100%)
b1848	Upgrade relays and wavetraps on 138 kV line 4605 at TSS 46 Des Plaines		ComEd (100%)
b1849	Install 138 kV bus and 7 CBs at TSS 109 Aptakisic 138 kV		ComEd (100%)
b1850	Upgrade 1113 ACSR station conductor on 138 kV line 7910 at TSS 144 Wayne 138 kV		ComEd (100%)
b1851	Reconductor station conductor on 138 kV line 7915 at TSS 144 Wayne 138 kV		ComEd (100%)
b1852.1	Upgrade five 345 kV circuit breakers (L1223, L11124, L14321, BT2-3 and BT3-4) at Electric Junction		ComEd (100%)
b1852.2	Modify reclosing on 138 kV line (L11103) at TSS 111 Electric Junction		ComEd (100%)
b1885	Reconductor/rebuild the 138 kV line 16914 for 1.3 miles from Stewart to the H440 tap		ComEd (100%)
b1886	Install a 345 kV normally closed bus tie CB at Kendall County		ComEd (100%)
b1903	Replace 7 138 kV breakers at Natoma 138 kV substation		ComEd (100%)

*Neptune Regional Transmission System, LLC

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

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2119	Reconductor 25 miles of 138 kV line 10714 from Dixon to McGirr Road and replace line traps on each end		ComEd (100%)
b2127	Install two 300 MVAR SVC's on the 138 kV red and blue buses at Prospect Heights substation		ComEd (100%)
b2128	Reconductor 8.9 miles of 138 kV line 11323 from Waterman to Glidden, replace two spans of conductor between Haumesser Road, and Waterman also on line 11323		ComEd (100%)
b2141	Construct a new Byron to Wayne 345 kV circuit		AEP (4.13%) / APS (2.23%) / ATSI (0.08%) / ComEd (92.99%) / Dayton (0.41%) / Dominion (0.16%)

*Neptune Regional Transmission System, LLC

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

SCHEDULE 12 – APPENDIX

- (17) **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)**

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 AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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

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)
b0490.2	Replace Amos 138 kV breaker 'B'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.3	Replace Amos 138 kV breaker 'B1'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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)
b0490.4	Replace Amos 138 kV breaker 'C'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.5	Replace Amos 138 kV breaker 'C1'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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

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)
b0490.6	Replace Amos 138 kV breaker 'D'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.7	Replace Amos 138 kV breaker 'D2'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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

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)
b0490.8	Replace Amos 138 kV breaker 'E'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.9	Replace Amos 138 kV breaker 'E2'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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

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)
b0504	Add two advanced technology circuit breakers at Hanging Rock 765 kV to improve operational performance	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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 138/69-34.5kV Station to interconnect the existing 34.5kV 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 345kV line near the intersection with Ross - Highland 69kV	AEP (89.97%) / Dayton (10.03%)
b1032.2	Construct two 138kV outlets to Delano 138kV station and to Camp Sherman station	AEP (89.97%) / Dayton (10.03%)
b1032.3	Convert Ross - Circleville 69kV to 138kV	AEP (89.97%) / Dayton (10.03%)
b1032.4	Install 138/69kV transformer at new station and connect in the Ross - Highland 69kV 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%)

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)
b1034.1	Establish new South Canton - West Canton 138kV line (replacing Torrey - West Canton) and Wagenhals - Wayview 138kV	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 138kV 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 345/138kV 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 138kV 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 138kV 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 138kV 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 138kV 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%)

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)
b1034.8	Install additional 138kV 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 345kV breaker string in the West Millersport Station. Construct a new West Millersport – Gahanna 138kV circuit. Miscellaneous improvements to 138kV 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 138kV, Centerville–Ivy Hill 138kV, Ivy Hill–Reusens 138kV, Bonsack–Reusens 138kV 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%)

* Neptune Regional Transmission System, LLC

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

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)
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 138kV	AEP (100%)
b1043	Perform sag studies to raise the emergency rating of Turner - Ruth 138kV	AEP (100%)
b1044	Perform sag studies to raise the emergency rating of Kenova – South Point 138kV	AEP (100%)
b1045	Perform sag studies of Tri State - Darrah 138 kV	AEP (100%)
b1046	Perform sag study of Scottsville – Bremono 138kV to raise the emergency rating	AEP (100%)
b1047	Perform sag study of Otter Switch - Altavista 138kV to raise the emergency rating	AEP (100%)

* Neptune Regional Transmission System, LLC

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

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)
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 138kV	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%)

* Neptune Regional Transmission System, LLC

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

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)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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%)

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)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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%)

* Neptune Regional Transmission System, LLC

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

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)
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 <u>75.17</u> %) / APS (1.25%) / BGE (1.81%) / ComEd (5.91 <u>5.92</u> %) / Dayton (0.86%) / DL (1.23%) / DPL (0.95%) / Dominion (3.89 <u>3.90</u> %) / JCPL (1.58%) / NEPTUNE (0.15%) / HTP (0.07 %) / PECO (2.08%) / PEPCO (1.66%) / ECP (0.07 %)** / PSEG (2.62 <u>2.63</u> %) / 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*Neptune Regional Transmission System, LLC

**~~East Coast Power, LLC~~

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)
b1465.3	Transpose the Rockport – Sullivan 765 kV line and the Rockport – Jefferson 765 kV line	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1465.4	Make switching improvements at Sullivan and Jefferson 765 kV stations	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

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)
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%)

*Neptune Regional Transmission System, LLC

~~**East Coast Power, LLC~~

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)
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%)

*Neptune Regional Transmission System, LLC

~~**East Coast Power, LLC~~

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)
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%)

*Neptune Regional Transmission System, LLC

** East Coast Power, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

**** East Coast Power, LLC**

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)
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%)

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)
b1495	Add an additional 765/345 kV transformer at Baker Station	AEC (0.41%) / AEP (87.22 87.29 %) / BGE (1.03%) / ComEd (3.38 3.39 %) / 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%)

*Neptune Regional Transmission System, LLC

~~** East Coast Power, LLC~~

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)
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 <u>93.67</u> %) / 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%)

*Neptune Regional Transmission System, LLC

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

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)
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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1659.14	Build approximately 14 miles of 765 kV line from existing Dumont - Marysville line		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*Neptune Regional Transmission System, LLC

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

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)
b1660	Install a 765/500 kV transformer at Cloverdale	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1661	Install a 765 kV circuit breaker at Wyoming station	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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)
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%)

*Neptune Regional Transmission System, LLC

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

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)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

*Neptune Regional Transmission System, LLC

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

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)
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%)

*Neptune Regional Transmission System, LLC

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

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)
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 - Jauy 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%)

*Neptune Regional Transmission System, LLC

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

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)
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 138kV breakers and two 138kV circuit switchers at South Princeton Station and one 138kV breaker and one 138kV circuit switcher at Switchback Station	AEP (100%)
b1781	Install three 138 kV breakers and a 138kV circuit switcher at Trail Fork Station in Pineville, WV	AEP (100%)

*Neptune Regional Transmission System, LLC

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

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)
b1782	Install a 46kV 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%)

*Neptune Regional Transmission System, LLC

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

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)
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 272MVA (Cave Spring-Hancock), 205MVA (Cave Spring-Sunscape), 245MVA (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 (175MVA)	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 251/286MVA	AEP (100%)

*Neptune Regional Transmission System, LLC

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

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)
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 284MVA	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 251/335MVA	AEP (100%)
b1866	Perform a sag study on the Clinch River-Lock Hart-Dorton 138kV line, increase the Relay Compliance Trip Limit at Clinch River on the C.R.-Dorton 138kV line to 310 and upgrade the risers with 1590ACSR	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 179MVA	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 219MVA	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)
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 250MVA	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%)

*Neptune Regional Transmission System, LLC

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

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)
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	AEP (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%)

*Neptune Regional Transmission System, LLC

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

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)
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%)

*Neptune Regional Transmission System, LLC

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

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)
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%)

*Neptune Regional Transmission System, LLC

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

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)
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%)

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)
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 <u>69.66</u> %) / ATSI (23.11 <u>23.19</u> %) / ECP ** (0.17 %) / HTP (0.19 %) / PENELEC (2.42 <u>2.43</u> %) / PSEG (4.52 <u>4.54</u> %) / 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 138kV ckt	AEP (100%)
b1961	Sag study on the Southeast Canton – Sunnyside 138kV line	AEP (100%)

*Neptune Regional Transmission System, LLC

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

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)
b1962	Add four 765 kV breakers at Kammer	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 345kV circuit	APS (33.51 33.58%) / ATSI (32.21 32.28%) / DL (18.64 18.68%) / Dominion (6.01 6.02%) / ECP** (0.10%) / HTP (0.11%) / JCPL (1.68%) / Neptune* (0.18%) / PENELEC (4.58 4.59%) / PSEG (2.87 2.88%) / 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.~~

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)
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 <u>37.10</u> %) / AEP (34.35 <u>34.41</u> %) / DL (10.41 <u>10.43</u> %) / Dominion (6.19 <u>6.20</u> %) / APS (3.94 <u>3.95</u> %) / PENELEC (3.09 <u>3.10</u> %) / 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.~~

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)
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%)

*Neptune Regional Transmission System, LLC

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

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)
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%)

*Neptune Regional Transmission System, LLC

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

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)
b2069	Replace George Washington 138 kV breaker 'A' with 63kA rated breaker	AEP (100%)
b2070	Replace Harrison 138 kV breaker '6C' with 63kA rated breaker	AEP (100%)
b2071	Replace Lincoln 138 kV breaker 'L' with 63kA rated breaker	AEP (100%)
b2072	Replace Natrum 138 kV breaker 'T' with 63kA rated breaker	AEP (100%)
b2073	Replace Darrah 138 kV breaker 'B' with 63kA rated breaker	AEP (100%)
b2074	Replace Wyoming 138 kV breaker 'G' with 80kA rated breaker	AEP (100%)
b2075	Replace Wyoming 138 kV breaker 'G1' with 80kA rated breaker	AEP (100%)
b2076	Replace Wyoming 138 kV breaker 'G2' with 80kA rated breaker	AEP (100%)
b2077	Replace Wyoming 138 kV breaker 'H' with 80kA rated breaker	AEP (100%)
b2078	Replace Wyoming 138 kV breaker 'H1' with 80kA 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 80kA rated breaker	AEP (100%)

*Neptune Regional Transmission System, LLC

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

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

*Neptune Regional Transmission System, LLC

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

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)
b2093	Replace Turner 138 kV breaker 'W' with 63kA 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%)

*Neptune Regional Transmission System, LLC

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

SCHEDULE 12 – APPENDIX

(23) American Transmission Systems, Inc.

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1190	Reconductor Lemonyne – Maclean 138 kV circuit with 954 ACSS conductor		ATSI (100%)
b1191	Replace the Shenango – Crossland 138 kV circuit #2 meter with a higher rated meter		ATSI (100%)
b1192	Reconductor the Bayshore –Chevy 138 kV circuit with 636 ACSS conductor		ATSI (100%)
b1193	Replace the Hanna –East Akron 138 kV 800 Amp wavetrap with a 1200 Amp wavetrap		ATSI (100%)
b1194	Replace substation conductor on GM powertrain 138 kV line exit (replace 636 ACSR with 1590 AAC or ACSR)		ATSI (100%)
b1229	Replace the circuit terminal and sections of substation bus conductor at Shenango 138 kV substation		ATSI (100%)
b1281	Build new Hayes 345/138 kV substation with new 138 kV lines to: Greenfield #1, Greenfield #2, and Avery		ATSI (100%)
b1281.1	Replace Greenfield 138 kV breaker '501-B-1'		ATSI (100%)
b1281.2	Replace Greenfield 138 kV breaker '501-B-21'		ATSI (100%)
b1281.3	Replace Greenfield 138 kV breaker '501-B-227'		ATSI (100%)
b1281.4	Replace Greenfield 138 kV breaker '501-B-23'		ATSI (100%)

b1281.5	Replace Greenfield 138 kV breaker '501-B-242'		ATSI (100%)
---------	--	--	-------------

