



PJM Interconnection, L.L.C.
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August 26, 2021

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

Re: PJM Interconnection, L.L.C., Docket No. ER21-2774-000

[30-Day Comment Period Requested]

Dear Secretary Bose:

In accordance with PJM Open Access Transmission Tariff (“Tariff”), Schedule 12¹ and Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”), Schedule 6, section 1.6, and pursuant to section 205 of the Federal Power Act,² PJM Interconnection, L.L.C. (“PJM”) hereby submits amendments to Tariff, Schedule 12-Appendix A to incorporate cost responsibility assignments for two baseline upgrades in the recent update to the Regional Transmission Expansion Plan (“RTEP”) approved by the PJM Board of Managers (“PJM Board”) on July 29, 2021.³ PJM requests that the revised Tariff sections become effective on November 24, 2021, 90 days after the date of this filing.

¹ All capitalized terms that are not otherwise defined herein have the meaning as defined in the Tariff, Operating Agreement, and Reliability Assurance Agreement among Load Serving Entities in the PJM Region.

² 16 U.S.C. § 824d.

³ The baseline upgrades approved by the PJM Board on July 29, 2021 include two new transmission system enhancements and expansions with an estimated cost of \$0.54 million.

I. DESCRIPTION OF FILING

A. *Tariff, Schedule 12 Requirements to Designate Cost Responsibility Assignments*

Pursuant to Tariff, Schedule 12, PJM is required to designate in Tariff, Schedule 12-Appendix A cost responsibility assignments for all transmission enhancements and expansions included in the RTEP after February 1, 2013.⁴ Similarly, Tariff, Schedule 12 requires that within 30 days of the PJM Board's approval of each RTEP, or addition to the RTEP, PJM shall designate in Tariff, Schedule 12-Appendix A, and in a report filed with the Federal Energy Regulatory Commission ("Commission"), the "Responsible Customers"⁵ that will be subject to charges related to transmission enhancements and expansions included in the RTEP.⁶ Tariff, Schedule 12 further provides that customers designated to be responsible for assignments of costs that PJM files with the Commission shall have 30 days from the date of such filing to submit comments regarding the proposed cost responsibility assignments.⁷

Accordingly, PJM hereby submits amendments to Tariff, Schedule 12-Appendix A to include the new cost responsibility assignments for RTEP upgrades approved by the PJM Board on July 29, 2021. The revised Tariff sections containing new language, including new cost

⁴ *PJM Interconnection, L.L.C.*, 142 FERC ¶ 61,214, at PP 411, 448 (2013) (accepting revisions to Tariff, Schedule 12 modifying the cost allocation methodologies for transmission projects included in the RTEP, effective February 1, 2013).

⁵ Responsible Customers include "the customers using Point-to-Point Transmission Service and/or Network Integration Transmission Service and Merchant Transmission Facility owners that will be subject to each such Transmission Enhancement Charge." See Tariff, Schedule 12, section (b)(viii).

⁶ *Id.*; see also Operating Agreement, Schedule 6, section 1.6.

⁷ See Tariff, Schedule 12, section (b)(viii).

responsibility assignments, are reflected in redline and clean format in Attachments B and C, respectively, to this filing.⁸

1. Assignment of Cost Responsibility for Regional Facilities

The new transmission enhancements or expansions included in this most recent update to the RTEP approved by the PJM Board on July 29, 2021 are not Regional Facilities or Necessary Lower Voltage Facilities.⁹ Thus, PJM does not include any cost responsibility assignments for such facilities in Tariff, Schedule 12-Appendix A with this filing.

2. Assignments of Cost Responsibility for Lower Voltage Facilities Needed for Reliability

a. Cost Responsibility Assignments that Address Transmission Enhancements Costing Less than \$5 Million

Tariff, Schedule 12, section (b)(vi) provides that, notwithstanding Tariff, Schedule 12, sections (b)(i), (b)(ii), (b)(iv) and (b)(v), cost responsibility for an enhancement or expansion for which the good faith estimate of the cost of such enhancement or expansion included for the first time in the RTEP does not equal or exceed \$5 million shall be assigned to the zone where the enhancement or expansion is to be located. Consistent with Tariff, Schedule 12, section (b)(vi), PJM proposes revisions to Tariff, Schedule 12-Appendix A to include cost responsibility assignments for one (1) enhancement or expansion needed for reliability.¹⁰ Therefore, consistent

⁸ The revised Tariff sections do not include any proposed rates or charges for recovery of any system upgrade costs. In accordance with Tariff, Schedule 12, recovery of the costs of such facilities that the RTEP requires Transmission Owners to construct, own and/or finance is governed by the Transmission Owners' established rates.

