

**BEFORE THE**  
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. P-2024-\_\_\_\_\_**

**PPL Electric Utilities Corporation**

**Statement No. 1**

**Direct Testimony of Andrew Castanaro**

Topics Addressed:      Default Service Program and Procurement Plan  
Request for Proposals Process and Rules  
Default Service Supply Master Agreement  
Alternative Energy Credits  
Time of Use Program  
Electric Vehicle Rate  
Third-Party Administrator  
Compliance with Regional Transmission  
Organization

**Date: March 12, 2024**

1    **I.    INTRODUCTION**

2    **Q.    Please state your name and business address.**

3    A.    My name is Andrew Castanaro. My business address is 827 Hausman Road, Allentown,  
4        Pennsylvania 18104.

5

6    **Q.    What is your current position?**

7    A.    I am employed by PPL Services Corporation (“PPL Services”), an affiliate of PPL  
8        Electric Utilities Corporation (“PPL Electric” or the “Company”), as the Energy  
9        Procurement Manager.

10

11   **Q.    Please describe your primary responsibilities in that position.**

12   A:    My primary responsibilities include managing PPL Electric’s Default Service auctions  
13        and related activities; managing energy contracts and associated credit provisions; and  
14        managing the alternative energy credit (“AEC”) contracts and associated state reporting  
15        obligations. I am also responsible for similar programs in other jurisdictions in which  
16        PPL Electric affiliates operate.

17

18   **Q.    Please describe your educational experience.**

19   A:    I graduated from Columbia University in 2006 with a Bachelor of Arts in Economics.

20

1 **Q. Please describe your professional experience.**

2 A: I began my career in 2010 with PPL Services Corporation, in the Risk Management  
3 Department, as a Market Analyst. In 2015, I joined Talen Energy, where I held the same  
4 title. In 2016, I returned to PPL Electric as a Financial Analyst. In 2017, I joined the  
5 Financial Planning & Analysis Department within PPL Services. In 2023, I was  
6 promoted to Manager of Energy Procurement within the Regulatory Affairs Department  
7 of PPL Services, which is the position I currently hold.

8

9 **Q. Have you testified previously before the Commission?**

10 A. No.

11

12 **Q. What is the purpose of your testimony?**

13 A. My testimony is being submitted in support of the Petition of PPL Electric for Approval  
14 of a Default Service Program and Procurement Plan for the Period June 1, 2025, through  
15 May 31, 2029 (“Petition”), filed with the Commission on March 12, 2024. Therein, PPL  
16 Electric requests approval of its sixth Default Service Program and Procurement Plan  
17 (“DSP VI Program”) to establish the terms and conditions under which PPL Electric will  
18 acquire and supply Default Service or provider of last resort service (“Default Service”),  
19 from June 1, 2025, through May 31, 2029 (the “DSP VI Program Period”). The subjects  
20 of my testimony include the following:

- 21 • A description of the background of, and essential elements of, the DSP VI  
22 Program;

- 1 • A description of the *pro forma* Requests for Proposals Process and Rules (“RFP
- 2 Rules”) and the *pro forma* Supplier Master Agreements (“SMA”) for both Fixed-
- 3 Price and Spot Market, Load-Following, Full Requirements (“Full-
- 4 Requirements”), Long-Term Block, Long-Term PA Solar AEC, Alternative
- 5 Energy Credits (“AEC”), and contingency Block, which are included as
- 6 Attachments A through J to the Petition, respectively;
- 7 • A description of the Time of Use (“TOU”) Program;
- 8 • Compliance with the Alternative Energy Portfolio Standards Act (“AEPS Act”);
- 9 • The selection of the independent third-party manager to administer procurement
- 10 under the Default Service Program;
- 11 • Compliance with Regional Transmission Organization (“RTO”) requirements;
- 12 and
- 13 • Consideration of an Electric Vehicle (“EV”) Default Service rate.

14

15 **Q. Please describe the direct testimony submitted by the Company in this proceeding.**

16 A. In addition to my direct testimony, the Company also has submitted the direct testimony

17 of the following witnesses that will explain the subject matter indicated:

- 18 • PPL Electric Statement No. 2 - the Direct Testimony of A. Joseph Cavicchi,
- 19 explaining the lessons learned from PPL Electric’s existing Default Service
- 20 Procurement Program, describing the products to be procured in the DSP VI
- 21 Program, explaining the procurement process, and describing how the DSP VI
- 22 Program meets the “prudent mix” and “least cost over time” requirements under
- 23 the Public Utility Code.