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1281.6	Replace Greenfield 138 kV breaker '501-B-36'		ATSI (100%)
b1281.7	Replace Greenfield 138 kV breaker '501-B-38'		ATSI (100%)
b1281.8	Replace Greenfield 138 kV breaker '501-B-40'		ATSI (100%)
b1282	Build Beaver - Hayes - Davis - Besse #2 345 kV line		ATSI (100%)
b1283	Loop the Chamberlin - Mansfield 345 kV line into the Hanna 345 kV substation		ATSI (100%)
b1284	Install 50.0 MVAR capacitor bank at the Lime City 138 kV Substation		ATSI (100%)
b1285	Replace Barberton Star 138 kV #1 wavetrapp, CFZ relay, and line exit conductor at Barberton		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1286	Reconductor Hanna - W. Ravenna 138 kV #1	ATSI (100%)
b1287	Reconductor Hanna - W. Ravenna 138 kV #2	ATSI (100%)
b1288	Replace Masury - Crossland 138 kV terminal equipment at Masury	ATSI (100%)
b1289	Reconductor Evergreen - Niles 138 kV (3 miles) and replace terminal equipment at Evergreen on Evergreen - Niles 138 kV	ATSI (100%)
b1290	Build new Niles - Salt Springs #2 138 kV with 795 ACSR	ATSI (100%)
b1291	Replace substation equipment at Eastlake on the Q-12 138 kV line ext	ATSI (100%)
b1292	Replace substation equipment at Eastlake on the Q-13 138 kV line exit	ATSI (100%)
b1293	Replace substation equipment at the Tangy sub on the E. Springfield - Tangy line	ATSI (100%)
b1294	Modify the Brookside - Longview #2 138 kV CT ratio and correct the design temperature	ATSI (100%)
b1295.1	Modify the Brookside - Longview #1 138 kV CT ratio + correct the design temperature (Longview - Madison)	ATSI (100%)
b1295.2	Modify the Brookside - Longview #1 138 kV CT ratio + correct the design temperature (Brookside - Madison)	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1296.1	Reconductor BG line exit conductor at Lemoyne Sub	ATSI (100%)
b1296.2	Change the CT ratio at Lemoyne B13213 towards Brim Tap to increase line loadability	ATSI (100%)
b1297	Install a new Fulton 345/138 kV substation	ATSI (100%)
b1299	Add SCADA control and motor operators to switches 13153 and 13154 near Silica	ATSI (100%)
b1341	Install a 25 MVAR cap bank at Airpark 138 kV substation	ATSI (100%)
b1342	Install a 50 MVAR cap bank at Sharon 138 kV substation	ATSI (100%)
b1547	Reconductor the Lakeview Greenfield 138 kV line Replace 4/0 Cu with 336.4 ACSR, maintain 6-wire arrangement	ATSI (100%)
b1548	Reconductor the Ottawa Lakeview 138 kV line Replace 4/0 Cu with 336.4 ACSR, maintain 6-wire arrangement	ATSI (100%)
b1585	Galion-GM Mansfield-Longview 138 kV line: Bypass GM Mansfield substation	ATSI (100%)
b1586	Change the relay setting limit	ATSI (100%)
b1587	Build a new Mansfield 69 kV Switching Station networking Leaside, Longview, and Galion Subs @ existing Alta 69 kV Sub Site	APS (0.56%) / ATSI (97.56%) / PENELEC (1.13%) / DL (0.75%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1611	Replace Avon Lake 138 kV breaker '10-B-9'		ATSI (100%)
b1612	Replace Pleasant Valley 138 kV breaker '194-B-7'		ATSI (100%)
b1613	Replace Brady 138 kV breaker '1003-B-6'		ATSI (100%)
b1614	Replace Brady 138 kV breaker '36-B-56'		ATSI (100%)
b1615	Replace East Akron 138 kV breaker '36-B-40'		ATSI (100%)
b1616	Replace East Akron 138 kV breaker '36-B-45'		ATSI (100%)
b1617	Replace Greenfield 138 kV breaker '501-B-68'		ATSI (100%)
b1618	Replace Masury 138 kV breaker '103-B-118'		ATSI (100%)
b1619	Replace Roberts 138 kV breaker '601-B-26'		ATSI (100%)
b1620	Replace Roberts 138 kV breaker '601-B-113'		ATSI (100%)
b1621	Replace Roberts 138 kV breaker '601-B-13'		ATSI (100%)
b1622	Replace Sammis 138 kV breaker '780-B-44'		ATSI (100%)
b1623	Replace Sammis 138 kV breaker '780-B-45'		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1624	Replace Sammis 138 kV breaker '780-B-9'	ATSI (100%)
b1625	Replace Sammis 138 kV breaker '780-B-75'	ATSI (100%)
b1626	Revise the reclosing of Eastlake 138 kV breaker '46-B-36'	ATSI (100%)
b1627	Revise the reclosing of Eastlake 138 kV breaker '46-B-35'	ATSI (100%)
b1628	Revise the reclosing of Eastlake 138 kV breaker '46-B-31'	ATSI (100%)
b1629	Revise the reclosing of Eastlake 138 kV breaker '46-B-34'	ATSI (100%)
b1630	Revise the reclosing of Eastlake 138 kV breaker '46-B-21'	ATSI (100%)
b1631	Revise the reclosing of Eastlake 138 kV breaker '46-B-27'	ATSI (100%)
b1632	Revise the reclosing of Eastlake 138 kV breaker '46-B-18'	ATSI (100%)
b1633	Revise the reclosing of Eastlake 138 kV breaker '46-B-24'	ATSI (100%)
b1634	Revise the reclosing of Eastlake 138 kV breaker '46-B-33'	ATSI (100%)
b1635	Revise the reclosing of Eastlake 138 kV breaker '46-B-32'	ATSI (100%)
b1636	Revise the reclosing of Fowles 138 kV breaker '64-B-9'	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1637	Revise reclosing of Pleasant Valley 138 kV breaker '194-B-5'		ATSI (100%)
b1638	Revise the reclosing of Bluebell 138 kV breaker '301-B-9'		ATSI (100%)
b1639	Revise the reclosing of Bluebell 138 kV breaker '301-B-8'		ATSI (100%)
b1640	Revise the reclosing of East Akron 138 kV breaker '36-B-22'		ATSI (100%)
b1691	Install a new Bluebell - S. Akron 138 kV circuit		ATSI (100%)
b1691.1	Un-six wire sections of E. Akron - Knox 138 kV		ATSI (100%)
b1691.2	Un-six wire sections of Bluebell - C. Central 138 kV		ATSI (100%)
b1691.3	Reconductor approximately 5.5 miles of ACSR with ACSS conductor from Bluebell to start of 6-wire sections		ATSI (100%)
b1691.4	Create Bluebell - South Akron 138 kV line with new connections		ATSI (100%)
b1691.5	Replace 250 Cu and 336.4 ACSR with 954 ACSR SSCIR at Bluebell		ATSI (100%)
b1691.6	Replace Relays at Bluebell and add line breaker at tap to Alliance Castings		ATSI (100%)
b1692	Loop in E. Akron - Sammis 138 kV line and expand Knox to 6 breaker ring bus		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1693	Replace the Star 345/138 kV #3 with a larger unit		ATSI (100%)
b1732	Create Brookside - Reedsburg - Longview 138 kV line and open Burger - Cloverdale #2 and #3 138 kV lines		ATSI (100%)
b1771	Perform reconfiguration at Richland 138kV that will permit the removal of the existing Richland SPS		ATSI (100%)
b1814	Replace Pleasant Valley 138 kV breaker 194-B-3		ATSI (100%)
b1815	Replace West Ravena 138 kV breaker 59-B-15		ATSI (100%)
b1820	Replace the Ironville 138 kV breaker ‘33-B-13208’		ATSI (100%)
b1913	Convert Eastlake units 1, 2, 3, 4 and 5 to synchronous condensers		ATSI (100%)
b1914	Convert Lakeshore 18 to a synchronous condenser		ATSI (100%)
b1915	Install a 50 MVAR capacitor bank at the Maclean 138 kV station		ATSI (100%)
b1916	Install a 345/138 kV transformer at the Inland Q-11 station		ATSI (100%)
b1917	Install a 138 kV circuit breaker at the Inland Q-11 station		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1918	Upgrade terminal equipment on the Avon – Crestwood 138 kV line and reconductor 2 spans		ATSI (100%)
b1919	Re-conductor the Galion – Leaside 138 kV line with 336 ACSS		ATSI (100%)
b1920	Re-conductor the Galion – GM Mansfield – Ontario - Cairns 138 kV line with 477 ACSS		ATSI (94.47%) / DL (2.90%) / PENELEC (2.63%)
b1921	Install a 2nd 345/138 kV transformer at the Allen Junction station		ATSI (100%)
b1921.1	Replace Allen Junction 345 kV breaker 'MECS/TR1:3' with 40kA breaker		ATSI (100%)
b1921.2	Replace Allen Junction 345 kV breaker 'MIDWAY/MECS' with 40kA breaker		ATSI (100%)
b1921.3	Replace Allen Junction 345 kV breaker 'MIDWAY/TR1' with 40kA breaker		ATSI (100%)
b1922	Install a 2nd 345/138 kV transformer at the Bayshore station		ATSI (100%)
b1923	Create a new Northfield Area 345 kV switching station by looping in the Eastlake – Juniper 345 kV line and the Perry - Inland 345 kV line		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1924	Build a new Mansfield - Northfield Area 345 kV line	ATSI (100%)
b1925	Create a new Harmon 345/138/69 kV substation by looping in the Star – South Canton 345 kV line	ATSI (100%)
b1925.1	Replace Bluebell 138 kV breaker '301-B-15' with 40kA breaker	ATSI (100%)
b1926	Build a new Harmon – Brookside + Harmon - Longview 138 kV line	ATSI (100%)
b1926.1	Replace Longview 138 kV breaker '651-B-219' with 40kA breaker	ATSI (100%)
b1926.2	Replace Longview 138 kV breaker '651-B-32' with 40kA breaker	ATSI (100%)
b1927	Create a new Five Points Area 345/138 kV substation by looping in the Lemoyne – Midway 345 kV line	ATSI (100%)
b1928	Install a 50 MVAR capacitor at Hayes 138 kV	ATSI (100%)
b1929	Install a 138/69 kV transformer at the Avery station	ATSI (100%)
b1930	Increase design temperature limitation on the Avery – Hayes 138 kV line by raising the existing structures	ATSI (100%)
b1931	Reconductor Cloverdale - Harmon #2 and #3 138 kV lines with 795 ACSS or greater conductor 6 miles total + Terminal upgrades	ATSI (100%)
b1932	Change the transformer tap settings on the Maclean 138/69 kV transformers	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1933	Replace 336.4 ACSR SCCIR at Richland to upgrade the Richland – Naomi 138 kV line	ATSI (100%)
b1934	Build a new 345/138 kV Substation at Niles	ATSI (100%)
b1934.1	Loop 1.2 miles of 345 kV into substation of the Highland – Shenango 345 kV line	ATSI (100%)
b1934.2	New 345/138 kV transformer at Niles	ATSI (100%)
b1934.3	Replace Niles 138 kV breaker '170-B-11' with 63kA breaker	ATSI (100%)
b1934.4	Replace Niles 138 kV breaker '170-B-19' with 63kA breaker	ATSI (100%)
b1934.5	Replace Niles 138 kV breaker '170-B-20' with 63kA breaker	ATSI (100%)
b1934.6	Replace Niles 138 kV breaker '170-B-9' with 63kA breaker	ATSI (100%)
b1934.7	Replace Niles 138 kV breaker '170-B-97' with 63kA breaker	ATSI (100%)
b1934.8	Replace Niles 138 kV breaker '170-B-16' with 63kA breaker	ATSI (100%)
b1934.9	Replace Niles 138 kV breaker '170-B-18' with 63kA breaker	ATSI (100%)
b1934.10	Replace Niles 138 kV breaker '170-B-10' with 63kA breaker	ATSI (100%)
b1934.11	Replace Salt Springs 138 kV breaker '105-B-2' with 63kA breaker	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1934.12	Replace Salt Springs 138 kV breaker 'Bay' with 63kA breaker		ATSI (100%)
b1934.13	Replace Salt Springs 138 kV breaker '105-B-40' with 63kA breaker		ATSI (100%)
b1934.14	Replace Salt Springs 138 kV breaker '105-B-42' with 63kA breaker		ATSI (100%)
b1934.15	Replace Salt Springs 138 kV breaker '105-B-45' with 63kA breaker		ATSI (100%)
b1934.16	Replace Salt Springs 138 kV breaker '105-B-56' with 63kA breaker		ATSI (100%)
b1934.17	Replace Salt Springs 138 kV breaker '105-B-58' with 63kA breaker		ATSI (100%)
b1934.18	Replace Salt Springs 138 kV breaker '105-B-170' with 63kA breaker		ATSI (100%)
b1934.19	Replace Salt Springs 138 kV breaker '105-B-192' with 63kA breaker		ATSI (100%)
b1934.20	Replace Wickliffe 138 kV breaker '144-B-103' with 40kA breaker		ATSI (100%)
b1934.21	Revise the reclosing of Evergreen 138 kV breaker '802-B-93'		ATSI (100%)
b1934.22	Revise the reclosing of Evergreen 138 kV breaker '2801-B-16'		ATSI (100%)
b1934.23	Revise the reclosing of Evergreen 138 kV breaker '2801-B-20'		ATSI (100%)
b1934.24	Revise the reclosing of Evergreen 138 kV breaker '2801-B-21'		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1934.25	Revise the reclosing of Evergreen 138 kV breaker '2801-B-65'	ATSI (100%)
b1934.26	Revise the reclosing of Evergreen 138 kV breaker '2801-B-6'	ATSI (100%)
b1935	ATSI-AEP 138 kV Substation (Brubaker) on near territory border + 138 kV from new substation to Longview approx. 8 miles	ATSI (94.90%) / DL (2.97) / PENELEC (2.13%)
b1935.1	Revise the reclosing of Brookside 138 kV breaker '701-B-128'	ATSI (100%)
b1935.2	Revise the reclosing of Brookside 138 kV breaker '701-B-135'	ATSI (100%)
b1935.3	Revise the reclosing of Brookside 138 kV breaker '701-B-206'	ATSI (100%)
b1935.4	Revise the reclosing of Brookside 138 kV breaker '701-B-28'	ATSI (100%)
b1935.5	Revise the reclosing of Brookside 138 kV breaker '701-B-3'	ATSI (100%)
b1935.6	Revise the reclosing of Brookside 138 kV breaker '701-B-30'	ATSI (100%)
b1935.7	Revise the reclosing of Brookside 138 kV breaker '701-B-31'	ATSI (100%)
b1935.8	Revise the reclosing of Brookside 138 kV breaker '701-B-36'	ATSI (100%)
b1935.9	Revise the reclosing of Brookside 138 kV breaker '701-B-40'	ATSI (100%)
b1935.10	Revise the reclosing of Brookside 138 kV breaker '701-B-7'	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1936	Build new Allen Jct - Midway - Lemonye 345 kV line (48 miles of open tower position)	ATSI (100%)
b1937	Build a new Leroy Center 345/138 kV substation by looping in the Perry – Harding 345 kV line	ATSI (100%)
b1938	Place a portion of the 138 kV Leroy Center 345/138 kV project into service by summer 2015	ATSI (100%)
b1939	Reconductor the Barberton – West Akron 138 kV line with 477 ACSS or greater (7.3 miles) + Terminal upgrades at Barberton	ATSI (100%)
b1959	Build a new West Fremont-Groton-Hayes 138kV line	APS (4.24%) / ATSI (87.76%) / DL (4.27%) / PENELEC (3.73%)
b1976	Reconductor ATSI portion of South Canton – Harmon 345 kV line	ATSI (88.7789.00%) / ECP** (0.12%) / HTP (0.14%) / JCPL (1.24%) / Neptune* (0.13%) / PENELEC (6.546.56%) / PSEG (2.942.95%) / RE (0.12%)
b1977	Build new Toronto 345/138 kV substation by looping in the Sammis – Wylie Ridge 345 kV line and tie in four 138 kV lines	APS (7.03%) / ATSI (88.08%) / DL (0.81%) / PENELEC (4.08%)
b1977.1	Build a new Toronto-Harmon 345kV line	APS (7.03%) / ATSI (88.08%) / DL (0.81%) / PENELEC (4.08%)
b1978	Reconductor Inland – Clinic Health Q-11 138 kV line	ATSI (100%)

* Neptune Regional Transmission System, LLC

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

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1981	Replace relay on the Highland – G689 138 kV line	ATSI (100%)
b1982	Reconductor the Hoytdale – Newcastle 138 kV lines #1 and #2 with 795 ACSS	ATSI (100%)
b1983	Add 150 MVAR SVC and a 100 MVAR capacitor at New Castle	ATSI (100%)
b1984	Install a 50 MVAR capacitor at the Boardman 138 kV bus	ATSI (100%)
b2042	Add (6) 138 kV breakers + relaying at Leroy Center	ATSI (100%)
b2059	Replace Bluebell 138 kV breaker '301-B-11' with 40kA breaker	ATSI (100%)
b2060	Replace Bluebell 138 kV breaker '301-B-9' with 40kA breaker	ATSI (100%)
b2061	Replace Bluebell 138 kV breaker '301-B-187' with 40kA breaker	ATSI (100%)
b2062	Replace Bluebell 138 kV breaker '301-B-206' with 40kA breaker	ATSI (100%)
b2063	Replace Bluebell 138 kV breaker '301-B-10' with 40kA breaker	ATSI (100%)
b2064	Replace Knox 138 kV breaker '307-B-10' with 40kA breaker	ATSI (100%)

* Neptune Regional Transmission System, LLC

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

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 230/115kV transformer at Raphael Rd and construct approximately 3 miles of 115kV line from Raphael Rd. to Joppatowne. Construct a 115kV three breaker ring at Joppatowne	BGE (100%)
b2308	Build approximately 3 miles of 115kV 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 115kV 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 115kV 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%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		DFAX Allocation: AEC (0.05%) / APS (11.16 11.40%) / BGE (22.34 22.83%) / Dayton (2.18 2.23%) / -DEOK (4.19 4.28%) / DPL (0.20%) / ECP** (1.03%) / EKPC (1.94 1.98%) / JCPL (10.82 11.06%) / NEPTUNE* (1.14 1.17%) / HTP*** (1.10%) / POSEIDON**** (0.63 0.64%) / PENELEC (0.06%) / PEPECO (18.97 19.38%) / PSEG (23.26 23.77%) / RECO (0.93 0.95%)

*Neptune Regional Transmission System, LLC

** ~~East Coast Power, LLC~~

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

****Poseidon Transmission 1, LLC

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 63kA breaker		PECO (100%)
b2222.2	Increase Rating of Eddystone #415 138kV Breaker		PECO (100%)
b2236	50 MVAR reactor at Buckingham 230 kV		PECO (100%)
b2527	Replace Whitpain 230 kV breaker '155' with 80kA breaker		PECO (100%)
b2528	Replace Whitpain 230 kV breaker '525' with 80kA 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 63kA breaker	PECO (100%)
b2694	Increase ratings of Peach Bottom 500/230 kV transformer to 1479 MVA normal/1839 MVA emergency	AEC (3.974.04 %) / AEP (5.775.87 %) / APS (4.274.34 %) / ATSI (6.156.25 %) / BGE (1.631.66 %) / ComEd (0.720.73 %) / Dayton (1.061.08 %) / DEOK (1.972.01 %) / DL (2.252.29 %) / Dominion (0.35%) / DPL (14.2914.53 %) / ECP(0.69%) / EKPC (0.390.40 %) / HTP(0.96%) / JCPL (6.846.95 %) / MetEd (3.283.34 %) / Neptune (2.142.18 %) / PECO (16.4216.69 %) / PENELEC (3.944.01 %) / PPL (8.328.46 %) / PSEG (14.1314.37 %) / RECO (0.440.45 %)
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	AEP (6.46%) / APS (8.74%) / BGE (19.74%) / ComEd (2.16%) / Dayton (0.59%) /

	Peach Bottom 500 kV: on the Beach Bottom – TMI 500 kV circuit		DEOK (1.02%) / DL (0.01%) / Dominion (39.95%) / EKPC (0.45%) / PEPCO (20.88%)
--	---	--	---

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: AEC (0.05%) / APS (11.1611.40%) / BGE (22.3422.83%) / Dayton (2.182.23%) / -DEOK (4.194.28%) / DPL (0.20%) / ECP** (-1.03%) / EKPC (1.941.98%) / JCPL (10.8211.06%) / NEPTUNE* (1.141.17%) / HTP*** (-1.10%) / POSEIDON**** (0.630.64%) / PENELEC (0.06%) / PEPCO (18.9719.38%) / PSEG (23.2623.77%) / RECO (0.930.95%)</p>

*Neptune Regional Transmission System, LLC

~~** East Coast Power, LLC~~

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

****Poseidon Transmission 1, 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 63kA breaker	PECO (100%)
b2852	Replace the Chichester 230 kV "195" with 63kA breaker	PECO (100%)
b2854	Replace the North Philadelphia 230 kV "CS 775" with 63kA breaker	PECO (100%)
b2855	Replace the North Philadelphia 230 kV "CS 885" with 63kA breaker	PECO (100%)
b2856	Replace the Parrish 230 kV "CS 715" with 63kA breaker	PECO (100%)
b2857	Replace the Parrish 230 kV "CS 825" with 63kA breaker	PECO (100%)
b2858	Replace the Parrish 230 kV "CS 935" with 63kA breaker	PECO (100%)
b2859	Replace the Plymouth Meeting 230 kV "215" with 63kA breaker	PECO (100%)
b2860	Replace the Plymouth Meeting 230 kV "235" with 63kA breaker	PECO (100%)
b2861	Replace the Plymouth Meeting 230 kV "325" with 63kA breaker	PECO (100%)
b2862	Replace the Grays Ferry 230 kV "705" with 63kA 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 63kA breaker		PECO (100%)
b2864	Replace the Grays Ferry 230 kV "775" with 63kA breaker		PECO (100%)

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)		HTP (36.49%) / ECP** (63.51%) <u>PSEG (100%)</u>
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

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

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 63kA breaker	PSEG (100%)
b2421	Install all 69kV lines to interconnect Plainfield, Greenbrook, and Bridgewater stations and establish the 69kV network	PSEG (100%)
b2421.1	Install two 18MVAR capacitors at Plainfield and S. Second St substation	PSEG (100%)

*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)
b2421.2	Install a second four (4) breaker 69kV 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (100%)</p>

*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)
b2436.22	Convert the Marion - Bayonne "C" 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (100%)</p>
b2436.33	Construct a new Bayway – Bayonne 345 kV circuit and any associated substation upgrades	PSEG (100%)
b2436.34	Construct a new North Ave – Bayonne 345 kV circuit and any associated substation upgrades	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)
b2436.50	Construct a new North Ave - Airport 345 kV circuit and any associated substation upgrades	<i>PSEG (100%)</i>
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	<i>PSEG (96.13%) / RE (3.87%)</i>
b2436.70	Construct a new Airport - Bayway 345 kV circuit and any associated substation upgrades	<i>PSEG (100%)</i>
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		DFAX Allocation: PSEG (96.13%) / RE (3.87%)

*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)
b2436.83	Convert the Bayway - Linden "Z" 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</p>

*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)
b2436.85	Convert the Bayway – Linden “M” 138 kV circuit to 345 kV and any associated substation upgrades	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</p>
b2436.91	Relocate the Hudson 2 generation to inject into the 345 kV at Marion and any associated upgrades	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)
b2437.10	New Bergen 345/230 kV transformer and any associated substation upgrades	PSEG (96.13%) / RE (3.87%)
b2437.11	New Bergen 345/138 kV transformer #1 and any associated substation upgrades	<i>PSEG (100%)</i>
b2437.20	New Bayway 345/138 kV transformer #1 and any associated substation upgrades	PSEG (96.13%) / RE (3.87%)
b2437.21	New Bayway 345/138 kV transformer #2 and any associated substation upgrades	PSEG (96.13%) / RE (3.87%)
b2437.30	New Linden 345/230 kV transformer and any associated substation upgrades	PSEG (96.13%) / RE (3.87%)
b2437.33	New Bayonne 345/69 kV transformer and any associated substation upgrades	PSEG (100%)
b2438	Install two reactors at Tosco 230 kV	PSEG (100.00%)
b2439	Replace the Tosco 138kV breaker 'CB1/2 (CBT)' with 63kA	PSEG (100.00%)
b2474	Rebuild Athenia 138 kV to 80kA	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

~~**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)
b2633.3	Install an SVC at New Freedom 500 kV substation	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>

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 (0.01%) / DPL (99.98%) / JCPL (0.01%)
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		<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>

*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)
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		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

~~**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)
b2712	Replace the Bergen 138 kV '40P' breaker with 80kA breaker	PSEG (100%)
b2713	Replace the Bergen 138 kV '90P' breaker with 80kA 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	PSEG (100%)

Public Service Electric and Gas Company (cont.)**Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)**

b2836	Convert the N-1340 and T-1372/D-1330 (Brunswick – Trenton) 138 kV circuits to 230 kV circuits		PSEG (100%)
b2837	Convert the F-1358/Z1326 and K1363/Y-1325 (Trenton – Burlington) 138 kV circuits to 230 kV circuits		PSEG (100%)
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%)