⁹ As defined in PJM Tariff, Schedule 12, section (b)(i), Regional Facilities include transmission enhancements and expansions that, among other things, will operate at or above 500 kV or will be double-circuit 345 kV facilities; and Necessary Lower Voltage Facilities include transmission enhancements and expansions that operate below 500 kV, or 345 kV in the case of double-circuit 345 kV facilities, that must be constructed or strengthened to support new Regional Facilities.

¹⁰ The enhancement or expansion allocated pursuant to Tariff, Schedule 12, section (b)(vi) includes the following: b3317.

with Tariff, Schedule 12, section (b)(vi), cost responsibility for such enhancement or expansion shall be allocated 100 percent to the zone of the Transmission Owner where the enhancement or expansion is to be located.

b. Cost Responsibility Assignments that Address Spare Parts, Replacement Equipment and Circuit Breakers

Tariff, Schedule 12, section (b)(iv)(C) provides that cost responsibility for circuit breakers and associated equipment independently included in the RTEP and not a part of the design specifications of a transmission element of a Required Transmission Enhancement shall be assigned to the zone of the owner of the circuit breakers and associated equipment, if the owner of the circuit breakers and associated equipment is a Transmission Owner listed in Tariff, Attachment J. PJM proposes revisions to Tariff, Schedule 12-Appendix A to include cost responsibility assignment for one (1) enhancement needed to address a standalone circuit breaker and associated equipment.¹¹ Therefore, consistent with Tariff, Schedule 12, section (b)(iv)(C), cost responsibility for such enhancement shall be allocated 100 percent to the zone of the Transmission Owner of the circuit breaker and associated equipment.

B. Cost Responsibility Assignment Summary

For informational purposes, PJM also includes as Attachment A to this filing a Cost Responsibility Assignment Summary for the enhancements or expansions approved by the PJM Board on July 29, 2021. In addition to specifying the cost responsibility assignments for the enhancements or expansions, the summary sheets provide the criteria violation and test, a

¹¹ The enhancement or expansion allocated pursuant to Tariff, Schedule 12, section (b)(iv) includes the following: b3316.

description of the upgrade, in-service date, estimated upgrade costs, and the entity designated with construction responsibility for each enhancement or expansion.

II. COMMENT PERIOD

Tariff, Schedule 12, section (b)(viii) provides that customers designated to be responsible for assignments of cost responsibility shall have 30 days from the date of such filing to seek review regarding the proposed cost responsibility assignments. Consistent with this provision, PJM requests that the comment date for this filing be set 30 days from the date of this filing, September 25, 2021.¹² To accommodate such a comment date, PJM requests an effective date of November 24, 2021 (90 days from the date of this filing) for all revised Tariff sections submitted in this docket.¹³

III. DOCUMENTS ENCLOSED

PJM encloses the following:

1. This transmittal letter;
2. Attachment A – Cost Responsibility Assignment Summary Sheets;
3. Attachment B – Revised Tariff, Schedule 12-Appendix A (in redlined form); and
4. Attachment C – Revised Tariff, Schedule 12-Appendix A (in clean form).

¹² Because September 25, 2021 falls on a Saturday, comments would be due on Monday, September 27, 2021. *See* 18 C.F.R. § 385.2007 (a)(2) (2020).

¹³ *See, e.g., PJM Interconnection, L.L.C.*, Errata Notice of Extending Comment Period, Docket Nos. ER06-456-018, *et al.* (Dec. 2, 2008) (granting extension of time for filing protests or comments to accommodate Tariff, Schedule 12 of the PJM Tariff); *PJM Interconnection, L.L.C.*, Errata Notice Extending Comment Date, Docket No. ER08-229-000 (Nov. 30, 2007) (same); *PJM Interconnection, L.L.C.*, Notice Extending Comment Date, Docket No. ER07-1186-000 (July 31, 2007) (same).

IV. CORRESPONDENCE AND COMMUNICATIONS

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

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Vice President – Federal Government Policy
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V. 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,¹⁴ 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/fercfilings.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 Region¹⁵ alerting them that this filing has been made by PJM and is available by following

¹⁴ See 18 C.F.R. §§ 35.2(e) and 385.2010(f)(3) (2020).

¹⁵ PJM already maintains, updates and regularly uses e-mail lists for all PJM Members and affected state commissions.

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 Commission'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.