- 1           • PPL Electric Statement No. 3 - the Direct Testimony of Melinda Stumpf,  
2           explaining the history of the Company’s Standard Offer Program (“SOP”), and  
3           presenting the Company’s proposal to modify the SOP. Ms. Stumpf describes the  
4           Company’s proposed changes to the SOP moving forward, along with  
5           explanations and data supporting those proposed changes. Additionally, Ms.  
6           Stumpf testifies about proposed changes to how customers who are shopping  
7           enroll in the Company’s Customer Assistance Program (“CAP”), OnTrack.
- 8           • PPL Electric Statement No. 4 - the Direct Testimony of Bethany Johnson,  
9           explaining a proposed change to the effective date of the Company Transmission  
10          Service Charge (“TSC”) that is charged to default service customers. Ms.  
11          Johnson also provides information on the Company’s Generation Service Charge  
12          (“GSC”).

13

14 **Q. Are you sponsoring any exhibits in this proceeding?**

15 A. Yes. I am sponsoring the Company’s Petition, including the following attachments:  
16 Attachment A, the Full Requirements RFP Rules; Attachment B, the Full Requirements  
17 SMA; Attachment C, the Long-Term Block RFP Rules; Attachment D, the Long-Term  
18 Block SMA; Attachment E, the Long-Term PA Solar AEC RFP Rules, Attachment F, the  
19 Long-Term PA Solar AEC SMA; Attachment G, the AEC RFP Rules; Attachment H, the  
20 AEC SMA; Attachment I, the contingency Block RFP Rules; and Attachment J, the  
21 contingency Block SMA. Also included with the Petition is Attachment K, the *Pro*  
22 *Forma* Tariff provisions for the GSC-1, GSC-2 and TSC, which are sponsored by Ms.  
23 Johnson. The Company requests that the Petition, together with the accompanying

1 Attachments, be identified as PPL Electric Exhibit No. 1. I also am sponsoring the  
2 following exhibits that are attached to my testimony: PPL Electric Exhibits AC-1 (DSP  
3 V Solicitation Results to-date), AC-2 (PPL Electric Price to Compare (“PTC”) history),  
4 AC-3 (history of block energy contracts), AC-4 (DSP V AEC Solicitation Results to-  
5 date), and AC-5 (full requirements procurement comparison).

6  
7 **II. BACKGROUND**

8 **Q. Please explain why PPL Electric is filing the DSP VI Petition.**

9 A. Act 129 of 2008 (“Act 129”) became effective on October 15, 2008. Among other  
10 provisions, Act 129 amended the Electric Generation Customer Choice and Competition  
11 Act to require Electric Distribution Companies (“EDCs”), in their role as Default Service  
12 providers, to procure supply through competitive processes utilizing a “prudent mix” of  
13 contracts, and to offer a TOU rate option to customers with smart meters.

14 Pursuant to 52 Pa. Code § 54.185, a Default Service provider must file a Default  
15 Service program with the Commission no later than 12 months prior to the conclusion of  
16 the currently effective Default Service program. 52 Pa. Code § 54.185(a). PPL Electric’s  
17 current Commission-approved Default Service Program and Procurement Plan (“DSP V  
18 Program”) expires on May 31, 2025. To meet its statutory and regulatory Default Service  
19 obligation after the expiration of the DSP V Program, PPL Electric is filing the DSP VI  
20 Program to establish the terms and conditions under which PPL Electric will acquire and  
21 supply Default Service during the DSP VI Program Period.

22 This filing represents PPL Electric’s seventh program for procurement of Default  
23 Service Supply. The first procurement plan was known as the Competitive Bridge Plan,

1 or CBP, and operated for calendar year 2010. The next three plans, DSP I, DSP II, and  
2 DSP III, operated for the periods of January 1, 2011 through May 31, 2013, June 1, 2013  
3 through May 31, 2015, and June 1, 2015 through May 31, 2017, respectively. The next  
4 two plans, DSP IV and DSP V, were for four-year terms, from June 1, 2017 through May  
5 31, 2021, and June 1, 2021 through May 31, 2025, respectively. PPL Electric is  
6 proposing the DSP VI Program to establish the terms and conditions under which PPL  
7 Electric would continue to provide Default Service and obtain generation supply for the  
8 period beginning June 1, 2025 through May 31, 2029.