SCHEDULE 12 – APPENDIX A

(15) Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2141.1	Remove Byron SPS upon completion of Byron - Wayne 345 kV	ComEd (100%)
b2365	Replace 138 kV bus tie 1-2 circuit breaker, station conductor, relays, and a wave trap at TSS 55 Hegewisch substation	ComEd (100%)
b2366	Reconductor 1.4 miles of 138 kV line 0112, Kickapoo Creek - LaSalle County 138kV line	ComEd (100%)
b2415	Install a 138 kV Red Blue bus tie with underground cable and a line 15913 CB at Highland Park	ComEd (100%)
b2416	Reconductor 0.125 miles of the East Frankfort - Mokena 138 kV line L6604	ComEd (100%)
b2417	Replace Ridgeland 138 kV bus tie CB and underground cable at TSS 192 Ridgeland 138 kV substation	ComEd (100%)
b2418	Reconductor 7.5 miles of Waukegan - Gurnee 138 kV line L1607	ComEd (100%)
b2419	Reconductor 0.33 miles of 138 kV underground cable on the Sawyer - Crawford 138 kV Blue line (L1324)	ComEd (100%)
b2465	Replace the Skokie 138 kV breaker '88 L8809' with a 63 kA breaker	ComEd (100%)
b2466	Replace the Skokie 138 kV breaker '88 L8810' with 63kA breaker	ComEd (100%)
b2467	Replace the Skokie 138 kV breaker '88 L11416' with 63 kA breaker	ComEd (100%)

**Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
(cont.)**

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2468	Replace the Skokie 138 kV breaker '88 L8803' with 63kA breaker		ComEd (100%)
b2469	Replace the Des Plaines 138 kV breaker '46 11702' with 63 kA breaker		ComEd (100%)
b2561	Install a new 345 kV circuit breaker 5-7 at Elwood substation		ComEd (100%)
b2562	Remove 2.0 miles of wood poles on 138 kV line 17105, erect new steel structures, and install new 1113 kcmil ACSR conductor from Roscoe Bert to Harlem		ComEd (100%)
b2613	Replace relays at Mazon substation		ComEd (100%)
b2692.1	Replace station equipment at Nelson, ESS H-471 and Quad Cities		AEC (0.18%) / AEP (18.68 18.69%) / APS (5.86 5.87%) / ATSI (7.85 7.86%) / BGE (3.32%) / ComEd (38.21 38.23%) / Dayton (2.76%) / DEOK (4.13%) / DL (2.23%) / Dominion (5.15%) / DPL (1.97%) / EKPC (1.36%) / HTP (0.05%) / JCPL (0.52%) / MetED (0.04%) / Neptune (0.04%) / PECO (1.08%) / PENELEC (1.25%) / PEPCO (3.56%) / PPL (0.45%) / PSEG (1.17%) / RECO (0.14%)

**Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2692.2	Upgrade conductor ratings of Cordova – Nelson, Quad Cities – ESS H-471 and ESS H-471 – Nelson 345 kV lines and mitigating sag limitations	AEC (0.18%) / AEP (18.68 <u>18.69</u> %) / APS (5.86 <u>5.87</u> %) / ATSI (7.85 <u>7.86</u> %) / BGE (3.32%) / ComEd (38.21 <u>38.23</u> %) / Dayton (2.76%) / DEOK (4.13%) / DL (2.23%) / Dominion (5.15%) / DPL (1.97%) / EKPC (1.36%) / HTP (0.05%) / JCPL (0.52%) / MetED (0.04%) / Neptune (0.04%) / PECO (1.08%) / PENELEC (1.25%) / PEPCO (3.56%) / PPL (0.45%) / PSEG (1.17%) / RECO (0.14%)
b2693	Replace L7815 B phase line trap at Wayne substation	ComEd (100%)
b2699.1	Replace 5 Powerton 345 kV CB's with 2 cycle IPO breakers, install one new 345 kV CB; swap line 0302 and line 0303 bus positions; reconfigure Powerton 345 kV bus as single ring configuration	ComEd (100%)
b2699.2	Remove SPS logic at Powerton that trips generators or sectionalizes bus under normal conditions; minimal SPS logic will remain	ComEd (100%)
b2721	Goodings Grove – Balance Station Load (swap bus positions for 345 kV lines 1312 & 11620 and 345 kV lines 11604 & 11622) and replace 138 kV bus tie 2-3	ComEd (100%)

**Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2728		ATSI (3.43%) / AEP (3.34%) / ComEd (92.02%) / DLCO (1.21%)
b2732.1		ComEd (100%)
b2732.2		ComEd (100%)

SCHEDULE 12 – APPENDIX A

(18) Duquesne Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2175.1	200 MVAR shunt reactor at Brunot Island 345 kV	DL (100%)
b2175.2	200 MVAR shunt reactor on future Brunot Island – Carson 345 kV circuit	DL (100%)
b2198	Revise the reclosing for the Brunot Island 138 kV breaker 'Z-40 COLLIER'	DL (100%)
b2199	Revise the reclosing for the Brunot Island 138 kV breaker 'Z-41 COLLIER'	DL (100%)
b2200	Revise the reclosing for the Crescent 138 kV breaker 'Z-29 Beaver'	DL (100%)
b2201	Revise the reclosing for the Crescent 138 kV breaker 'Z-82 VALLEY'	DL (100%)
b2202	Revise the reclosing for the Crescent 138 kV breaker 'Z-21 NORTH'	DL (100%)
b2203	Revise the reclosing for the Elrama 138 kV breaker 'Z18-USX CLAI'	DL (100%)
b2204	Revise the reclosing for the Elrama 138 kV breaker 'Z13-WEST MIF'	DL (100%)
b2205	Revise the reclosing for the Elrama 138 kV breaker 'Z15-DRAVOSBU'	DL (100%)
b2206	Revise the reclosing for the Woodville 138 kV breaker 'Z-106 PINEY'	DL (100%)
b2207	Revise the reclosing for the Woodville 138 kV breaker 'Z-64 COLLIER'	DL (100%)
b2208	Revise the reclosing for the Beaver Valley 138 kV breaker 'Z-28 CRESCEN'	DL (100%)

Duquesne Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2209	Revise the reclosing for the Cheswick 138 kV breaker 'Z-51 WILMERD'	DL (100%)
b2280	Replace the USAP 138kV breaker 'XFMR'	DL (100%)
b2303	Revise the reclosing to the Dravosburg 138kV breaker 'Z73 West Mifflin' from 5 sec to 15 sec	DL (100%)
b2563	Operate with the Crescent 345/138 kV #3 autotransformer in-service by replacing 8 overdutied 138 kV breakers at Crescent, 3 138 kV breakers at Beaver Valley, install #1 section 345 kV breaker for 331 circuit at Crescent	DL (100%)
b2632	Replace the Oakland 138 kV 'Z-101 Arsenal' breaker	DL (100%)
b2639	Replace the Crescent 138 kV 'NO3 – 4 138' breaker with a 63kA breaker	DL (100%)
b2640	Replace the Crescent 138 kV 'Z-143 SWCKLY' breaker with a 63kA breaker	DL (100%)
b2641	Replace the Crescent 138 kV 'Z-24 MONTOUR' breaker with a 63kA breaker	DL (100%)
b2642	Replace the Crescent 138 kV 'Z-28 BEAVER' breaker with a 63kA breaker	DL (100%)
b2689.1	Reconductor approximately 7 miles of the Woodville – Peters (Z-117) 138 kV circuit	AEC (0.99 <u>1.00</u> %) / APS (66.14 <u>66.39</u> %) / BGE (4.60 <u>4.62</u> %) / DOM (8.81 <u>8.84</u> %) / DPL (5.83 <u>5.85</u> %) / ECP (0.34 %) / HTP (0.04 %) / Neptune (0.12%) / PECO (3.39 <u>3.40</u> %) / PEPCO (6.29 <u>6.32</u> %) / PSEG (3.45 <u>3.46</u> %)

Duquesne Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2689.2	Reconfigure West Mifflin-USS Clairton (Z-15) 138 kV circuit to establish Dravosburg-USS Clairton (Z-14) 138 kV circuit and West Mifflin-Wilson (Z-15) 138 kV circuit	AEC (0.99 <u>1.00</u> %) / APS (66.14 <u>66.39</u> %) / BGE (4.60 <u>4.62</u> %) / DOM (8.81 <u>8.84</u> %) / DPL (5.83 <u>5.85</u> %) / ECP (0.34 %) / HTP (0.04 %) / Neptune (0.12%) / PECO (3.39 <u>3.40</u> %) / PEPCO (6.29 <u>6.32</u> %) / PSEG (3.45 <u>3.46</u> %)

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 63kA rating		Dominion (100%)
b1696.1	Replace the Idylwood 230 kV '25112' breaker with 50kA breaker		Dominion (100%)
b1696.2	Replace the Idylwood 230 kV '209712' breaker with 50kA 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 Doods - 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 63kA breaker	Dominion (100%)
b2369	Replace the Brambleton 230 kV breaker '213702' with 63kA breaker	Dominion (100%)
b2370	Replace the Brambleton 230 kV breaker 'H302' with 63kA 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	Dominion (100%)
b2397	Replace the Beaumeade 230 kV breaker '2079T2116' with 63kA	Dominion (100%)
b2398	Replace the Beaumeade 230 kV breaker '2079T2130' with 63kA	Dominion (100%)
b2399	Replace the Beaumeade 230 kV breaker '208192' with 63kA	Dominion (100%)
b2400	Replace the Beaumeade 230 kV breaker '209592' with 63kA	Dominion (100%)
b2401	Replace the Beaumeade 230 kV breaker '211692' with 63kA	Dominion (100%)
b2402	Replace the Beaumeade 230 kV breaker '227T2130' with 63kA	Dominion (100%)
b2403	Replace the Beaumeade 230 kV breaker '274T2130' with 63kA	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

~~**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)
b2404	Replace the Beaumeade 230 kV breaker '227T2095' with 63kA	Dominion (100%)
b2405	Replace the Pleasant view 230 kV breaker '203T274' with 63kA	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 50kA	Dominion (100%)
b2443.2	Replace the Ox 230 kV breaker '206342' with 63kA breaker	Dominion (100%)
b2443.3	Glebe – Station C PAR	DFAX Allocation: Dominion (22.57%) / PEPCO (77.43%)
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%)
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%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
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	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: Dominion (100%)</p>
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 50kA breaker	Dominion (100%)
b2543	Replace the Loudoun 500 kV 'H2T584' breaker with a 50kA 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%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2582	Rebuild the Elmont – Cunningham 500 kV line	Dominion (100%)
b2583	Install 500 kV breaker at Ox Substation to remove Ox Tx#1 from H1T561 breaker failure outage.	Dominion (100%)
b2584	Relocate the Bremo load (transformer #5) to #2028 (Bremo-Charlottesville 230 kV) line and Cartersville distribution station to #2027 (Bremo-Midlothian 230 kV) line	Dominion (100%)
b2585	Reconductor 7.63 miles of existing line between Cranes and Stafford, upgrade associated line switches at Stafford	DFAX Allocation: 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%)

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%)
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%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2665	Rebuild the Cunningham – Doods 500 kV line	Dominion (100%)
b2686	Pratts Area Improvement	Dominion (100%)
b2686.1	Build a 230 kV line from Remington Substation to Gordonsville Substation utilizing existing ROW	Dominion (100%)
b2686.11	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%)
b2686.2	Install a 3rd 230/115 kV transformer at Gordonsville Substation	Dominion (100%)

*Neptune Regional Transmission System, LLC

~~** East Coast Power, LLC~~

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

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement Responsible Customer(s)	
b2686.3	Upgrade Line 2088 between Gordonsville Substation and Louisa CT Station		Dominion (100%)
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 50kA 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 <u>1.97</u> %) / BGE (14.37 <u>14.46</u> %) / Dominion (35.11 <u>35.33</u> %) / DPL (3.76 <u>3.78</u> %) / ECP (0.29%) / HTP (0.34%) / JCPL (3.31 <u>3.33</u> %) / ME (2.51 <u>2.53</u> %) / Neptune (0.63%) / PECO (6.26 <u>6.30</u> %) / PEPCO (20.23 <u>20.36</u> %) / PPL (3.94 <u>3.97</u> %) / PSEG (7.29 <u>7.34</u> %)

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		DFAX Allocation: Dominion (100%)
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%)

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 500kV	Dominion (100%)
b2759	Rebuild Line #550 Mt. Storm – Valley 500kV	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 115kV	Dominion (100%)
b2815	Build a new Pinewood 115kV switching station at the tap serving North Doswell DP with a 115kV four breaker ring bus	Dominion (100%)
b2842	Update the nameplate for Mount Storm 500 kV "57272" to be 50kA breaker	Dominion (100%)
b2843	Replace the Mount Storm 500 kV "G2TY" with 50kA breaker	Dominion (100%)
b2844	Replace the Mount Storm 500 kV "G2TZ" with 50kA breaker	Dominion (100%)
b2845	Update the nameplate for Mount Storm 500 kV "G3TSX1" to be 50kA breaker	Dominion (100%)
b2846	Update the nameplate for Mount Storm 500 kV "SX172" to be 50kA breaker	Dominion (100%)
b2847	Update the nameplate for Mount Storm 500 kV "Y72" to be 50kA breaker	Dominion (100%)
b2848	Replace the Mount Storm 500 kV "Z72" with 50kA 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%)

Attachment B

Revisions to Schedule 12- Appendix
and Appendix A 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 (91.46%) / PSEG (8.31%) / RE (0.23%)
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%)

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 500/230kV substation in AEC area. The high side will be tapped on the Salem - East Windsor 500kV circuit and the low side will be tapped on the Churchtown - Cumberland 230kV circuit.	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 500/230kV substation in AEC area, the high side will be tapped on the Salem - East Windsor 500kV circuit and the low side will be tapped on the Churchtown - Cumberland 230kV circuit.	AEC (65.23%) / JCPL (25.87%) / Neptune* (2.55%) / PSEG (6.35%)††

* 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

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 138kV circuit		AEC (65.23%) / JCPL (25.87%) / Neptune* (2.55%) / PSEG (6.35%)
b0212	Substation upgrades at Union and Corson 138kV		AEC (65.23%) / JCPL (25.87%) / Neptune* (2.55%) / PSEG (6.35%)
b0214	Install 50 MVAR capacitor at Cardiff 230kV 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%)

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 – Goucestr 230 kV circuit (AE portion)	JCPL (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)
b1598	Reconductor Sherman Av – Carl’s Corner 69kV 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 (89.21%) / JCPL (4.76%) / PSEG (5.80%) / RE (0.23%)
b2157	Re-build 5.3 miles of the Corson - Tuckahoe 69 kV circuit	AEC (100%)

* Neptune Regional Transmission System, 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 500/230kV 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%) / PEPCO (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%) / PEPCO (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%) / PEPCO (4.01%) / PPL (3.00%)

* Neptune Regional Transmission System, LLC

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 (9.03%) / DPL (16.90%) / JCPL (9.67%) / ME (1.48%) / Neptune* (0.95%) / PECO (30.88%) / PPL (16.46%) / PSEG (14.11%) / 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 wavetrapp and raise operating temperature on Conastone – Otter Creek 230 kV line to 165 deg		AEC (6.31%) / DPL (8.70 %) / JCPL (14.62%) / ME (10.65%) / Neptune* (1.38%) / PECO (15.75%) / PPL (21.14%) / PSEG (20.68%) / 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (11.40%) / ComEd (6.13%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (11.40%) / ComEd (6.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

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

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 (16.1%) / PEPCO (6.6%)
b1055 Upgrade wire drops at Center 115kV 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 115/13kV station	BGE (100%)
b1606.2	Installing 115kV 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 115kV substation to 80kA	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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
b0295	Raise conductor temperature of North Seaford – Pine Street – Dupont Seaford		DPL (100%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
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%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
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 (69.65%) / PECO (17.30%) / PSEG (12.56%) / RE (0.49%)
b0737	Build a new Indian River – Bishop 138 kV line	DPL (100%)
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%)

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0751	Add two additional breakers at Keeney 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
b0873	Build 2nd Glasgow-Mt Pleasant 138 kV line	DPL (100%)
b0874	Reconfigure Brandywine substation	DPL (100%)

*Neptune Regional Transmission System, LLC

Delmarva Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
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%)
b1899.1	Install new variable reactors at Indian River and Nelson 138 kV	DPL (100%)

* Neptune Regional Transmission System, 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)
b1899.2	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

(4) Jersey Central Power & Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0123	Add 180 MVAR of distributed capacitors. 65 MVAR in northern JCPL and 115 MVAR in southern JCPL	JCPL (100%)
b0124.1	Add a 72 MVAR capacitor at Kittatinny 230 kV	JCPL (100%)
b0124.2	Add a 130 MVAR capacitor at Manitou 230 kV	JCPL (100%)
b0132	Reconductor Portland – Kittatinny 230 kV with 1590 ACSS	JCPL (100%)
b0132.1	Replace terminal equipment on the Portland – Kittatinny 230 kV and CB at the Kittatinny bus	JCPL (100%)
b0132.2	Replace terminal equipment on the Portland – Kittatinny 230 kV and CB at the Portland bus	JCPL (100%)
b0173	Replace a line trap at Newton 230kV substation for the Kittatinny-Newton 230kV circuit	JCPL (100%)
b0174	Upgrade the Portland – Greystone 230kV circuit	<p><i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217,</i></p> <p>2017: \$1,442,372 2018: \$1,273,748 2019: \$1,235,637</p> <p>JCPL (35.98%) / Neptune* (5.76%) / PSEG (55.27%) RE (2.99%)</p>
b0199	Greystone 230kV substation: Change Tap of limiting CT and replace breaker on the Greystone Whippany (Q1031) 230kV line	JCPL (100%)
b0200	Greystone 230kV substation: Change Tap of limiting CT on the West Wharton	JCPL (100%)

	Greystone (E1045) 230kV line		
--	---------------------------------	--	--

* Neptune Regional Transmission System, LLC

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0202	Kittatinny 230kV substation: Replace line trap on Kittatinny Pohatcong (L2012) 230kV line; Pohatcong 230kV substation: Change Tap of limiting CT on Kittatinny Pohatcong (L2012) 230kV line		JCPL (100%)
b0203	Smithburg 230kV Substation: Replace line trap on the East Windsor Smithburg (E2005) 230kV line; East Windsor 230kV substation: Replace line trap on the East Windsor Smithburg (E2005) 230kV line		JCPL (100%)
b0204	Install 72Mvar capacitor at Cookstown 230kV substation		JCPL (100%)
b0267	Reconductor JCPL 2 mile portion of Kittatinny – Newton 230 kV line		JCPL (100%)
b0268	Reconductor the 8 mile Gilbert – Glen Gardner 230 kV circuit	<p><i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217,</i></p> <p>2017: \$734,194 2018: \$646,180 2019: \$628,066</p>	JCPL (62.43%) / Neptune* (3.03%) / PSEG (33.08%) / RE (1.46%)