Respectfully submitted,

By: /s/ Alejandro Bautista

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Attachment A

Cost Responsibility Assignment Summary Sheets

Baseline Upgrade b3316

- Overview of Reliability Problem
 - Criteria Violation: Over duty breaker
 - Contingency: N/A
 - Criteria Test: Short Circuit

- Overview of Reliability Solution
 - Description of Upgrade: Replace 138 kV 40 kA breaker GJ-138C with a 63 kA breaker at Greene substation
 - Required Upgrade In-Service Date: June 01, 2025
 - Estimated Upgrade Cost: \$ 0.28 M
 - Construction Responsibility: Dayton

- Cost Allocation
 - The cost for this baseline upgrade is allocated 100% to Dayton

Baseline Upgrade b3317

- Overview of Reliability Problem
 - Criteria Violation: Existing instabilities at 138 kV STA16 Waukegan station
 - Contingency: Close-in three-phase faults with breaker failure
 - Criteria Test: ComEd FERC Form 715 Criteria - Stability

- Overview of Reliability Solution
 - Description of Upgrade: Modify backup relay clearing times at the 138 kV STA16 Waukegan station
 - Required Upgrade In-Service Date: June 01, 2023
 - Estimated Upgrade Cost: \$ 0.26 M
 - Construction Responsibility: ComEd

- Cost Allocation
 - The cost for this baseline upgrade is allocated 100% to ComEd

Attachment B

Schedule 12 – Appendix A of the
PJM Open Access Transmission Tariff

(Marked / Redline Format)

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 kmil 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%) / APS (5.86%) / ATSI (7.85%) / BGE (3.32%) / ComEd (38.21%) / 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%) / APS (5.86%) / ATSI (7.85%) / BGE (3.32%) / ComEd (38.21%) / 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	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%)
b2751	Rebuild/Resag the H440 - H440 Tap 138 kV line 16914-2 (Hays Road - SW 1403 138 kV)	ComEd (100%)
b2930	Upgrade capacity on E. Frankfort – University Park 345 kV	ComEd (100%)
b2931	Upgrade substation equipment at Pontiac Midpoint station to increase capacity on Pontiac – Brokaw 345 kV line	ComEd (100%)
b2941	Build an indoor new Elk Grove 138 kV GIS substation at the point where Rolling Meadows & Schaumburg tap off from the main lines, between Landmeier and Busse. The four 345 kV circuits in the ROW will be diverted into Gas Insulated Bus (GIB) and go through the basement of the building to provide clearance for the above ground portion of the building	ComEd (100%)
b2959	Install a new 138 kV circuit 18702 from Schauff Road to Rock Falls and install a fourth breaker and a half run at Schauff Road	ComEd (100%)

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

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2995	Remove Davis Creek RAS	ComEd (100%)
b2997	Remove University Park North RAS	ComEd (100%)
b2998	Install a 120 MVAR 345 kV shunt inductor at Powerton (the 345 kV yard already contains an empty bus position on the ring we only need a switching breaker for the inductor)	ComEd (100%)
b2999	Rebuild the 12.36 mile Schauff Road to Nelson tap 138 kV line L15508	ComEd (100%)
b3049	Replace 345 kV breaker at Joliet substation	ComEd (100%)
b3111	Install high-speed backup clearing scheme on the E. Frankfort – Matteson 138 kV line (L6603)	ComEd (100%)
b3147	Modify 138 kV blue bus total clearing times at TSS 111 Electric Junction to eleven (11) cycles for fault on 345/138 kV Transformer 81, and to thirteen (13) cycles for faults on 138 kV Line #11106, 138 kV Line #11102 and 345/138 kV Transformer 82	ComEd (100%)
<u>b3317</u>	<u>Replace 138 kV 40 kA breaker GJ-138C with a 63 kA breaker at Greene substation</u>	<u>ComEd (100%)</u>

SCHEDULE 12 – APPENDIX A

(16) The Dayton Power and Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2540	Increase rating of Shelby-E. Sidney-Quincy-Logan 138kV line to 224 MVA by replace/raise three pole swing out structure; push/pull/retension conductors on two spans; lower eight spans of single phase	Dayton (100%)
b2541	As needed in PJM Operations connect two 30 MVAR mobile shunts to Eldean and Sidney 69 kV buses; Block LTCs for Eldean 138/69 kV and Sidney 138/69kV transformers after loss of Shelby-Sidney 138kV line	Dayton (100%)
b2879.1	Replace wavetrap at the Stuart 345 kV substation	Dayton (100%)
b3108.1	Install 100 MVAR reactor at Miami 138 kV substation	Dayton (100%)
b3108.2	Install 100 MVAR reactor at Sugarcreek 138 kV substation	Dayton (100%)
b3108.3	Install 100 MVAR reactor at Hutchings 138 kV substation	Dayton (100%)

The Dayton Power and Light Company (cont.)