9  
10 **Q. What are some of the important aspects of the DSP V Program that are relevant to**  
11 **the DSP VI Program?**

12 A. By Final Order entered December 17, 2020, the Commission approved the Company's  
13 DSP V Program. *See Petition of PPL Electric Utilities Corporation for Approval of Its*  
14 *Default Service Program and Procurement Plan for the Period June 1, 2021 Through*  
15 *May 31, 2025*, Docket No. P-2020-3029356 (Order entered December 17, 2020) ("*DSP V*  
16 *Order*"). Importantly, PPL Electric plans to acquire the generation supply and related  
17 services needed to meet its Default Service obligation for the DSP VI Program Period  
18 through procedures similar to those previously approved by the Commission and used by  
19 PPL Electric for its Default Service supply under the DSP V Program. The DSP VI  
20 Program incorporates the best practices and lessons learned from the preceding default  
21 service programs, and includes several modifications designed to better address customer  
22 needs for the DSP VI Program Period.

1 **Q. Please provide a summary of the Commission-approved DSP V Program.**

2 A. PPL Electric’s current DSP V Program relies on a portfolio of Fixed-Price Full  
3 Requirements supplies for both the Residential and Small Commercial and Industrial  
4 (“Small C&I”) customers. The Residential customer portfolio also includes a meaningful  
5 portion (100 MW or approximately 10% of recent Residential Default Service load) of 5-  
6 year fixed-price block supply. The first 50 MW block product expires May 31, 2026, and  
7 the second 50 MW product expires November 30, 2026. The Residential and Small C&I  
8 product mixtures are designed around the purchase of Fixed-Price Full Requirements  
9 products with 6- and 12-month contract terms using a laddered procurement approach.  
10 Under the laddered procurement approach, the procurements are staggered rather than  
11 procuring all of the products at the same time. Under the DSP V Program, the  
12 Residential Customer Class utilizes staggered 12-month products reflecting a total of  
13 80% of the load requirement, and 6-month products reflecting 20% of the load  
14 requirement (where the Default Service load is first reduced to account for the 100 MW  
15 block supplies). Twelve-month contracts reflecting 40% of the load requirement  
16 continue in effect through November 30, 2025. The Small C&I Customer Class utilizes  
17 staggered 12-month products reflecting a total of 55% of load requirements, and 6-month  
18 products reflecting 45% of load requirements. Twelve-month contracts reflecting 25% of  
19 the load requirements continue in effect through November 30, 2025. The Company  
20 conducts competitive solicitations to purchase these Default Service products.

21 For its Large Commercial and Industrial (“Large C&I”) customers, PPL Electric’s  
22 DSP V Program provides Spot Market Full Requirements contracts. This product  
23 includes an energy component priced at wholesale electricity real-time hourly spot

1 market prices to meet the Default Service demand of those customers electing to receive  
2 Default Service. These are 12-month products effective June 1 of each year.

3 With respect to its obligation under the AEPS Act, the Company procures AECs  
4 through a separate, biannual, auction process under a pilot program to fulfill PPL  
5 Electric's AEPS obligation.

6 The DSP V Program's procurement process is administered by an independent  
7 third-party, NERA Economic Consulting ("NERA"). NERA monitors the results of each  
8 solicitation to confirm that they are consistent with prevailing market prices. NERA also  
9 submits confidential reports to the Commission evaluating the solicitation process and the  
10 results of each solicitation.

11  
12 **Q. Has the Company been successful in procuring the products under the DSP V**  
13 **Program?**

14 A. Yes. PPL Electric has successfully procured both Fixed-Price and Spot Market Full  
15 Requirements supply as part of its product portfolio going back to July 2007, when PPL  
16 Electric first began procuring supplies for its 2010 Competitive Bridge Plan, through its  
17 most recent DSP V solicitation. The results from PPL Electric's solicitations confirm  
18 that these Default Service products draw numerous suppliers offering bids in each  
19 auction, and that multiple bidders are successful suppliers. There currently is substantial  
20 competition to supply both the Fixed-Price and Spot Market Full Requirements supply  
21 products, and the AEC credits. The Company also has been successful in procuring  
22 block products.