* Neptune Regional Transmission System, LLC

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0279.1	Install 100 MVAR capacitor at Glen Gardner substation	JCPL (100%)
b0279.2	Install MVAR capacitor at Kittatinny 230 kV substation	JCPL (100%)
b0279.3	Install 17.6 MVAR capacitor at Freneau 34.5 kV substation	JCPL (100%)
b0279.4	Install 6.6 MVAR capacitor at Waretown #1 bank 34.5 kV substation	JCPL (100%)
b0279.5	Install 10.8 MVAR capacitor at Spottswood #2 bank 34.5 kV substation	JCPL (100%)
b0279.6	Install 6.6 MVAR capacitor at Pequannock N bus 34.5 kV substation	JCPL (100%)
b0279.7	Install 6.6 MVAR capacitor at Haskell P bus 34.5 kV substation	JCPL (100%)
b0279.8	Install 6.6 MVAR capacitor at Pinewald #2 Bank 34.5 kV substation	JCPL (100%)
b0279.9	Install 6.6 MVAR capacitor at Matrix 34.5 kV substation	JCPL (100%)
b0279.10	Install 6.6 MVAR capacitor at Hamburg Boro Q Bus 34.5 kV substation	JCPL (100%)
b0279.11	Install 6.6 MVAR capacitor at Newburg Q Bus 34.5 kV substation	JCPL (100%)
b0286	Install 130 MVAR capacitor at Whippany 230 kV	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0289	Install 600 MVAR Dynamic Reactive Device in the Whippany 230 kV vicinity		AEC (0.66%) / JCPL (30.90%) / Neptune* (5.05%) / PSEG (60.69%) / RE (2.70%)
b0289.1	Install additional 130 MVAR capacitor at West Wharton 230 kV substation		JCPL (100%)
b0292	Replace a 1600A line trap at Atlantic Larrabee 230 kV substation		JCPL (100%)
b0350	Implement Operating Procedure of closing the Glendon – Gilbert 115 kV circuit		JCPL (100%)

* Neptune Regional Transmission System, LLC

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0356	Replace wave trap on the Portland – Greystone 230 kV		JCPL (100%)
b0361	Change tap of limiting CT at Morristown 230 kV		JCPL (100%)
b0362	Change tap setting of limiting CT at Pohatcong 230 kV		JCPL (100%)
b0363	Change tap setting of limiting CT at Windsor 230 kV		JCPL (100%)
b0364	Change tap setting of CT at Cookstown 230 kV		JCPL (100%)
b0423.1	Upgrade terminal equipment at Readington (substation conductor)		JCPL (100%)
b0520	Replace Gilbert circuit breaker 12A		JCPL (100%)
b0657	Construct Boston Road 34.5 kV stations, construct Hyson 34.5 stations, add a 7.2 MVAR capacitor at Boston Road 34.5 kV		JCPL (100%)
b0726	Add a 2 nd Raritan River 230/115 kV transformer	<i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217,</i> 2017: \$950,666 2018: \$846,872 2019: \$827,854	AEC (2.45%) / JCPL (97.55%)
b1020	Replace wave trap at Englishtown on the Englishtown - Manalapan circuit		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1075	Replace the West Wharton - Franklin - Vermont D931 and J932 115 kV line conductors with 1590 45/7 ACSR wire between the tower structures 78 and 78-B	JCPL (100%)
b1154.1	Upgrade the Whippany 230 kV breaker 'JB'	JCPL (100%)
b1155.1	Upgrade the Red Oak 230 kV breaker 'G1047'	JCPL (100%)
b1155.2	Upgrade the Red Oak 230 kV breaker 'T1034'	JCPL (100%)
b1345	Install Martinsville 4-breaker 34.5 rink bus	JCPL (100%)
b1346	Reconductor the Franklin – Humburg (R746) 4.7 miles 34.5 kV line with 556 ACSR and build 2.7 miles 55 ACSR line extension to Sussex	JCPL (100%)
b1347	Replace 500 CU substation conductor with 795 ACSR on the Whitesville – Asbury Tap 34.5 kV (U47) line	JCPL (100%)
b1348	Upgrade the Newton – North Newton 34.5 kV (F708) line by adding a second underground 1250 CU egress cable	JCPL (100%)
b1349	Reconductor 5.2 miles of the Newton – Woodruffs Gap 34.5 kV (A703) line with 556 ACSR	JCPL (100%)
b1350	Upgrade the East Flemington – Flemington 34.5 kV (V724) line by adding second underground 1000 AL egress cable and replacing 4/0	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1351	Add 34.5 kV breaker on the Larrabee A and D bus tie		JCPL (100%)
b1352	Upgrade the Smithburg – Centerstate Tap 34.5 kV (X752) line by adding second 200 ft underground 1250 CU egress cable		JCPL (100%)
b1353	Upgrade the Larrabee – Laurelton 34.5 kV (Q43) line by adding second 700 ft underground 1250 CU egress cable		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1354	Add four 34.5 kV breakers and re-configure A/B bus at Rockaway	JCPL (100%)
b1355	Build a new section 3.3 miles 34.5 kV 556 ACSR line from Riverdale to Butler	JCPL (100%)
b1357	Build 10.2 miles new 34.5 kV line from Larrabee – Howell	JCPL (100%)
b1359	Install a Troy Hills 34.5 kV by-pass switch and reconfigure the Montville – Whippany 34.5 kV (D4) line	JCPL (100%)
b1360	Reconductor 0.7 miles of the Englishtown – Freehold Tap 34.5 kV (L12) line with 556 ACSR	JCPL (100%)
b1361	Reconductor the Oceanview – Neptune Tap 34.5 kV (D130) line with 795 ACSR	JCPL (100%)
b1362	Install a 23.8 MVAR capacitor at Wood Street 69 kV	JCPL (100%)
b1364	Upgrade South Lebanon 230/69 kV transformer #1 by replacing 69 kV substation conductor with 1590 ACSR	JCPL (100%)
b1399.1	Upgrade the Whippany 230 kV breaker ‘QJ’	JCPL (100%)
b1673	Rocktown - Install a 230/34.5 kV transformer by looping the Pleasant Valley - E Flemington 230 kV Q-2243 line (0.4 miles) through the Rocktown Substation	JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required	Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1674	Build a new Englishtown - Wyckoff St 15 mile, 115 kV line and install 115/34.5 kV transformer at Wyckoff St		JCPL (100%)
b1689	Atlantic Sub - 230 kV ring bus reconfiguration. Put a “source” between the Red Bank and Oceanview “loads”		JCPL (100%)
b1690	Build a new third 230 kV line into the Red Bank 230 kV substation		JCPL (100%)
b1853	Install new 135 MVA 230/34.5 kV transformer with one 230 kV CB at Eaton Crest and create a new 34.5 kV CB straight bus to feed new radial lines to Locust Groove and Interdata/Woodbine		JCPL (100%)
b1854	Readington I737 34.5 kV Line - Parallel existing 1250 CU UG cable (440 feet)		JCPL (100%)
b1855	Oceanview Substation - Relocate the H216 breaker from the A bus to the B bus		JCPL (100%)
b1856	Madison Tp to Madison (N14) line - Upgrade limiting 250 Cu substation conductor with 795 ACSR at Madison sub		JCPL (100%)
b1857	Montville substation - Replace both the 397 ACSR and the 500 Cu substation conductor with 795 ACSR on the 34.5 kV (M117) line		JCPL (100%)

Jersey Central Power & Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1858	Reconductor the Newton - Mohawk (Z702) 34.5 kV line with 1.9 miles of 397 ACSR		JCPL (100%)
b2003	Construct a Whippany to Montville 230 kV line (6.4 miles)		JCPL (100%)
b2015	Build a new 230 kV circuit from Larrabee to Oceanview	<i>The following rates are consistent with the settlement agreement filed in and approved by the Commission in Docket No. ER17-217,</i> 2017: \$9,616,241 2018: \$18,839,128 2019: \$19,935,489	JCPL (37.04%) / NEPTUNE* (24.40%) / PSEG (37.08%) / RE (1.48%)
b2147	At Deep Run, install 115 kV line breakers on the B2 and C3 115 kV lines		JCPL (100%)

* Neptune Regional Transmission System, LLC

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 230Kv series reactor and 2- 100MVAR PLC switched capacitors at Hunterstown		AEC (6.75%) / APS (4.00%) / DPL (9.16%) / JCPL (16.96%) / ME (10.60%) / Neptune* (1.70%) / PECO (19.12%) / PPL (8.55%) / PSEG (22.82%) / RE (0.34%)
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

(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 115kV breaker '95312'		ME (100%)
b1001	Replace Portland 115kV 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

(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 500kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1801	Build a 250 MVAR SVC at Altoona 230 kV		AEC (6.48%) / AEP (2.58%) / APS (6.89%) / BGE (6.58%) / DPL (12.40%) / Dominion (14.90%) / JCPL (8.15%) / ME (6.21%) / Neptune* (0.82%) / PECO (21.58%) / PPL (4.89%) / PSEG (8.19%) / RE (0.33%)

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

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

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

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0284.3	Replace wave trap and upgrade a bus section at Keystone 500 kV – on the Keystone – Airydale 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0285.2	Replace wave trap and relay at Conemaugh 500 kV – on the Conemaugh – Keystone 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0370	Install 500 MVAR Dynamic Reactive Device at Airydale 500 kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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

Required Transmission Enhancements Customer(s)	Annual Revenue Requirement	Responsible
b0376	Install 300 MVAR capacitor at Conemaugh 500 kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0550	Install 25 MVAR capacitor at Lewis Run 115 kV substation	AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
b0551	Install 25 MVAR capacitor at Saxton 115 kV substation	AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
b0552	Install 50 MVAR capacitor at Altoona 230 kV substation	AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)

* 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)
b0553 Install 50 MVAR capacitor at Raystown 230 kV substation		AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
b0555 Install 100 MVAR capacitor at Johnstown 230 kV substation		AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
b0556 Install 50 MVAR capacitor at Grover 230 kV substation		AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
b0557 Install 75 MVAR capacitor at East Towanda 230 kV substation		AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
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

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%)

* 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)
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 (3.86%) / APS (6.45%) / BGE (17.33%) / DL (0.33%) / JCPL (12.95%) / ME (7.10%) / PECO (11.88%) / PEPSCO (0.57%) / PPL (15.89%) / PSEG (21.15%) / RE (0.74%) / NEPTUNE* (1.75%)
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%)

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

Required Transmission Enhancements
Customer(s)

Annual Revenue Requirement Responsible

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%)

* Neptune Regional Transmission System, LLC

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

Required Transmission Enhancements
Customer(s)

Annual Revenue Requirement Responsible

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 (6.48%) / AEP (2.58%) / APS (6.89%) / BGE (6.58%) / DPL (12.40%) / Dominion (14.90%) / JCPL (8.15%) / ME (6.21%) / NEPTUNE* (0.82%) / PECO (21.58%) / PPL (4.89%) / PSEG (8.19%) / RE (0.33%)

* 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)
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%)

* Neptune Regional Transmission System, LLC

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

Required Transmission Enhancements
Customer(s)

Annual Revenue Requirement Responsible

b1993	Relocate the Erie South 345 kV line terminal		APS (10.19%) / JCPL (5.19%) / Neptune* (0.55%) / PENELEC (71.38%) / PSEG (12.21%) / 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 (33.49%) / JCPL (8.72%) / ME (5.57%) / Neptune (0.87%) / PENELEC (37.14%) / PSEG (13.67%) / 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%)

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

Required Transmission Enhancements
Customer(s)

Annual Revenue Requirement Responsible

b1998	Install a 75 MVAR 115 kV Capacitor at Shawville		PENELEC (100%)
b2016	Reconductor bus at Wayne 115 kV station		PENELEC (100%)

* Neptune Regional Transmission System, LLC

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0180	Replace Whitpain 230kV circuit breaker #165	PECO (100%)
b0181	Replace Whitpain 230kV circuit breaker #J105	PECO (100%)
b0182	Upgrade Plymouth Meeting 230kV circuit breaker #125	PECO (100%)
b0205	Install three 28.8Mvar capacitors at Planebrook 35kV substation	PECO (100%)
b0206	Install 161Mvar capacitor at Planebrook 230kV 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 161Mvar capacitor at Newlinville 230kV substation	AEC (14.20%) / DPL (24.39%) / PECO (57.94%) / PSEG (3.47%)
b0208	Install 161Mvar capacitor Heaton 230kV 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 230kV 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 500/230 kV substation in PECO, and tap the high side on the Elroy – Whitpain 500 kV and the low side on the North Wales – Perkiomen 230 kV circuit	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†

* Neptune Regional Transmission System, LLC

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0269	Install a new 500/230 kV substation in PECO, and tap the high side on the Elroy – Whitpain 500 kV and the low side on the North Wales – Perkiomen 230 kV circuit	AEC (8.25%) / DPL (9.56%) / PECO (82.19%)††
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%)††

* 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

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0269.7	Replace North Wales 230 kV breaker #105	PECO (100%)
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%
b0280.4	Install 18 MVAR capacitor at Waverly 13.8 kV substation	PECO 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

PECO Energy Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0287	Install 600 MVAR Dynamic Reactive Device in Whitpain 500 kV vicinity	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
b0354	Eddystone – Island Road Upgrade line terminal equipment	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)
b0355	Reconductor Master – North Philadelphia 230 kV line	PECO 100%
b0357	Reconductor Buckingham – Pleasant Valley 230 kV	JCPL (37.89%) / Neptune* (4.55%) / PSEG (55.19%) / RE (2.37%)
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%)

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 (0.73%) / JCPL (17.52%) / NEPTUNE* (1.72%) / PECO (44.88%) / PSEG (33.83%) / RE (1.32%)
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 (17.46%) / NEPTUNE* (1.71%) / PECO (45.51%) / PSEG (34.00%) / RE (1.32%)
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

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%)

* Neptune Regional Transmission System, LLC

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 (4.17%) / Neptune (0.44%) / PECO (82.73%) / PSEG (12.18%) / 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

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 (5.12%) / Neptune (0.54%) / PECO (79.46%) / PSEG (14.31%) / RE (0.57%)
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 (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)

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 (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)
b1398.12	Replace Graysferry 230 kV breaker ‘115’		PECO (100%)
b1398.13	Upgrade Peach Bottom 500 kV breaker ‘225’		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†
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 (3.06%) / ME (0.83%) / PECO (91.70%) / PEPCO (1.94%) / PPL (2.47%)
b1591	Reconductor the underground portion of the Richmond – Waneeta 230 kV and replace terminal equipment		BGE (4.54%) / DL (0.27%) / ME (1.04%) / PECO (88.11%) / PEPCO (2.79%) / PPL (3.25%)

* Neptune Regional Transmission System, LLC

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		PECO (100%)
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 (70.24%) / JCPL (6.07%) / ATSI (1.24%) / PSEG (21.01%) / RE (0.84%) / NEPTUNE* (0.60%)
b2140	Install a 3rd Emilie 230/138 kV transformer		PECO (100%)
b2145	Replace two sections of conductor inside Richmond substation		PECO (100%)

* Neptune Regional Transmission System, 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 500kV substation to increase rating of Elroy - Hosensack 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0172.1	Replace wave trap at Alburdis 500kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)
b0284.2	Replace two wave traps at Juniata 500 kV – on the two Juniata – Airydale 500 kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 (4.56%) / Neptune* (0.37%) / PECO (1.79%) / PENELEC (0.33%) / PPL (86.79%) / PSEG (5.94%) / RE (0.22%)

* Neptune Regional Transmission System, LLC

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0487.1	Install Lackawanna 500/230 kV transformer and upgrade 230 kV substation and switchyard	PENELEC (16.93%) / PPL (77.74%) / PSEG (5.14%) / 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 (6.31%) / DPL (8.70%) / JCPL (14.62%) / ME (10.65%) / Neptune* (1.38%) / PECO (15.75%) / PPL (21.14%) / PSEG (20.68%) / RE (0.77%)

*Neptune Regional Transmission System, LLC

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)
b1527	Construct a new 230/69 kV North Lancaster substation. The sub will be supplied from the SAKR-BERK 230kV Line	PPL (100%)
b1527.1	Construct new 69/138 kV transmission from North Lancaster 230/69 kV sub to Brecknock and Honeybrook areas	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 69kV 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 69kV lines		PPL (100%)
b1534	Rebuild 1.4 miles of the Sunbury-Milton 69kV		PPL (100%)
b1601	Re-configure the Breinigsville 500 kV substation with addition two 500 kV circuit breakers		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†
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

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 (1.11%) / JCPL (9.68%) / ME (19.56%) / Neptune* (0.76%) / PECO (6.06%) / PPL (50.95%) / PSEG (11.43%) / RE (0.45%)
b2006.1	Install North Lancaster 500/230 kV substation (500 kV portion)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* Neptune Regional Transmission System, LLC

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%)

* Neptune Regional Transmission System, LLC

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)
b0367.1 Reconductor circuit “23035” for Dickerson – Quince Orchard 230 kV		AEC (1.78%) / BGE (26.54%) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / Neptune* (0.25%) / PECO (4.80%) / PEPCO (52.50%) / PPL (3.23%) / PSEG (3.82%)
b0367.2 Reconductor circuit “23033” for Dickerson – Quince Orchard 230 kV		AEC (1.78%) / BGE (26.54%) / DPL (3.25%) / JCPL (2.67%) / ME (1.16%) / Neptune* (0.25%) / PECO (4.80%) / PEPCO (52.50%) / PPL (3.23%) / PSEG (3.82%)
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

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)
0512	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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.7	Advance n0772 (Replace Chalk Point 230 kV breaker (1A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.9 Advance n0774 (Replace Chalk Point 230 kV breaker (2A) with 80 kA breaker)		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.11	Advance n0776 (Replace Chalk Point 230 kV breaker (2C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.13	Advance n0778 (Replace Chalk Point 230 kV breaker (3B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.15	Advance n0780 (Replace Chalk Point 230 kV breaker (4A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.17	Advance n0782 (Replace Chalk Point 230 kV breaker (5A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.19	Advance n0784 (Replace Chalk Point 230 kV breaker (6A) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.21	Advance n0786 (Replace Chalk Point 230 kV breaker (7B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.23	Advance n0788 (Replace Chalk Point 230 kV breaker (8B) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.25	Advance n0790 (Replace Chalk Point 230 Kv breaker (1C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.27	Advance n0792 (Replace Chalk Point 230 Kv breaker (5C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0512.29	Advance n0794 (Replace Chalk Point 230 Kv breaker (7C) with 80 kA breaker)	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* Neptune Regional Transmission System, LLC

Potomac Electric Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0561 Install 300 MVAR capacitor at Dickerson Station "D" 230 kV substation		AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
b0562 Install 500 MVAR capacitor at Brighton 230 kV substation		AEC (8.64%) / APS (1.70%) / DPL (12.33%) / JCPL (18.30%) / ME (1.56%) / Neptune* (1.78%) / PECO (21.94%) / PPL (6.45%) / PSEG (26.32%) / RE (0.98%)
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%)

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%)

* Neptune Regional Transmission System, LLC

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%)