Required Transmission Enhancements Annual Revenue Requirement Responsible Customer(s)

b3133	Move the existing Botkins 69 kV capacitor from the Sidney - Botkins side of the existing breaker at Botkins to the Botkins - Jackson center side. This will keep the capacitor in-service for the loss of Sidney - Botkins. This reduces the voltage drop to less than 3% and also resolves the overload on the Blue Jacket Tap - Huntsville 69 kV line		Dayton (100%)
<u>B3316</u>	<u>Replace 138 kV 40 kA breaker GJ-138C with a 63 kA breaker at Greene substation</u>		<u>Dayton (100%)</u>

Attachment C

Schedule 12 – Appendix A of the
PJM Open Access Transmission Tariff

(Clean Format)

SCHEDULE 12 – APPENDIX A

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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.
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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 kmil 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%) / APS (5.86%) / ATSI (7.85%) / BGE (3.32%) / ComEd (38.21%) / 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.
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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.
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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%)
b2751	Rebuild/Resag the H440 - H440 Tap 138 kV line 16914-2 (Hays Road - SW 1403 138 kV)	ComEd (100%)
b2930	Upgrade capacity on E. Frankfort – University Park 345 kV	ComEd (100%)
b2931	Upgrade substation equipment at Pontiac Midpoint station to increase capacity on Pontiac – Brokaw 345 kV line	ComEd (100%)
b2941	Build an indoor new Elk Grove 138 kV GIS substation at the point where Rolling Meadows & Schaumburg tap off from the main lines, between Landmeier and Busse. The four 345 kV circuits in the ROW will be diverted into Gas Insulated Bus (GIB) and go through the basement of the building to provide clearance for the above ground portion of the building	ComEd (100%)
b2959	Install a new 138 kV circuit 18702 from Schauff Road to Rock Falls and install a fourth breaker and a half run at Schauff Road	ComEd (100%)

**Commonwealth Edison Company and Commonwealth Edison Company of Indiana, Inc.
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Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2995	Remove Davis Creek RAS	ComEd (100%)
b2997	Remove University Park North RAS	ComEd (100%)
b2998	Install a 120 MVAR 345 kV shunt inductor at Powerton (the 345 kV yard already contains an empty bus position on the ring we only need a switching breaker for the inductor)	ComEd (100%)
b2999	Rebuild the 12.36 mile Schauff Road to Nelson tap 138 kV line L15508	ComEd (100%)
b3049	Replace 345 kV breaker at Joliet substation	ComEd (100%)
b3111	Install high-speed backup clearing scheme on the E. Frankfort – Matteson 138 kV line (L6603)	ComEd (100%)
b3147	Modify 138 kV blue bus total clearing times at TSS 111 Electric Junction to eleven (11) cycles for fault on 345/138 kV Transformer 81, and to thirteen (13) cycles for faults on 138 kV Line #11106, 138 kV Line #11102 and 345/138 kV Transformer 82	ComEd (100%)
b3317	Replace 138 kV 40 kA breaker GJ-138C with a 63 kA breaker at Greene substation	ComEd (100%)

SCHEDULE 12 – APPENDIX A

(16) The Dayton Power and Light Company

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b2540	Increase rating of Shelby-E. Sidney-Quincy-Logan 138kV line to 224 MVA by replace/raise three pole swing out structure; push/pull/retension conductors on two spans; lower eight spans of single phase	Dayton (100%)
b2541	As needed in PJM Operations connect two 30 MVAR mobile shunts to Eldean and Sidney 69 kV buses; Block LTCs for Eldean 138/69 kV and Sidney 138/69kV transformers after loss of Shelby-Sidney 138kV line	Dayton (100%)
b2879.1	Replace wavetrap at the Stuart 345 kV substation	Dayton (100%)
b3108.1	Install 100 MVAR reactor at Miami 138 kV substation	Dayton (100%)
b3108.2	Install 100 MVAR reactor at Sugarcreek 138 kV substation	Dayton (100%)
b3108.3	Install 100 MVAR reactor at Hutchings 138 kV substation	Dayton (100%)

The Dayton Power and Light Company (cont.)

Required Transmission Enhancements	Annual Revenue Requirement	Responsible Customer(s)
b3133		Dayton (100%)
B3316		Dayton (100%)