23

1 **Q. Does PPL Electric offer a TOU rate option under the DSP V Program?**

2 A. Yes. Pursuant to 66 Pa.C.S. § 2807(f)(5), PPL Electric, as the Default Service provider,  
3 is required to offer a TOU rate option to its Default Service customers. The Company  
4 currently provides a TOU rate option to Residential and Small C&I customers through its  
5 tariff.

6

7 **Q. Is the Company proposing changes to its Default Service Procurement or TOU**  
8 **Procurement relative to the DSP V Program?**

9 A. PPL Electric's proposed DSP VI Program is seeking to implement several changes to the  
10 types of energy products and the means to procure them when compared to prior Default  
11 Service Program and Procurement Plans. These changes are designed to improve the  
12 Company's Default Service offerings by providing lower and more stable prices to  
13 customers. The Company is seeking four procurement-related changes in the DSP VI  
14 Plan: (1) the procurement of a Long-Term (10-year) Block contract for the Residential  
15 Customer Class with the current Block product as a contingency plan; (2) re-  
16 incorporating the procurement of AECs as an obligation of the supplier for the Full  
17 Requirements products; (3) adjusting the lead times for the semi-annual wholesale  
18 auctions from two months (April and October) to four and five months (February and  
19 July), respectively; (4) procuring Fixed-Price Full Requirements products with 12- and  
20 24-month contract terms, and eliminating 6-month contract terms except for a short  
21 period in 2025 as the Company transitions from the DSP V procurement schedule to the  
22 DSP VI procurement schedule ("Transition Period"); and (5) procuring Long-Term (20-  
23 year) PA Solar AECs through a long-term RFP.

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**Q. Is the Company proposing any additional changes as part of this filing?**

A. Yes. Compared to the product and service offerings of DSP V, PPL Electric is seeking to make four additional changes:

- Improving the experience of customers participating in the SOP through the implementation of SOP related program changes;
- Changing the timing of filing TSC changes with the Commission;
- Allowing for the automatic return to default service for customers applying for OnTrack; and
- Adjusting the on-peak hours for TOU.

**Q. Can you provide additional detail of the differences between the Commission-approved DSP V Program and the proposed DSP VI Program?**

A. Yes, in addition to the changes previously mentioned, DSP VI proposes to do the following:

- Procuring 150 MW of Long-Term Block agreements with a 10-year term for conventional supply, including capacity, for the Residential Class;
- Procuring up to 30,000 PA solar AECs delivered annually through a long-term, 20-year contract;
- Revising the Full Requirements SMA to include AEC obligations, establishing a Capacity Proxy Price, incorporating the International Swaps and Derivatives Association (“ISDA”) 2018 U.S. Resolution Stay Protocol as a supplement, and other provisions related to security;

- Changing on-peak hours for TOU to 3 PM to 7 PM annually;

### **III. DESCRIPTION OF THE DSP VI PROGRAM**

#### **A. OVERVIEW OF DSP VI PROGRAM**

**Q. Please summarize the essential elements of PPL Electric’s DSP VI Program.**

A. PPL Electric will procure Default Service supply separately for its three Customer Classes: Residential; Small C&I; and Large C&I. The Company will purchase energy, capacity, transmission (other than Non-market-based Transmission Services),<sup>1</sup> ancillary services, transmission and distribution losses, congestion management costs, AECs, and such other services or products that are required to supply Default Service to PPL Electric’s retail customers, through a series of Full-Requirements contracts. Additionally, PPL Electric will procure 150 MWs of Long-Term Block supply for a 10-year term, and up to 30,000 PA Solar AECs through 20-year contracts to be used in serving the Residential customer class. The Long-Term Block contract will be 24x7 capacity and energy supply obligations. Ancillary services required in association with the Long-Term Block contract will be procured by PPL Electric through the PJM Interconnection, LLC (“PJM”) markets. Finally, the Company will procure the remainder of its AEC obligations, not otherwise provided under the Full Requirements contracts or the Long-Term PA Solar AEC contracts through competitive wholesale

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<sup>1</sup> The Non-market-based Transmission Services that will not be purchased from wholesale suppliers by the Company through the Default Service auction process include: Network Integration Transmission Services; Transmission Enhancement Costs; Expansion Cost Recovery Costs; Non-Firm Point-to-Point Transmission Service Credits; Regional Transmission Expansion Plan; and Generation Deactivation Charges. These services will be procured by PPL Electric directly from PJM. This is how PPL Electric currently procures these services under DSP V.