* Neptune Regional Transmission System, LLC

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 (2.40%) / APS (3.83%) / BGE (65.87%) / DPL (4.44%) / JCPL (3.94%) / ME (2.16%) / Neptune* (0.39%) / PECO (8.37%) / PPL (2.84%) / PSEG (5.54%) / RE (0.22%)
b1593 Reconductor the Bowie - Burtonsville 230 kV circuit and upgrade terminal equipments at Bowie and Burtonsville 230 kV substations		AEC (2.40%) / APS (3.83%) / BGE (65.87%) / DPL (4.44%) / JCPL (3.94%) / ME (2.16%) / Neptune* (0.39%) / PECO (8.37%) / PPL (2.84%) / PSEG (5.54%) / 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 (2.39%) / APS (3.85%) / BGE (65.87%) / DPL (4.45%) / JCPL (3.94%) / ME (2.16%) / Neptune* (0.39%) / PECO (8.35%) / PPL (2.84%) / PSEG (5.54%) / 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 (2.39%) / APS (3.85%) / BGE (65.87%) / DPL (4.45%) / JCPL (3.94%) / ME (2.16%) / Neptune* (0.39%) / PECO (8.35%) / PPL (2.84%) / PSEG (5.54%) / 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

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 100MVAR capacitor at West Orange 138kV 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 230/138kV transformer at Metuchen substation	PSEG (99.80%) / RE (0.20%)
b0162	Upgrade the Edison – Meadow Rd 138kV “Q” circuit	PSEG (100%)
b0163	Upgrade the Edison – Meadow Rd 138kV “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 (1.76%) / JCPL (26.50%) / Neptune* (10.85%) / PSEG (60.89%)
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

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0172.2	Replace wave trap at Branchburg 500kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0184	Replace Hudson 230kV circuit breakers #1-2	PSEG (100%)
b0185	Replace Deans 230kV circuit breakers #9-10	PSEG (100%)
b0186	Replace Essex 230kV 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 (100%)
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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0358	Reconductor the PSEG portion of Buckingham – Pleasant Valley 230 kV, replace wave trap and metering transformer		PSEG (100%)

* Neptune Regional Transmission System, LLC

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 wavetrap 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 wavetrap 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 (42.63%) / Neptune* (3.65%) / PSEG (51.45%) / RE (2.27%)
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%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b0446.3	Upgrade Bayway 138 kV breaker #6-7	PSEG (100%)
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	PSEG (96.40%) / RE (3.60%)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)†

* 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

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b489.1	Replace Athenia 230 kV breaker 31H		PSEG (100%)
b489.2	Replace Bergen 230 kV breaker 10H		PSEG (100%)
b489.3	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 (5.14%) / ComEd (0.29%) / Dayton (0.03%) / DPL (1.78%) / JCPL (33.04%) / Neptune* (6.38%) / PECO (10.14%) / PENELEC (0.57%) / PSEG (41.10%) / RE (1.53%) ††
b0489.5	Replace Roseland 230 kV breaker '42H' with 80 kA		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.7	Replace Roseland 230 kV breaker '71H' with 80 kA	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.10	Replace Roseland 230 kV breaker '21H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.12	Replace Roseland 230 kV breaker '12H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0489.14	Replace Roseland 230 kV breaker '41H'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0498	Loop the 5021 circuit into New Freedom 500 kV substation	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* Neptune Regional Transmission System, LLC

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%)

*Neptune Regional Transmission System, LLC

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%)

*Neptune Regional Transmission System, LLC

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%)

*Neptune Regional Transmission System, LLC

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%)

*Neptune Regional Transmission System, LLC

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0829.6	Replace Branchburg 500 kV breaker 91X	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0829.9	Replace Branchburg 230 kV breaker 102H	PSEG (100%)

*Neptune Regional Transmission System, LLC

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

*Neptune Regional Transmission System, LLC

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 (2.57%) / Dayton (0.09%) / PENELEC (2.82%) / PSEG (90.97%) / RE (3.55%)
b0832	Build Hudson 500 kV switching station as part of Branchburg – Hudson 500 kV project		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0833	Build Roseland 500 kV switching station as part of Branchburg – Hudson 500 kV project		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*Neptune Regional Transmission System, LLC

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 (2.57%) / Dayton (0.09%) / PENELEC (2.82%) / PSEG (90.97%) / RE (3.55%)
b0835	Build Hudson 230 kV transmission lines as part of Roseland – Hudson 500 kV project as part of Branchburg – Hudson 500 kV project	ComEd (2.57%) / Dayton (0.09%) / PENELEC (2.82%) / PSEG (90.97%) / RE (3.55%)
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 (2.57%) / Dayton (0.09%) / PENELEC (2.82%) / PSEG (90.97%) / RE (3.55%)
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%)

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 (29.27%) / NEPTUNE* (2.76%) / PSEG (65.42%) / RE (2.55%)
b1018	Reconductor South Mahwah - Waldwick 345 kV K-3411 circuit		JCPL (29.44%) / NEPTUNE* (2.76%) / PSEG (65.25%) / RE (2.55%)
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%)

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%)

*Neptune Regional Transmission System, LLC

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		PSEG (96.18%) / RE (3.82%)
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 (0.28%) / BGE (1.18%) / ComEd (2.83%) / Dayton (0.16%) / JCPL (1.43%) / Neptune (0.09%) / PENELEC (3.63%) / PEPCO (1.27%) / PSEG (85.73%) / RE (3.40%)

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 (0.28%) / BGE (1.18%) / ComEd (2.83%) / Dayton (0.16%) / JCPL (1.43%) / Neptune (0.09%) / PENELEC (3.63%) / PEPCO (1.27%) / PSEG (85.73%) / RE (3.40%)
b1304.3	Build second 230 kV underground cable from Bergen to Athenia	AEC (0.28%) / BGE (1.18%) / ComEd (2.83%) / Dayton (0.16%) / JCPL (1.43%) / Neptune (0.09%) / PENELEC (3.63%) / PEPCO (1.27%) / PSEG (85.73%) / RE (3.40%)
b1304.4	Build second 230 kV underground cable from Hudson to South Waterfront	AEC (0.28%) / BGE (1.18%) / ComEd (2.83%) / Dayton (0.16%) / JCPL (1.43%) / Neptune (0.09%) / PENELEC (3.63%) / PEPCO (1.27%) / PSEG (85.73%) / RE (3.40%)

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 (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)
b1398.1	Install shunt reactor at Gloucester to offset cable charging		JCPL (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)
b1398.2	Reconfigure the Cuthbert station to breaker and a half scheme		JCPL (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)
b1398.3	Build a second 230 kV parallel overhead circuit from Mickelton – Gloucester		JCPL (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)

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 (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)
b1398.7	Reconductor the Camden – Richmond 230 kV circuit (PSEG portion) and upgrade terminal equipments at Camden substations		JCPL (13.03%) / NEPTUNE (1.20%) / PECO (51.93%) / PEPCO (0.58%) / PSEG (31.99%) / RE (1.27%)
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%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1410	Replace Salem 500 kV breaker '11X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1411	Replace Salem 500 kV breaker '12X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1412	Replace Salem 500 kV breaker '20X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1413	Replace Salem 500 kV breaker '21X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1414	Replace Salem 500 kV breaker '31X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1415	Replace Salem 500 kV breaker '32X'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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 (10.48%) / Neptune* (1.00%) / PECO (31.30%) / PSEG (55.03%) / RE (2.19%)
b1589	Re-configure the Kearny 230 kV substation and loop the P-2216-1 (Essex - NJT Meadows) 230 kV circuit		ATSI (10.02%) / PENELEC (9.74%) / PSEG (77.16%) / RE (3.08%)
b1590	Upgrade the PSEG portion of the Camden Richmond 230 kV circuit to six wire conductor and replace terminal equipment at Camden		BGE (3.06%) / ME (0.83%) / PECO (91.70%) / PEPCO (1.94%) / PPL (2.47%)
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

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 (4.97%) / JCPL (44.34%) / NEPTUNE* (0.53%) / PSEG (48.23%) / RE (1.93%)
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

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 (96.16%) / RE (3.84%)

*Neptune Regional Transmission System, 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0218 Install third Wylie Ridge 500/345kV transformer	As specified under the procedures detailed in Attachment H-18B, Section 1.b	AEC (11.83%) / DPL (19.40%) / Dominion (13.81%) / JCPL (15.56%) / PECO (39.40%)
b0220 Upgrade coolers on Wylie Ridge 500/345 kV #7		AEC (11.83%) / DPL (19.40%) / Dominion (13.81%) / JCPL (15.56%) / PECO (39.40%)
b0229 Install fourth Bedington 500/138 kV		APS (50.98%) / BGE (13.42%) / DPL (2.03%) / Dominion (14.50%) / ME (1.43%) / PEPCO (17.64%)
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%)

* 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
b0343	Replace Doubs 500/230 kV transformer #2	As specified under the procedures detailed in Attachment H-18B, Section 1.b
b0344	Replace Doubs 500/230 kV transformer #3	As specified under the procedures detailed in Attachment H-18B, Section 1.b
b0345	Replace Doubs 500/230 kV transformer #4	As specified under the procedures detailed in Attachment H-18B, Section 1.b

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
b0347.2	Build new Mt. Storm – Meadow Brook 500 kV circuit	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)
b0347.3	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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.6	Upgrade (per ABB inspection) breaker HL-6	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.8	Upgrade (per ABB inspection) breaker HL-8	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.10	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-1	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.12	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-4	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.14	Upgrade (per ABB Inspection) Hatfield 500 kV breakers HFL-7	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.16	Upgrade (per ABB inspection) Harrison 500 kV breaker 'HL-3'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.18	Replace Meadow Brook 138 kV breaker 'MD-11'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.20	Replace Meadow Brook 138 kV breaker 'MD-13'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.22	Replace Meadow Brook 138 kV breaker 'MD-15'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.24	Replace Meadow Brook 138 kV breaker 'MD-17'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.26	Replace Meadow Brook 138 kV breaker 'MD-22#1 CAP'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.28	Replace Meadow Brook 138 kV breaker 'MD-5'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.29	Replace Meadowbrook 138 kV breaker 'MD-6'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.30	Replace Meadowbrook 138 kV breaker 'MD-7'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.31	Replace Meadowbrook 138 kV breaker 'MD-8'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*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)
b0347.32	Replace Meadowbrook 138 kV breaker 'MD-9'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0347.33	Replace Meadow Brook 138kV breaker 'MD-1'	APS (100%)
b0347.34	Replace Meadow Brook 138kV 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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%)

* 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)
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 138kV 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0419	Install a breaker failure auto-restoration scheme at Bedington 500 kV for the failure of the #1 and #2 breakers	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 138kV 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 AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0492	Construct a Welton Spring to Kemptown 765 kV line (APS equipment)	As specified under the procedures detailed in Attachment H-19B AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 (97.69%) / DL (0.96%) / PENELEC (1.09%) / 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 (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)
b0675.2	Convert Walkersville - Catoctin 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)

*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)
b0675.3	Convert Ringgold - Catoctin 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)
b0675.4	Convert Catoctin - Carroll 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)
b0675.5	Convert portion of Ringgold Substation from 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)
b0675.6	Convert Catoctin Substation from 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)
b0675.7	Convert portion of Carroll Substation from 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)
b0675.8	Convert Monocacy Substation from 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)

*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)
b0675.9	Convert Walkersville Substation from 138 kV to 230 kV	AEC (1.02%) / APS (82.01%) / DPL (0.85%) / JCPL (1.75%) / ME (6.38%) / NEPTUNE* (0.15%) / PECO (3.09%) / PPL (2.24%) / PSEG (2.42%) / RE (0.09%)
b0676.1	Reconductor Doubs - Lime Kiln (#207) 230kV	AEC (0.64%) / APS (86.77%) / DPL (0.53%) / JCPL (1.93%) / ME (4.05%) / NEPTUNE* (0.18%) / PECO (1.93%) / PENELEC (0.93%) / PSEG (2.92%) / RE (0.12%)
b0676.2	Reconductor Doubs - Lime Kiln (#231) 230kV	AEC (0.64%) / APS (86.77%) / DPL (0.53%) / JCPL (1.93%) / ME (4.05%) / NEPTUNE* (0.18%) / PECO (1.93%) / PENELEC (0.93%) / PSEG (2.92%) / RE (0.12%)
b0677	Reconductor Double Toll Gate – Riverton with 954 ACSR	APS (100%)
b0678	Reconductor Glen Falls - Oak Mound 138kV 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%)

*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)
b0684	Reconductor Guilford – South Chambersburg with 954 ACSR	APS (100%)
b0685	Replace Ringgold 230/138 kV #3 with larger transformer	APS (72.06%) / JCPL (4.18%) / ME (6.80%) / NEPTUNE* (0.38%) / PECO (4.06%) / PENELEC (5.89%) / PSEG (6.38%) / 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%)

*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)
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%)

*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)
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%)

*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)
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 (78.77%) / PENELEC (14.11%) / PSEG (6.85%) / 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%)

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

*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)
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%)

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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* 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)
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%)
b0545	Remove instantaneous reclose from Eastalco circuit breaker D-28		APS (100%)
b0559	Install 200 MVAR capacitor at Meadow Brook 500 kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0560	Install 250 MVAR capacitor at Kemptown 500 kV substation		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* 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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1804	Install a new 600 MVAR SVC at Meadowbrook 500kV	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 34.5kV, Monocacy 138kV, Ringgold 138kV 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 Catoclin - 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 Catoclin 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 138kV 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%)

* 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)
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%)

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 63kA 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 40kA rated breaker	APS (100%)
b2099	Revise the reclosing of Ridgeley 138 kV breaker 'RC1'	APS (100%)
b2100	Replace Ridgeley 138 kV breaker 'WC4' with 40kA rated breaker	APS (100%)
b2101	Replace Ridgeley 138 kV breaker '1 XFMR OCB' with 40kA rated breaker	APS (100%)
b2102	Replace Armstrong 138 kV breaker 'GARETTRJCT' with 40kA rated breaker	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)
b2103	Replace Armstrong 138 kV breaker 'BURMA' with 40kA rated breaker		APS (100%)
b2104	Replace Armstrong 138 kV breaker 'KITANNING' with 40kA rated breaker		APS (100%)
b2105	Replace Armstrong 138 kV breaker 'KISSINGERJCT' with 40kA rated breaker		APS (100%)
b2106	Replace Wylie Ridge 345 kV breaker 'WK-1' with 63kA rated breaker		APS (100%)
b2107	Replace Wylie Ridge 345 kV breaker 'WK-2' with 63kA rated breaker		APS (100%)
b2108	Replace Wylie Ridge 345 kV breaker 'WK-3' with 63kA rated breaker		APS (100%)
b2109	Replace Wylie Ridge 345 kV breaker 'WK-4' with 63kA rated breaker		APS (100%)
b2110	Replace Wylie Ridge 345 kV breaker 'WK-6' with 63kA rated breaker		APS (100%)
b2111	Replace Wylie Ridge 138 kV breaker 'WK-7' with 63kA 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 63kA 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 138kV 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 138kV Capacitor bank adjust turn-on voltage to 1.0pu with a high limit of 1.04pu, For Crupperneck and Powell Mountain 138kV Capacitor Banks adjust turn-on voltage to 1.01pu with a high limit of 1.035pu		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

(15) Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0164	Reconductor Wolfs - Oswego 138kV with 636 ACSS		ComEd (100%)
b0236.1	Build new West Loop 138 kV substation		ComEd (100%)
b0236.2	Install two new 345 kV circuits from Crawford and Taylor to West Loop and two new 345/138 kV auto-transformers at West Loop.		ComEd (100%)
b0299	Upgrade line 0108 – LaSalle County – Mazon 138 kV with 3.4 miles of 664.8 ACSS		ComEd (100%)
b0301	Increase capacity of Wolfs – Oswego 138 kV line 14304		ComEd (100%)
b0302	Dixon – McGirr 138kV – Replace small piece of conductor on line 10714 and install 138 kV CB at Sandwich		ComEd (100%)
b0303	Install 345 kV CB and change Elwood 345 kV BT to normally closed		ComEd (100%)
b0304	Reconductor line 11106 Electric Junction – North Aurora tap 4 miles		ComEd (100%)
b0305	Normally open East Frankfort 138 kV red-blue bus tie		ComEd (100%)
b0306	Reconductor line Electric Junction – North Aurora (11104 0.3 miles)		ComEd (100%)
b0377	Install a second Byron – Wempletown 345 kV circuit		AEC (0.60%) / BGE (1.32%) / ComEd (86.01%) / Dayton (0.73%) / DL (1.01%) / DPL (0.87%) / Dominion (2.46%) / JCPL (1.41%) / Neptune* (0.14%) / PECO (1.79%) / PEPSCO (1.20%) / PSEG (2.37%) / RE (0.09%)

*Neptune Regional Transmission System, LLC

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0379	Reconductor 10301 & 10302 Lisle – Lombard 138 kV circuits		ComEd (100%)
b0380	Reconductor 17713 from Burnham – Wildwood and 7611 from Wildwood to the Beverly tap		ComEd (100%)
b0394	Reconductor 2.8 miles of Wolfs – Frontenac 138 kV line 14310		ComEd (100%)
b0461	Install a 115.2 MVAR capacitor at Will County 138 kV		ComEd (100%)
b0462	Install a 57.6 MVAR capacitor at Joliet 138 kV		ComEd (100%)
b0463	Install a 115.2 MVAR capacitor at East Frankfort 138 kV		ComEd (100%)
b0464	Increase capacity of 138 kV line 14304 between Oswego TDC 592 to Montgomery TSS 106		ComEd (100%)
b0465	Install a 115.2 MVAR capacitor at Libertyville 138 kV		ComEd (100%)
b0466	Install a 115.2 MVAR capacitor at Prospect Heights 138 kV		ComEd (100%)
b0510	Install two 115.3 MVAR capacitors at Elmhurst 138 kV		ComEd (100%)
b0511	Reconductor the Pleasant Valley – Woodstock 138 kV line		ComEd (100%)
b0546	Install a 20 MVAR capacitor at Shorewood substation		ComEd (100%)
b0547	Install a 15 MVAR capacitor at Wilmington substation		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0569.1	Install a second East Frankfort 345/138 kV autotransformer		ComEd (100%)
b0569.2	Reconductor County Club Hills – Matteson 138 kV circuit		ComEd (100%)
b0661	Replace existing baseline upgrade to install a 2 nd Wolfs 345/138 kV transformer by installing 345/138 kV transformer at Plano ‘Red’		ComEd (100%)
b0662	Add a breaker to Aptakisic 138 kV to split the line in two for the 11708 contingency		ComEd (100%)
b0663	Reconductor East Frankfort - Goodings Grove 345 kV ‘Red’ line 11602		ComEd (100%)
b0686	Install a 115.2 MVAR switched capacitor at East Frankfort 138 kV ‘Red’		ComEd (100%)
b0687	Install a 115.2 MVAR switched capacitor at Plano 138 kV ‘Red’		ComEd (100%)
b0688	Install a 115.2 MVAR switched capacitor at Plano 138 kV ‘Blue’		ComEd (100%)
b0689	Install a 115.2 MVAR switched capacitor at McCook 138 kV ‘Red’		ComEd (100%)
b0690	Install a 115.2 MVAR switched capacitor at McCook 138 kV ‘Blue’		ComEd (100%)
b0691	Install a 115.2 MVAR switched capacitor at Wayne 138 kV ‘Blue’		ComEd (100%)
b0692	Install a 115.2 MVAR switched capacitor at Wayne 138 kV ‘Red’		ComEd (100%)
b0693	Install a 115.2 MVAR switched capacitor at Crawford 138 kV ‘Blue’		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b0694	Install a 115.2 MVAR switched capacitor at Crawford 138 kV 'Red'		ComEd (100%)
b0695	Add a 300 MVAR SVC at Elmhurst 138 kV 'Red'		ComEd (100%)
b0696	Add a 300 MVAR SVC at Elmhurst 138 kV 'Blue'		ComEd (100%)
b0697	Reconductor 0902 Frankfort – New Lenox 138 kV circuit		ComEd (100%)
b0698	Increase capacity of 0902 East Frankfort TSS 66 – Davis Creek TSS 86 Tap 138 kV ~ 1.5 miles		ComEd (100%)
b0699	Install a second 345/138 kV transformer at Plano 'Red'		ComEd (100%)
b0700	Install a third 345/138 kV transformer at Goodings Grove 'Red'		ComEd (100%)
b0738	Install a 115.2 MVAR switched capacitor at Bedford Park 138 kV 'Red'		ComEd (100%)
b0739	Install a 115.2 MVAR switched capacitor at Bedford Park 138 kV 'Blue'		ComEd (100%)
b0740	Install a 57.6 MVAR switched capacitor at Wolfs 138 kV		ComEd (100%)
b0740.2	Increase the size of the Wolfs 138 kV Blue cap from 57.6 to 115.2 MVAR		ComEd (100%)
b0741	Reconductor Waukegan – Gurnee 138 kV line 1607		ComEd (100%)
b0742	Reconductor Waukegan – Gurnee 138 kV line 1603		ComEd (100%)
b1054	Change relay settings on Byron - Wempletown 345 kV to bring relay trip setting up to 115% of Rate C		ComEd (100%)
b1097	Add a 138 kV bus tie CB and two other 138 kV CB's at Round Lake		ComEd (100%)
b1157	Replace the 345 kV bus tie CB 2-3 at Lisle		ComEd (100%)
b1158	Add a 57.6 MVAR capacitor at Prospect Heights 138 kV Blue		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1256	Replace the State Line Station 7 138 kV breaker 'Bustie 742'		ComEd (100%)
b1257	Eliminate the J322 138 kV breaker 'L0906' and move customer to distribution system		ComEd (100%)
b1258	Revise the reclosing on the Elmhurst 138 kV bus B breaker '135 12008'		ComEd (100%)
b1259	Revise the reclosing on the Elmhurst 138 kV bus R breaker '135 13510'		ComEd (100%)
b1263	Move line 16703 termination from bus 4 to bus 3 at Electric Junction		ComEd (100%)
b1264	Replace 345 kV bus ties 1-2 and 1-9 at Plano to increase rating on line 16703		ComEd (100%)
b1265	Reconductor approximately 2 miles of Will County – Romeoville 138 kV portion of L1809 with ACSS conductor		ComEd (100%)
b1266	Normally close 345 kV BT 2-3 at TSS 103 Lisle, replace one 345 kV circuit breaker on BT 1-2 at TSS 103 Lisle		ComEd (100%)
b1266.1	Revise reclosing on Des Plaines 138 kV breaker '46 4610		ComEd (100%)
b1300	Reconductor the East Frankfort – Goodings Grove 345 kV 11601 line		ComEd (100%)
b1301	Upgrade both Garfield – Taylor 345 kV lines (17723 and 17724)		ComEd (100%)
b1511	Reconductor a section of L1811 & replace station conductor		ComEd (100%)
b1512	Reconductor 1.493 mi of L0902 with 477 ACSR cond.		ComEd (100%)
b1513	Reconductor a section of L0901		ComEd (100%)
b1514	Replace line trap on L1210 at Station 12 Dresden		ComEd (100%)
b1515	Reconductor a section of L0902		ComEd (100%)

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1516	Reconductor a section of L11102		ComEd (100%)
b1517	Replace circuit switcher 0303		ComEd (100%)
b1518	Install a 4th Lisle auto transformer		ComEd (100%)
b1519.1	New 345 kV transmission from Crawford to Fisk to Taylor		ComEd (100%)
b1519.2	Two 345/138 kV autotransformers at Fisk		ComEd (100%)
b1519.3	Two 138 kV 115.2 MVAR cap banks at Fisk		ComEd (100%)
b1579	Revise reclosing and upgrade relays at State Line 138 kV breaker '7 L0707'		ComEd (100%)
b1580	Revise reclosing and upgrade relays at State Line 138 kV breaker '7 L0761'		ComEd (100%)
b1581	Revise reclosing and upgrade relays at Cherry Valley 138 kV breaker '156 15622'		ComEd (100%)
b1582	Replace Lombard 138 kV breaker '120 12008'		ComEd (100%)
b1658	Replace Lombard 138kV breaker '120 10301' with 63kA breaker		ComEd (100%)
b1772	Reconductor approximately 16 miles from Nelson to Electric Junction 345 kV and replace associated terminal equipment. Same as n2092		ATSI (3.81%) / ComEd (94.60%) / Dayton (1.03%) / DL (0.56%)
b1773	Reconductor approximately 12.51 miles of East Frankfort - Crete 345 kV line 6607. Same as n2089		AEC (1.98%) / AEP (23.50%) / ATSI (37.29%) / Dayton (7.10%) / DL (6.68%) / DPL (2.81%) / JCPL (4.99%) / Neptune* (0.50%) / PECO (6.29%) / PSEG (8.52%) / RE (0.34%)

*Neptune Regional Transmission System, LLC

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1774	Reconductor approximately 11.75 miles of Crete - St. John 345 kV. Same as n2088		AEC (1.97%) / AEP (21.67%) / ATSI (36.70%) / BGE (2.96%) / Dayton (6.88%) / DL (6.63%) / DPL (2.81%) / JCPL (4.94%) / Neptune* (0.49%) / PECO (6.25%) / PSEG (8.37%) / RE (0.33%)
b1774.1	Reconductor approximately 1 mile of Crete - St. John 345 kV in NIPS/MISO. Same as n2088		AEC (1.97%) / AEP (21.67%) / ATSI (36.70%) / BGE (2.96%) / Dayton (6.88%) / DL (6.63%) / DPL (2.81%) / JCPL (4.94%) / Neptune* (0.49%) / PECO (6.25%) / PSEG (8.37%) / RE (0.33%)
b1775	Reconductor 10.7 miles of Marengo - Pleasant Valley 138 kV and replace associated terminal and protective equipment. Same as n2090		ComEd (100%)
b1776	Reconductor 0.157 miles of McGirr Road - H440; RT 138 kV line of 477 ACSR		ComEd (100%)
b1777	Reconductor approximately 11.5 miles and replace associated terminal equipment of Marengo; TB - Woodstock; B 138 kV line. Same as n2093		ComEd (100%)
b1778	Reconductor 7.181 miles of 477 ACSR and upgrade station conductor at TSS 186 Steward1		ComEd (100%)
b1779	Reconductor 5.242 miles of Kickapoo Creek - Marseilles Tap 138 kV line of 477 ACSR		ComEd (100%)
b1841	Install the 3rd 345/138 kV transformer at TSS 86 Davis Creek		ComEd (100%)
b1842	Reconductor 0.6 miles of 138 kV line 5104 from TSS 115 Bedford Park to Clearing Tap		ComEd (100%)

*Neptune Regional Transmission System, LLC

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1843	Replace 1200A line trap on 138 kV line 7611 at TSS 76 Blue Island 138 kV		ComEd (100%)
b1844	Reconductor 2.1 miles of 138 kV line 10301 from TSS 102 Lisle to York Tap with ACSS		ComEd (100%)
b1845	Reconductor 2.4 miles of 138 kV line 10302 from TSS 103 Lisle to York Tap with ACSS		ComEd (100%)
b1846	Upgrade 900 kcmil ACSR station conductor on 138 kV line 1803 at STA 18 Will County		ComEd (100%)
b1847	Add 230 MVAR of capacitors at TSS 141 Pleasant Valley		ComEd (100%)
b1848	Upgrade relays and wavetraps on 138 kV line 4605 at TSS 46 Des Plaines		ComEd (100%)
b1849	Install 138 kV bus and 7 CBs at TSS 109 Aptakisic 138 kV		ComEd (100%)
b1850	Upgrade 1113 ACSR station conductor on 138 kV line 7910 at TSS 144 Wayne 138 kV		ComEd (100%)
b1851	Reconductor station conductor on 138 kV line 7915 at TSS 144 Wayne 138 kV		ComEd (100%)
b1852.1	Upgrade five 345 kV circuit breakers (L1223, L11124, L14321, BT2-3 and BT3-4) at Electric Junction		ComEd (100%)
b1852.2	Modify reclosing on 138 kV line (L11103) at TSS 111 Electric Junction		ComEd (100%)
b1885	Reconductor/rebuild the 138 kV line 16914 for 1.3 miles from Stewart to the H440 tap		ComEd (100%)
b1886	Install a 345 kV normally closed bus tie CB at Kendall County		ComEd (100%)
b1903	Replace 7 138 kV breakers at Natoma 138 kV substation		ComEd (100%)

*Neptune Regional Transmission System, LLC

Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2119	Reconductor 25 miles of 138 kV line 10714 from Dixon to McGirr Road and replace line traps on each end		ComEd (100%)
b2127	Install two 300 MVAR SVC's on the 138 kV red and blue buses at Prospect Heights substation		ComEd (100%)
b2128	Reconductor 8.9 miles of 138 kV line 11323 from Waterman to Glidden, replace two spans of conductor between Haumesser Road, and Waterman also on line 11323		ComEd (100%)
b2141	Construct a new Byron to Wayne 345 kV circuit		AEP (4.13%) / APS (2.23%) / ATSI (0.08%) / ComEd (92.99%) / Dayton (0.41%) / Dominion (0.16%)

*Neptune Regional Transmission System, LLC

SCHEDULE 12 – APPENDIX

- (17) **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)**

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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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)
b0490.2	Replace Amos 138 kV breaker 'B'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.3	Replace Amos 138 kV breaker 'B1'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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)
b0490.4	Replace Amos 138 kV breaker 'C'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.5	Replace Amos 138 kV breaker 'C1'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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)
b0490.6	Replace Amos 138 kV breaker 'D'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.7	Replace Amos 138 kV breaker 'D2'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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)
b0490.8	Replace Amos 138 kV breaker 'E'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b0490.9	Replace Amos 138 kV breaker 'E2'	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

* Neptune Regional Transmission System, LLC

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)
b0504	Add two advanced technology circuit breakers at Hanging Rock 765 kV to improve operational performance		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

* Neptune Regional Transmission System, LLC

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)
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 138/69-34.5kV Station to interconnect the existing 34.5kV 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 345kV line near the intersection with Ross - Highland 69kV	AEP (89.97%) / Dayton (10.03%)
b1032.2	Construct two 138kV outlets to Delano 138kV station and to Camp Sherman station	AEP (89.97%) / Dayton (10.03%)
b1032.3	Convert Ross - Circleville 69kV to 138kV	AEP (89.97%) / Dayton (10.03%)
b1032.4	Install 138/69kV transformer at new station and connect in the Ross - Highland 69kV 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%)

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)
b1034.1	Establish new South Canton - West Canton 138kV line (replacing Torrey - West Canton) and Wagenhals - Wayview 138kV	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 138kV 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 345/138kV 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 138kV 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 138kV 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 138kV 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 138kV 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%)

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)
b1034.8	Install additional 138kV 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 345kV breaker string in the West Millersport Station. Construct a new West Millersport – Gahanna 138kV circuit. Miscellaneous improvements to 138kV 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 138kV, Centerville–Ivy Hill 138kV, Ivy Hill–Reusens 138kV, Bonsack–Reusens 138kV 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%)

* Neptune Regional Transmission System, LLC

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)
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 138kV	AEP (100%)
b1043	Perform sag studies to raise the emergency rating of Turner - Ruth 138kV	AEP (100%)
b1044	Perform sag studies to raise the emergency rating of Kenova – South Point 138kV	AEP (100%)
b1045	Perform sag studies of Tri State - Darrah 138 kV	AEP (100%)
b1046	Perform sag study of Scottsville – Bremono 138kV to raise the emergency rating	AEP (100%)
b1047	Perform sag study of Otter Switch - Altavista 138kV to raise the emergency rating	AEP (100%)

* Neptune Regional Transmission System, LLC

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)
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 138kV	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%)

* Neptune Regional Transmission System, LLC

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)
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%)

* Neptune Regional Transmission System, LLC

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)
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%)

* Neptune Regional Transmission System, LLC

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)
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%)

* Neptune Regional Transmission System, LLC

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)
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%)

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)
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%)

* Neptune Regional Transmission System, LLC

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)
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%)

* Neptune Regional Transmission System, LLC

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)
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%)

* Neptune Regional Transmission System, LLC

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)
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%)

* Neptune Regional Transmission System, LLC

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)
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 (75.17%) / APS (1.25%) / BGE (1.81%) / ComEd (5.92%) / Dayton (0.86%) / DL (1.23%) / DPL (0.95%) / Dominion (3.90%) / JCPL (1.58%) / NEPTUNE (0.15%) / PECO (2.08%) / PEPCO (1.66%) / PSEG (2.63%) / 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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*Neptune Regional Transmission System, LLC

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)
b1465.3	Transpose the Rockport – Sullivan 765 kV line and the Rockport – Jefferson 765 kV line	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1465.4	Make switching improvements at Sullivan and Jefferson 765 kV stations	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

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)
b1495	Add an additional 765/345 kV transformer at Baker Station	AEC (0.41%) / AEP (87.29%) / BGE (1.03%) / ComEd (3.39%) / Dayton (1.23%) / DL (1.46%) / DPL (0.54%) / JCPL (0.90%) / NEPTUNE (0.09%) / PECO (1.18%) / PEPCO (0.94%) / 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%)

*Neptune Regional Transmission System, LLC

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)
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 (93.67%) / ATSI (2.99%) / ComEd (2.07%) / PENELEC (0.31%) / 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%)

*Neptune Regional Transmission System, LLC

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)
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		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1659.14	Build approximately 14 miles of 765 kV line from existing Dumont - Marysville line		AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

*Neptune Regional Transmission System, LLC

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)
b1660	Install a 765/500 kV transformer at Cloverdale	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
b1661	Install a 765 kV circuit breaker at Wyoming station	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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 - Jauy 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%)

*Neptune Regional Transmission System, LLC

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)
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 138kV breakers and two 138kV circuit switchers at South Princeton Station and one 138kV breaker and one 138kV circuit switcher at Switchback Station	AEP (100%)
b1781	Install three 138 kV breakers and a 138kV circuit switcher at Trail Fork Station in Pineville, WV	AEP (100%)

*Neptune Regional Transmission System, LLC

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)
b1782	Install a 46kV 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%)

*Neptune Regional Transmission System, LLC

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)
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 272MVA (Cave Spring-Hancock), 205MVA (Cave Spring-Sunscape), 245MVA (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 (175MVA)	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 251/286MVA	AEP (100%)

*Neptune Regional Transmission System, LLC

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)
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 284MVA	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 251/335MVA	AEP (100%)
b1866	Perform a sag study on the Clinch River-Lock Hart-Dorton 138kV line, increase the Relay Compliance Trip Limit at Clinch River on the C.R.-Dorton 138kV line to 310 and upgrade the risers with 1590ACSR	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 179MVA	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 219MVA	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)
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 250MVA	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%)

*Neptune Regional Transmission System, LLC

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)
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	AEP (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%)

*Neptune Regional Transmission System, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

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)
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 (69.66%) / ATSI (23.19%) / PENELEC (2.43%) / PSEG (4.54%) / 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 138kV ckt	AEP (100%)
b1961	Sag study on the Southeast Canton – Sunnyside 138kV line	AEP (100%)

*Neptune Regional Transmission System, LLC

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)
b1962	Add four 765 kV breakers at Kammer	AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
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 345kV circuit	APS (33.58%) / ATSI (32.28%) / DL (18.68%) / Dominion (6.02%) / JCPL (1.68%) / Neptune* (0.18%) / PENELEC (4.59%) / PSEG (2.88%) / 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

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)
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 (37.10%) / AEP (34.41%) / DL (10.43%) / Dominion (6.20%) / APS (3.95%) / PENELEC (3.10%) / JCPL (1.39%) / Dayton (1.20%) / Neptune* (0.14%) / 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

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)
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%)

*Neptune Regional Transmission System, LLC

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)
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%)

*Neptune Regional Transmission System, LLC

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)
b2069 Replace George Washington 138 kV breaker 'A' with 63kA rated breaker		AEP (100%)
b2070 Replace Harrison 138 kV breaker '6C' with 63kA rated breaker		AEP (100%)
b2071 Replace Lincoln 138 kV breaker 'L' with 63kA rated breaker		AEP (100%)
b2072 Replace Natrum 138 kV breaker 'T' with 63kA rated breaker		AEP (100%)
b2073 Replace Darrah 138 kV breaker 'B' with 63kA rated breaker		AEP (100%)
b2074 Replace Wyoming 138 kV breaker 'G' with 80kA rated breaker		AEP (100%)
b2075 Replace Wyoming 138 kV breaker 'G1' with 80kA rated breaker		AEP (100%)
b2076 Replace Wyoming 138 kV breaker 'G2' with 80kA rated breaker		AEP (100%)
b2077 Replace Wyoming 138 kV breaker 'H' with 80kA rated breaker		AEP (100%)
b2078 Replace Wyoming 138 kV breaker 'H1' with 80kA 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 80kA rated breaker		AEP (100%)

*Neptune Regional Transmission System, LLC

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

*Neptune Regional Transmission System, LLC

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)
b2093	Replace Turner 138 kV breaker 'W' with 63kA 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%)

*Neptune Regional Transmission System, LLC

SCHEDULE 12 – APPENDIX

(23) American Transmission Systems, Inc.

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1190	Reconductor Lemonyne – Maclean 138 kV circuit with 954 ACSS conductor		ATSI (100%)
b1191	Replace the Shenango – Crossland 138 kV circuit #2 meter with a higher rated meter		ATSI (100%)
b1192	Reconductor the Bayshore –Chevy 138 kV circuit with 636 ACSS conductor		ATSI (100%)
b1193	Replace the Hanna –East Akron 138 kV 800 Amp wavetrap with a 1200 Amp wavetrap		ATSI (100%)
b1194	Replace substation conductor on GM powertrain 138 kV line exit (replace 636 ACSR with 1590 AAC or ACSR)		ATSI (100%)
b1229	Replace the circuit terminal and sections of substation bus conductor at Shenango 138 kV substation		ATSI (100%)
b1281	Build new Hayes 345/138 kV substation with new 138 kV lines to: Greenfield #1, Greenfield #2, and Avery		ATSI (100%)
b1281.1	Replace Greenfield 138 kV breaker '501-B-1'		ATSI (100%)
b1281.2	Replace Greenfield 138 kV breaker '501-B-21'		ATSI (100%)
b1281.3	Replace Greenfield 138 kV breaker '501-B-227'		ATSI (100%)
b1281.4	Replace Greenfield 138 kV breaker '501-B-23'		ATSI (100%)

b1281.5	Replace Greenfield 138 kV breaker '501-B-242'		ATSI (100%)
---------	--	--	-------------

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1281.6	Replace Greenfield 138 kV breaker '501-B-36'		ATSI (100%)
b1281.7	Replace Greenfield 138 kV breaker '501-B-38'		ATSI (100%)
b1281.8	Replace Greenfield 138 kV breaker '501-B-40'		ATSI (100%)
b1282	Build Beaver - Hayes - Davis - Besse #2 345 kV line		ATSI (100%)
b1283	Loop the Chamberlin - Mansfield 345 kV line into the Hanna 345 kV substation		ATSI (100%)
b1284	Install 50.0 MVAR capacitor bank at the Lime City 138 kV Substation		ATSI (100%)
b1285	Replace Barberton Star 138 kV #1 wavetrapp, CFZ relay, and line exit conductor at Barberton		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1286	Reconductor Hanna - W. Ravenna 138 kV #1	ATSI (100%)
b1287	Reconductor Hanna - W. Ravenna 138 kV #2	ATSI (100%)
b1288	Replace Masury - Crossland 138 kV terminal equipment at Masury	ATSI (100%)
b1289	Reconductor Evergreen - Niles 138 kV (3 miles) and replace terminal equipment at Evergreen on Evergreen - Niles 138 kV	ATSI (100%)
b1290	Build new Niles - Salt Springs #2 138 kV with 795 ACSR	ATSI (100%)
b1291	Replace substation equipment at Eastlake on the Q-12 138 kV line ext	ATSI (100%)
b1292	Replace substation equipment at Eastlake on the Q-13 138 kV line exit	ATSI (100%)
b1293	Replace substation equipment at the Tangy sub on the E. Springfield - Tangy line	ATSI (100%)
b1294	Modify the Brookside - Longview #2 138 kV CT ratio and correct the design temperature	ATSI (100%)
b1295.1	Modify the Brookside - Longview #1 138 kV CT ratio + correct the design temperature (Longview - Madison)	ATSI (100%)
b1295.2	Modify the Brookside - Longview #1 138 kV CT ratio + correct the design temperature (Brookside - Madison)	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1296.1	Reconductor BG line exit conductor at Lemoyne Sub	ATSI (100%)
b1296.2	Change the CT ratio at Lemoyne B13213 towards Brim Tap to increase line loadability	ATSI (100%)
b1297	Install a new Fulton 345/138 kV substation	ATSI (100%)
b1299	Add SCADA control and motor operators to switches 13153 and 13154 near Silica	ATSI (100%)
b1341	Install a 25 MVAR cap bank at Airpark 138 kV substation	ATSI (100%)
b1342	Install a 50 MVAR cap bank at Sharon 138 kV substation	ATSI (100%)
b1547	Reconductor the Lakeview Greenfield 138 kV line Replace 4/0 Cu with 336.4 ACSR, maintain 6-wire arrangement	ATSI (100%)
b1548	Reconductor the Ottawa Lakeview 138 kV line Replace 4/0 Cu with 336.4 ACSR, maintain 6-wire arrangement	ATSI (100%)
b1585	Galion-GM Mansfield-Longview 138 kV line: Bypass GM Mansfield substation	ATSI (100%)
b1586	Change the relay setting limit	ATSI (100%)
b1587	Build a new Mansfield 69 kV Switching Station networking Leaside, Longview, and Galion Subs @ existing Alta 69 kV Sub Site	APS (0.56%) / ATSI (97.56%) / PENELEC (1.13%) / DL (0.75%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1611	Replace Avon Lake 138 kV breaker '10-B-9'		ATSI (100%)
b1612	Replace Pleasant Valley 138 kV breaker '194-B-7'		ATSI (100%)
b1613	Replace Brady 138 kV breaker '1003-B-6'		ATSI (100%)
b1614	Replace Brady 138 kV breaker '36-B-56'		ATSI (100%)
b1615	Replace East Akron 138 kV breaker '36-B-40'		ATSI (100%)
b1616	Replace East Akron 138 kV breaker '36-B-45'		ATSI (100%)
b1617	Replace Greenfield 138 kV breaker '501-B-68'		ATSI (100%)
b1618	Replace Masury 138 kV breaker '103-B-118'		ATSI (100%)
b1619	Replace Roberts 138 kV breaker '601-B-26'		ATSI (100%)
b1620	Replace Roberts 138 kV breaker '601-B-113'		ATSI (100%)
b1621	Replace Roberts 138 kV breaker '601-B-13'		ATSI (100%)
b1622	Replace Sammis 138 kV breaker '780-B-44'		ATSI (100%)
b1623	Replace Sammis 138 kV breaker '780-B-45'		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1624	Replace Sammis 138 kV breaker '780-B-9'	ATSI (100%)
b1625	Replace Sammis 138 kV breaker '780-B-75'	ATSI (100%)
b1626	Revise the reclosing of Eastlake 138 kV breaker '46-B-36'	ATSI (100%)
b1627	Revise the reclosing of Eastlake 138 kV breaker '46-B-35'	ATSI (100%)
b1628	Revise the reclosing of Eastlake 138 kV breaker '46-B-31'	ATSI (100%)
b1629	Revise the reclosing of Eastlake 138 kV breaker '46-B-34'	ATSI (100%)
b1630	Revise the reclosing of Eastlake 138 kV breaker '46-B-21'	ATSI (100%)
b1631	Revise the reclosing of Eastlake 138 kV breaker '46-B-27'	ATSI (100%)
b1632	Revise the reclosing of Eastlake 138 kV breaker '46-B-18'	ATSI (100%)
b1633	Revise the reclosing of Eastlake 138 kV breaker '46-B-24'	ATSI (100%)
b1634	Revise the reclosing of Eastlake 138 kV breaker '46-B-33'	ATSI (100%)
b1635	Revise the reclosing of Eastlake 138 kV breaker '46-B-32'	ATSI (100%)
b1636	Revise the reclosing of Fowles 138 kV breaker '64-B-9'	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1637	Revise reclosing of Pleasant Valley 138 kV breaker '194-B-5'	ATSI (100%)
b1638	Revise the reclosing of Bluebell 138 kV breaker '301-B-9'	ATSI (100%)
b1639	Revise the reclosing of Bluebell 138 kV breaker '301-B-8'	ATSI (100%)
b1640	Revise the reclosing of East Akron 138 kV breaker '36-B-22'	ATSI (100%)
b1691	Install a new Bluebell - S. Akron 138 kV circuit	ATSI (100%)
b1691.1	Un-six wire sections of E. Akron - Knox 138 kV	ATSI (100%)
b1691.2	Un-six wire sections of Bluebell - C. Central 138 kV	ATSI (100%)
b1691.3	Reconductor approximately 5.5 miles of ACSR with ACSS conductor from Bluebell to start of 6-wire sections	ATSI (100%)
b1691.4	Create Bluebell - South Akron 138 kV line with new connections	ATSI (100%)
b1691.5	Replace 250 Cu and 336.4 ACSR with 954 ACSR SSCIR at Bluebell	ATSI (100%)
b1691.6	Replace Relays at Bluebell and add line breaker at tap to Alliance Castings	ATSI (100%)
b1692	Loop in E. Akron - Sammis 138 kV line and expand Knox to 6 breaker ring bus	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1693	Replace the Star 345/138 kV #3 with a larger unit	ATSI (100%)
b1732	Create Brookside - Reedsburg - Longview 138 kV line and open Burger - Cloverdale #2 and #3 138 kV lines	ATSI (100%)
b1771	Perform reconfiguration at Richland 138kV that will permit the removal of the existing Richland SPS	ATSI (100%)
b1814	Replace Pleasant Valley 138 kV breaker 194-B-3	ATSI (100%)
b1815	Replace West Ravena 138 kV breaker 59-B-15	ATSI (100%)
b1820	Replace the Ironville 138 kV breaker '33-B-13208'	ATSI (100%)
b1913	Convert Eastlake units 1, 2, 3, 4 and 5 to synchronous condensers	ATSI (100%)
b1914	Convert Lakeshore 18 to a synchronous condenser	ATSI (100%)
b1915	Install a 50 MVAR capacitor bank at the Maclean 138 kV station	ATSI (100%)
b1916	Install a 345/138 kV transformer at the Inland Q-11 station	ATSI (100%)
b1917	Install a 138 kV circuit breaker at the Inland Q-11 station	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1918	Upgrade terminal equipment on the Avon – Crestwood 138 kV line and reconductor 2 spans		ATSI (100%)
b1919	Re-conductor the Galion – Leaside 138 kV line with 336 ACSS		ATSI (100%)
b1920	Re-conductor the Galion – GM Mansfield – Ontario - Cairns 138 kV line with 477 ACSS		ATSI (94.47%) / DL (2.90%) / PENELEC (2.63%)
b1921	Install a 2nd 345/138 kV transformer at the Allen Junction station		ATSI (100%)
b1921.1	Replace Allen Junction 345 kV breaker 'MECS/TR1:3' with 40kA breaker		ATSI (100%)
b1921.2	Replace Allen Junction 345 kV breaker 'MIDWAY/MECS' with 40kA breaker		ATSI (100%)
b1921.3	Replace Allen Junction 345 kV breaker 'MIDWAY/TR1' with 40kA breaker		ATSI (100%)
b1922	Install a 2nd 345/138 kV transformer at the Bayshore station		ATSI (100%)
b1923	Create a new Northfield Area 345 kV switching station by looping in the Eastlake – Juniper 345 kV line and the Perry - Inland 345 kV line		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1924	Build a new Mansfield - Northfield Area 345 kV line	ATSI (100%)
b1925	Create a new Harmon 345/138/69 kV substation by looping in the Star – South Canton 345 kV line	ATSI (100%)
b1925.1	Replace Bluebell 138 kV breaker '301-B-15' with 40kA breaker	ATSI (100%)
b1926	Build a new Harmon – Brookside + Harmon - Longview 138 kV line	ATSI (100%)
b1926.1	Replace Longview 138 kV breaker '651-B-219' with 40kA breaker	ATSI (100%)
b1926.2	Replace Longview 138 kV breaker '651-B-32' with 40kA breaker	ATSI (100%)
b1927	Create a new Five Points Area 345/138 kV substation by looping in the Lemoyne – Midway 345 kV line	ATSI (100%)
b1928	Install a 50 MVAR capacitor at Hayes 138 kV	ATSI (100%)
b1929	Install a 138/69 kV transformer at the Avery station	ATSI (100%)
b1930	Increase design temperature limitation on the Avery – Hayes 138 kV line by raising the existing structures	ATSI (100%)
b1931	Reconductor Cloverdale - Harmon #2 and #3 138 kV lines with 795 ACSS or greater conductor 6 miles total + Terminal upgrades	ATSI (100%)
b1932	Change the transformer tap settings on the Maclean 138/69 kV transformers	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1933	Replace 336.4 ACSR SCCIR at Richland to upgrade the Richland – Naomi 138 kV line	ATSI (100%)
b1934	Build a new 345/138 kV Substation at Niles	ATSI (100%)
b1934.1	Loop 1.2 miles of 345 kV into substation of the Highland – Shenango 345 kV line	ATSI (100%)
b1934.2	New 345/138 kV transformer at Niles	ATSI (100%)
b1934.3	Replace Niles 138 kV breaker '170-B-11' with 63kA breaker	ATSI (100%)
b1934.4	Replace Niles 138 kV breaker '170-B-19' with 63kA breaker	ATSI (100%)
b1934.5	Replace Niles 138 kV breaker '170-B-20' with 63kA breaker	ATSI (100%)
b1934.6	Replace Niles 138 kV breaker '170-B-9' with 63kA breaker	ATSI (100%)
b1934.7	Replace Niles 138 kV breaker '170-B-97' with 63kA breaker	ATSI (100%)
b1934.8	Replace Niles 138 kV breaker '170-B-16' with 63kA breaker	ATSI (100%)
b1934.9	Replace Niles 138 kV breaker '170-B-18' with 63kA breaker	ATSI (100%)
b1934.10	Replace Niles 138 kV breaker '170-B-10' with 63kA breaker	ATSI (100%)
b1934.11	Replace Salt Springs 138 kV breaker '105-B-2' with 63kA breaker	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b1934.12	Replace Salt Springs 138 kV breaker 'Bay' with 63kA breaker		ATSI (100%)
b1934.13	Replace Salt Springs 138 kV breaker '105-B-40' with 63kA breaker		ATSI (100%)
b1934.14	Replace Salt Springs 138 kV breaker '105-B-42' with 63kA breaker		ATSI (100%)
b1934.15	Replace Salt Springs 138 kV breaker '105-B-45' with 63kA breaker		ATSI (100%)
b1934.16	Replace Salt Springs 138 kV breaker '105-B-56' with 63kA breaker		ATSI (100%)
b1934.17	Replace Salt Springs 138 kV breaker '105-B-58' with 63kA breaker		ATSI (100%)
b1934.18	Replace Salt Springs 138 kV breaker '105-B-170' with 63kA breaker		ATSI (100%)
b1934.19	Replace Salt Springs 138 kV breaker '105-B-192' with 63kA breaker		ATSI (100%)
b1934.20	Replace Wickliffe 138 kV breaker '144-B-103' with 40kA breaker		ATSI (100%)
b1934.21	Revise the reclosing of Evergreen 138 kV breaker '802-B-93'		ATSI (100%)
b1934.22	Revise the reclosing of Evergreen 138 kV breaker '2801-B-16'		ATSI (100%)
b1934.23	Revise the reclosing of Evergreen 138 kV breaker '2801-B-20'		ATSI (100%)
b1934.24	Revise the reclosing of Evergreen 138 kV breaker '2801-B-21'		ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1934.25	Revise the reclosing of Evergreen 138 kV breaker '2801-B-65'	ATSI (100%)
b1934.26	Revise the reclosing of Evergreen 138 kV breaker '2801-B-6'	ATSI (100%)
b1935	ATSI-AEP 138 kV Substation (Brubaker) on near territory border + 138 kV from new substation to Longview approx. 8 miles	ATSI (94.90%) / DL (2.97) / PENELEC (2.13%)
b1935.1	Revise the reclosing of Brookside 138 kV breaker '701-B-128'	ATSI (100%)
b1935.2	Revise the reclosing of Brookside 138 kV breaker '701-B-135'	ATSI (100%)
b1935.3	Revise the reclosing of Brookside 138 kV breaker '701-B-206'	ATSI (100%)
b1935.4	Revise the reclosing of Brookside 138 kV breaker '701-B-28'	ATSI (100%)
b1935.5	Revise the reclosing of Brookside 138 kV breaker '701-B-3'	ATSI (100%)
b1935.6	Revise the reclosing of Brookside 138 kV breaker '701-B-30'	ATSI (100%)
b1935.7	Revise the reclosing of Brookside 138 kV breaker '701-B-31'	ATSI (100%)
b1935.8	Revise the reclosing of Brookside 138 kV breaker '701-B-36'	ATSI (100%)
b1935.9	Revise the reclosing of Brookside 138 kV breaker '701-B-40'	ATSI (100%)
b1935.10	Revise the reclosing of Brookside 138 kV breaker '701-B-7'	ATSI (100%)

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1936	Build new Allen Jct - Midway - Lemonye 345 kV line (48 miles of open tower position)	ATSI (100%)
b1937	Build a new Leroy Center 345/138 kV substation by looping in the Perry – Harding 345 kV line	ATSI (100%)
b1938	Place a portion of the 138 kV Leroy Center 345/138 kV project into service by summer 2015	ATSI (100%)
b1939	Reconductor the Barberton – West Akron 138 kV line with 477 ACSS or greater (7.3 miles) + Terminal upgrades at Barberton	ATSI (100%)
b1959	Build a new West Fremont-Groton-Hayes 138kV line	APS (4.24%) / ATSI (87.76%) / DL (4.27%) / PENELEC (3.73%)
b1976	Reconductor ATSI portion of South Canton – Harmon 345 kV line	ATSI (89.00%) / JCPL (1.24%) / Neptune* (0.13%) / PENELEC (6.56%) / PSEG (2.95%) / RE (0.12%)
b1977	Build new Toronto 345/138 kV substation by looping in the Sammis – Wylie Ridge 345 kV line and tie in four 138 kV lines	APS (7.03%) / ATSI (88.08%) / DL (0.81%) / PENELEC (4.08%)
b1977.1	Build a new Toronto-Harmon 345kV line	APS (7.03%) / ATSI (88.08%) / DL (0.81%) / PENELEC (4.08%)
b1978	Reconductor Inland – Clinic Health Q-11 138 kV line	ATSI (100%)

* Neptune Regional Transmission System, LLC

American Transmission Systems, Inc. (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b1981	Replace relay on the Highland – G689 138 kV line	ATSI (100%)
b1982	Reconductor the Hoytdale – Newcastle 138 kV lines #1 and #2 with 795 ACSS	ATSI (100%)
b1983	Add 150 MVAR SVC and a 100 MVAR capacitor at New Castle	ATSI (100%)
b1984	Install a 50 MVAR capacitor at the Boardman 138 kV bus	ATSI (100%)
b2042	Add (6) 138 kV breakers + relaying at Leroy Center	ATSI (100%)
b2059	Replace Bluebell 138 kV breaker '301-B-11' with 40kA breaker	ATSI (100%)
b2060	Replace Bluebell 138 kV breaker '301-B-9' with 40kA breaker	ATSI (100%)
b2061	Replace Bluebell 138 kV breaker '301-B-187' with 40kA breaker	ATSI (100%)
b2062	Replace Bluebell 138 kV breaker '301-B-206' with 40kA breaker	ATSI (100%)
b2063	Replace Bluebell 138 kV breaker '301-B-10' with 40kA breaker	ATSI (100%)
b2064	Replace Knox 138 kV breaker '307-B-10' with 40kA breaker	ATSI (100%)

* 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 230/115kV transformer at Raphael Rd and construct approximately 3 miles of 115kV line from Raphael Rd. to Joppatowne. Construct a 115kV three breaker ring at Joppatowne	BGE (100%)
b2308	Build approximately 3 miles of 115kV 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 115kV 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 115kV 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%)

Baltimore Gas and Electric Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: AEC (0.05%) / APS (11.40%) / BGE (22.83%) / Dayton (2.23%) / DEOK (4.28%) / DPL (0.20%) / EKPC (1.98%) / JCPL (11.06%) / NEPTUNE* (1.17%) / POSEIDON**** (0.64%) / PENELEC (0.06%) / PEPCO (19.38%) / PSEG (23.77%) / RECO (0.95%)</p>

*Neptune Regional Transmission System, LLC

****Poseidon Transmission 1, LLC

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 63kA breaker		PECO (100%)
b2222.2	Increase Rating of Eddystone #415 138kV Breaker		PECO (100%)
b2236	50 MVAR reactor at Buckingham 230 kV		PECO (100%)
b2527	Replace Whitpain 230 kV breaker '155' with 80kA breaker		PECO (100%)
b2528	Replace Whitpain 230 kV breaker '525' with 80kA 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 63kA breaker	PECO (100%)
b2694	Increase ratings of Peach Bottom 500/230 kV transformer to 1479 MVA normal/1839 MVA emergency	AEC (4.04%) / AEP (5.87%) / APS (4.34%) / ATSI (6.25%) / BGE (1.66%) / ComEd (0.73%) / Dayton (1.08%) / DEOK (2.01%) / DL (2.29%) / Dominion (0.35%) / DPL (14.53%) / EKPC (0.40%) / JCPL (6.95%) / MetEd (3.34%) / Neptune (2.18%) / PECO (16.69%) / PENELEC (4.01%) / PPL (8.46%) / PSEG (14.37%) / RECO (0.45%)
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%)

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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: AEC (0.05%) / APS (11.40%) / BGE (22.83%) / Dayton (2.23%) / DEOK (4.28%) / DPL (0.20%) / EKPC (1.98%) / JCPL (11.06%) / NEPTUNE* (1.17%) / POSEIDON**** (0.64%) / PENELEC (0.06%) / PEPCO (19.38%) / PSEG (23.77%) / RECO (0.95%)</p>

*Neptune Regional Transmission System, LLC

****Poseidon Transmission 1, 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 63kA breaker	PECO (100%)
b2852	Replace the Chichester 230 kV "195" with 63kA breaker	PECO (100%)
b2854	Replace the North Philadelphia 230 kV "CS 775" with 63kA breaker	PECO (100%)
b2855	Replace the North Philadelphia 230 kV "CS 885" with 63kA breaker	PECO (100%)
b2856	Replace the Parrish 230 kV "CS 715" with 63kA breaker	PECO (100%)
b2857	Replace the Parrish 230 kV "CS 825" with 63kA breaker	PECO (100%)
b2858	Replace the Parrish 230 kV "CS 935" with 63kA breaker	PECO (100%)
b2859	Replace the Plymouth Meeting 230 kV "215" with 63kA breaker	PECO (100%)
b2860	Replace the Plymouth Meeting 230 kV "235" with 63kA breaker	PECO (100%)
b2861	Replace the Plymouth Meeting 230 kV "325" with 63kA breaker	PECO (100%)
b2862	Replace the Grays Ferry 230 kV "705" with 63kA 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 63kA breaker		PECO (100%)
b2864	Replace the Grays Ferry 230 kV "775" with 63kA breaker		PECO (100%)

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 63kA breaker	PSEG (100%)
b2421	Install all 69kV lines to interconnect Plainfield, Greenbrook, and Bridgewater stations and establish the 69kV network	PSEG (100%)
b2421.1	Install two 18MVAR 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 69kV 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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (100%)</p>
b2436.33	Construct a new Bayway – Bayonne 345 kV circuit and any associated substation upgrades	PSEG (100%)
b2436.34	Construct a new North Ave – Bayonne 345 kV circuit and any associated substation upgrades	PSEG (100%)

*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		<i>PSEG (100%)</i>
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		<i>PSEG (96.13%) / RE (3.87%)</i>
b2436.70	Construct a new Airport - Bayway 345 kV circuit and any associated substation upgrades		<i>PSEG (100%)</i>
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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
			DFAX Allocation: PSEG (96.13%) / RE (3.87%)

*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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: PSEG (96.13%) / RE (3.87%)</p>
b2436.91	Relocate the Hudson 2 generation to inject into the 345 kV at Marion and any associated upgrades	PSEG (100%)

*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 (96.13%) / RE (3.87%)
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 (96.13%) / RE (3.87%)
b2437.21	New Bayway 345/138 kV transformer #2 and any associated substation upgrades	PSEG (96.13%) / RE (3.87%)
b2437.30	New Linden 345/230 kV transformer and any associated substation upgrades	PSEG (96.13%) / RE (3.87%)
b2437.33	New Bayonne 345/69 kV transformer and any associated substation upgrades	PSEG (100%)
b2438	Install two reactors at Tosco 230 kV	PSEG (100.00%)
b2439	Replace the Tosco 138kV breaker 'CB1/2 (CBT)' with 63kA	PSEG (100.00%)
b2474	Rebuild Athenia 138 kV to 80kA	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	Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)
b2633.4	Add a new 500 kV bay at Hope Creek (Expansion of Hope Creek substation)	Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)

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 (0.01%) / DPL (99.98%) / JCPL (0.01%)
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	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: AEC (0.01%) / DPL (99.98%) / JCPL (0.01%)</p>

*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 (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPSCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)
		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 80kA breaker	PSEG (100%)
b2713	Replace the Bergen 138 kV '90P' breaker with 80kA 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	PSEG (100%)

Public Service Electric and Gas Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement		Responsible Customer(s)
b2836	Convert the N-1340 and T-1372/D-1330 (Brunswick – Trenton) 138 kV circuits to 230 kV circuits		PSEG (100%)
b2837	Convert the F-1358/Z1326 and K1363/Y-1325 (Trenton – Burlington) 138 kV circuits to 230 kV circuits		PSEG (100%)
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%)

SCHEDULE 12 – APPENDIX A

(15) Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2141.1	Remove Byron SPS upon completion of Byron - Wayne 345 kV	ComEd (100%)
b2365	Replace 138 kV bus tie 1-2 circuit breaker, station conductor, relays, and a wave trap at TSS 55 Hegewisch substation	ComEd (100%)
b2366	Reconductor 1.4 miles of 138 kV line 0112, Kickapoo Creek - LaSalle County 138kV line	ComEd (100%)
b2415	Install a 138 kV Red Blue bus tie with underground cable and a line 15913 CB at Highland Park	ComEd (100%)
b2416	Reconductor 0.125 miles of the East Frankfort - Mokena 138 kV line L6604	ComEd (100%)
b2417	Replace Ridgeland 138 kV bus tie CB and underground cable at TSS 192 Ridgeland 138 kV substation	ComEd (100%)
b2418	Reconductor 7.5 miles of Waukegan - Gurnee 138 kV line L1607	ComEd (100%)
b2419	Reconductor 0.33 miles of 138 kV underground cable on the Sawyer - Crawford 138 kV Blue line (L1324)	ComEd (100%)
b2465	Replace the Skokie 138 kV breaker '88 L8809' with a 63 kA breaker	ComEd (100%)
b2466	Replace the Skokie 138 kV breaker '88 L8810' with 63kA breaker	ComEd (100%)
b2467	Replace the Skokie 138 kV breaker '88 L11416' with 63 kA breaker	ComEd (100%)

**Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
(cont.)**

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2468	Replace the Skokie 138 kV breaker '88 L8803' with 63kA breaker		ComEd (100%)
b2469	Replace the Des Plaines 138 kV breaker '46 11702' with 63 kA breaker		ComEd (100%)
b2561	Install a new 345 kV circuit breaker 5-7 at Elwood substation		ComEd (100%)
b2562	Remove 2.0 miles of wood poles on 138 kV line 17105, erect new steel structures, and install new 1113 kcmil ACSR conductor from Roscoe Bert to Harlem		ComEd (100%)
b2613	Replace relays at Mazon substation		ComEd (100%)
b2692.1	Replace station equipment at Nelson, ESS H-471 and Quad Cities		AEC (0.18%) / AEP (18.69%) / APS (5.87%) / ATSI (7.86%) / BGE (3.32%) / ComEd (38.23%) / Dayton (2.76%) / DEOK (4.13%) / DL (2.23%) / Dominion (5.15%) / DPL (1.97%) / EKPC (1.36%) / JCPL (0.52%) / MetED (0.04%) / Neptune (0.04%) / PECO (1.08%) / PENELEC (1.25%) / PEPCO (3.56%) / PPL (0.45%) / PSEG (1.17%) / RECO (0.14%)

**Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
(cont.)**

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2692.2	Upgrade conductor ratings of Cordova – Nelson, Quad Cities – ESS H-471 and ESS H-471 – Nelson 345 kV lines and mitigating sag limitations	AEC (0.18%) / AEP (18.69%) / APS (5.87%) / ATSI (7.86%) / BGE (3.32%) / ComEd (38.23%) / Dayton (2.76%) / DEOK (4.13%) / DL (2.23%) / Dominion (5.15%) / DPL (1.97%) / EKPC (1.36%) / JCPL (0.52%) / MetED (0.04%) / Neptune (0.04%) / PECO (1.08%) / PENELEC (1.25%) / PEPCO (3.56%) / PPL (0.45%) / PSEG (1.17%) / RECO (0.14%)
b2693	Replace L7815 B phase line trap at Wayne substation	ComEd (100%)
b2699.1	Replace 5 Powerton 345 kV CB's with 2 cycle IPO breakers, install one new 345 kV CB; swap line 0302 and line 0303 bus positions; reconfigure Powerton 345 kV bus as single ring configuration	ComEd (100%)
b2699.2	Remove SPS logic at Powerton that trips generators or sectionalizes bus under normal conditions; minimal SPS logic will remain	ComEd (100%)
b2721	Goodings Grove – Balance Station Load (swap bus positions for 345 kV lines 1312 & 11620 and 345 kV lines 11604 & 11622) and replace 138 kV bus tie 2-3	ComEd (100%)

**Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
(cont.)**

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2728	Mitigate sag limitations on Loretto – Wilton Center 345 kV Line and replace station conductor at Wilton Center		ATSI (3.43%) / AEP (3.34%) / ComEd (92.02%) / DLCO (1.21%)
b2732.1	Cut-in of line 93505 Tazewell – Kendall 345 kV line into Dresden		ComEd (100%)
b2732.2	Raise towers to remove the sag limitations on Pontiac – Loretto 345 kV line		ComEd (100%)

SCHEDULE 12 – APPENDIX A

(18) Duquesne Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2175.1	200 MVAR shunt reactor at Brunot Island 345 kV	DL (100%)
b2175.2	200 MVAR shunt reactor on future Brunot Island – Carson 345 kV circuit	DL (100%)
b2198	Revise the reclosing for the Brunot Island 138 kV breaker 'Z-40 COLLIER'	DL (100%)
b2199	Revise the reclosing for the Brunot Island 138 kV breaker 'Z-41 COLLIER'	DL (100%)
b2200	Revise the reclosing for the Crescent 138 kV breaker 'Z-29 Beaver'	DL (100%)
b2201	Revise the reclosing for the Crescent 138 kV breaker 'Z-82 VALLEY'	DL (100%)
b2202	Revise the reclosing for the Crescent 138 kV breaker 'Z-21 NORTH'	DL (100%)
b2203	Revise the reclosing for the Elrama 138 kV breaker 'Z18-USX CLAI'	DL (100%)
b2204	Revise the reclosing for the Elrama 138 kV breaker 'Z13-WEST MIF'	DL (100%)
b2205	Revise the reclosing for the Elrama 138 kV breaker 'Z15-DRAVOSBU'	DL (100%)
b2206	Revise the reclosing for the Woodville 138 kV breaker 'Z-106 PINEY'	DL (100%)
b2207	Revise the reclosing for the Woodville 138 kV breaker 'Z-64 COLLIER'	DL (100%)
b2208	Revise the reclosing for the Beaver Valley 138 kV breaker 'Z-28 CRESCEN'	DL (100%)

Duquesne Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2209	Revise the reclosing for the Cheswick 138 kV breaker 'Z-51 WILMERD'	DL (100%)
b2280	Replace the USAP 138kV breaker 'XFMR'	DL (100%)
b2303	Revise the reclosing to the Dravosburg 138kV breaker 'Z73 West Mifflin' from 5 sec to 15 sec	DL (100%)
b2563	Operate with the Crescent 345/138 kV #3 autotransformer in-service by replacing 8 overdutied 138 kV breakers at Crescent, 3 138 kV breakers at Beaver Valley, install #1 section 345 kV breaker for 331 circuit at Crescent	DL (100%)
b2632	Replace the Oakland 138 kV 'Z-101 Arsenal' breaker	DL (100%)
b2639	Replace the Crescent 138 kV 'NO3 – 4 138' breaker with a 63kA breaker	DL (100%)
b2640	Replace the Crescent 138 kV 'Z-143 SWCKLY' breaker with a 63kA breaker	DL (100%)
b2641	Replace the Crescent 138 kV 'Z-24 MONTOUR' breaker with a 63kA breaker	DL (100%)
b2642	Replace the Crescent 138 kV 'Z-28 BEAVER' breaker with a 63kA breaker	DL (100%)
b2689.1	Reconductor approximately 7 miles of the Woodville – Peters (Z-117) 138 kV circuit	AEC (1.00%) / APS (66.39%) / BGE (4.62%) / DOM (8.84%) / DPL (5.85%) / Neptune (0.12%) / PECO (3.40%) / PEPCO (6.32%) / PSEG (3.46%)

Duquesne Light Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement	Responsible Customer(s)
b2689.2	Reconfigure West Mifflin-USS Clairton (Z-15) 138 kV circuit to establish Dravosburg-USS Clairton (Z-14) 138 kV circuit and West Mifflin-Wilson (Z-15) 138 kV circuit		AEC (1.00%) / APS (66.39%) / BGE (4.62%) / DOM (8.84%) / DPL (5.85%) / Neptune (0.12%) / PECO (3.40%) / PEPCO (6.32%) / PSEG (3.46%)

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 63kA rating		Dominion (100%)
b1696.1	Replace the Idylwood 230 kV '25112' breaker with 50kA breaker		Dominion (100%)
b1696.2	Replace the Idylwood 230 kV '209712' breaker with 50kA 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 Doods - 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 63kA breaker	Dominion (100%)
b2369	Replace the Brambleton 230 kV breaker '213702' with 63kA breaker	Dominion (100%)
b2370	Replace the Brambleton 230 kV breaker 'H302' with 63kA 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	Dominion (100%)
b2397	Replace the Beaumeade 230 kV breaker '2079T2116' with 63kA	Dominion (100%)
b2398	Replace the Beaumeade 230 kV breaker '2079T2130' with 63kA	Dominion (100%)
b2399	Replace the Beaumeade 230 kV breaker '208192' with 63kA	Dominion (100%)
b2400	Replace the Beaumeade 230 kV breaker '209592' with 63kA	Dominion (100%)
b2401	Replace the Beaumeade 230 kV breaker '211692' with 63kA	Dominion (100%)
b2402	Replace the Beaumeade 230 kV breaker '227T2130' with 63kA	Dominion (100%)
b2403	Replace the Beaumeade 230 kV breaker '274T2130' with 63kA	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)
b2404	Replace the Beaumeade 230 kV breaker '227T2095' with 63kA	Dominion (100%)
b2405	Replace the Pleasant view 230 kV breaker '203T274' with 63kA	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 50kA	Dominion (100%)
b2443.2	Replace the Ox 230 kV breaker '206342' with 63kA breaker	Dominion (100%)
b2443.3	Glebe – Station C PAR	DFAX Allocation: Dominion (22.57%) / PEPCO (77.43%)
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%)
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%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
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	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: Dominion (100%)</p>
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 50kA breaker	Dominion (100%)
b2543	Replace the Loudoun 500 kV 'H2T584' breaker with a 50kA 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%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2582	Rebuild the Elmont – Cunningham 500 kV line	Dominion (100%)
b2583	Install 500 kV breaker at Ox Substation to remove Ox Tx#1 from H1T561 breaker failure outage.	Dominion (100%)
b2584	Relocate the Bremo load (transformer #5) to #2028 (Bremo-Charlottesville 230 kV) line and Cartersville distribution station to #2027 (Bremo-Midlothian 230 kV) line	Dominion (100%)
b2585	Reconductor 7.63 miles of existing line between Cranes and Stafford, upgrade associated line switches at Stafford	DFAX Allocation: 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%)

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 Boydton 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%)
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%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2665	Rebuild the Cunningham – Doods 500 kV line	Dominion (100%)
b2686	Pratts Area Improvement	Dominion (100%)
b2686.1	Build a 230 kV line from Remington Substation to Gordonsville Substation utilizing existing ROW	Dominion (100%)
b2686.11	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%)
b2686.2	Install a 3rd 230/115 kV transformer at Gordonsville Substation	Dominion (100%)

*Neptune Regional Transmission System, LLC

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements		Annual Revenue Requirement Responsible Customer(s)	
b2686.3	Upgrade Line 2088 between Gordonsville Substation and Louisa CT Station		Dominion (100%)
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 50kA 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 (1.97%) / BGE (14.46%) / Dominion (35.33%) / DPL (3.78%) / JCPL (3.33%) / ME (2.53%) / Neptune (0.63%) / PECO (6.30%) / PEPCO (20.36%) / PPL (3.97%) / PSEG (7.34%)

Virginia Electric and Power Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2744	Rebuild the Carson – Rogers Rd 500 kV circuit	<p>Load-Ratio Share Allocation: AEC (1.66%) / AEP (14.16%) / APS (5.73%) / ATSI (7.88%) / BGE (4.22%) / ComEd (13.31%) / Dayton (2.11%) / DEOK (3.29%) / DL (1.75%) / DPL (2.50%) / Dominion (12.86%) / EKPC (1.87%) / JCPL (3.74%) / ME (1.90%) / NEPTUNE* (0.44%) / PECO (5.34%) / PENELEC (1.89%) / PEPCO (3.99%) / PPL (4.84%) / PSEG (6.26%) / RE (0.26%)</p> <p>DFAX Allocation: Dominion (100%)</p>
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%)

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 Doods – Valley 500kV	Dominion (100%)
b2759	Rebuild Line #550 Mt. Storm – Valley 500kV	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 115kV	Dominion (100%)
b2815	Build a new Pinewood 115kV switching station at the tap serving North Doswell DP with a 115kV four breaker ring bus	Dominion (100%)
b2842	Update the nameplate for Mount Storm 500 kV "57272" to be 50kA breaker	Dominion (100%)
b2843	Replace the Mount Storm 500 kV "G2TY" with 50kA breaker	Dominion (100%)
b2844	Replace the Mount Storm 500 kV "G2TZ" with 50kA breaker	Dominion (100%)
b2845	Update the nameplate for Mount Storm 500 kV "G3TSX1" to be 50kA breaker	Dominion (100%)
b2846	Update the nameplate for Mount Storm 500 kV "SX172" to be 50kA breaker	Dominion (100%)
b2847	Update the nameplate for Mount Storm 500 kV "Y72" to be 50kA breaker	Dominion (100%)
b2848	Replace the Mount Storm 500 kV "Z72" with 50kA 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%)