1 auctions, divided by tier type: Tier I Solar, Tier I Non-solar, and Tier II. The Company  
2 proposes to recover the cost of obtaining all services necessary to provide Default Service  
3 from the customers in each respective Customer Class.  
4

5 **Q. Please explain the proposed term of the DSP VI Program Period.**

6 A. PPL Electric proposes that the DSP VI Program be in effect for a period of four years,  
7 from June 1, 2025 through May 31, 2029. The Company proposes to continue the 4-year  
8 plan format in effect as part of DSP IV and DSP V because the proposed DSP VI  
9 Program is generally similar to its predecessors. PPL Electric adopted a 4-year energy  
10 plan in DSP IV, which has continued through the existing DSP V. As explained in the  
11 prior plans, the relatively short, market reflective terms of the DSP I through DSP III  
12 enabled the Company to enact refinements to the procurement process and products. The  
13 Company has always sought to develop a Default Service plan that is transparent in  
14 process and practice, balancing market reflectivity and reducing price volatility for  
15 customers. The Company believes it is proposing a prudent mix of products that should  
16 not need modification for a four-year period.

17 Additionally, PPL Electric's DSP IV and DSP V have been able to achieve  
18 equivalent auction results to those found in prior, shorter term energy plans, while saving  
19 litigation costs and time that would have otherwise been incurred. This directly  
20 translated to reduced administrative costs to customers. For these reasons, PPL Electric  
21 believes that it is reasonable and appropriate to continue utilizing a four-year term for  
22 DSP VI.  
23

1 **Q. Please summarize the auction results from DSP V to date.**

2 A. At the time of this direct testimony, the Company has completed six of eight energy  
3 auctions under DSP V. As explained previously, PPL Electric has successfully procured  
4 Fixed-Price and Spot Market Full Requirements supply. Furthermore, the Commission  
5 has approved the auction results of all six auctions without exception. See PPL Electric  
6 Exhibit AC-1, which details the summary auction results for each of the six auctions and  
7 commensurate Commission Secretarial Letters approving the results. These results show  
8 that there is substantial competition to supply the Full Requirements and Block supply  
9 products.

10

11 **Q. Please provide a summary of PPL Electric's PTC throughout DSP V.**

12 A. Please see PPL Electric Exhibit AC-2 for a complete history of PPL Electric's  
13 Residential and Small C&I PTCs from 2010 to present.

14

15 **B. PROCUREMENT AND RATE DESIGN**

16 **Q. Is the Company proposing to modify the procurement approach under DSP VI?**

17 A. The Company is proposing to modify the procurement approach under DSP VI. The  
18 DSP VI Program will utilize 12- and 24-month Fixed-Price Full Requirements contracts  
19 to meet the electricity demand of Residential and Small C&I Default Service customers,  
20 eliminating the 6-month contract terms except for the Transition Period. The Company  
21 proposes to continue to use Spot Market Full Requirements procured for 12-month terms  
22 for the Large C&I Customer Class. PPL Electric is also seeking to change the auction  
23 lead times from two months (April and October) to four and five months (February and

1 July), respectively. In addition, the DSP VI Program will reincorporate AECs into  
2 supplier obligations for the Full Requirements products. PPL Electric will also procure  
3 150 MW of Long-Term Block contract for a 10-year term for the Residential Customer  
4 Class. The Company's current 5-year Block supply product will serve as the contingency  
5 plan. The Block product will not procure AECs. In addition, the Company will procure  
6 up to 30,000 PA Solar AECs under a long-term 20-year contract. The Company will  
7 continue to hold an annual auction in July to procure its remaining AEC obligations.

8  
9 **Q. Please describe the rate schedules that comprise the Residential Customer Class.**

10 A. The Residential Customer Class is comprised of customers served under current PPL  
11 Electric Rate Schedules RS and RTS. This remains unchanged from the DSP V Program.

12  
13 **Q. Please describe the proposed procurement for the Residential Customer Class under**  
14 **DSP VI.**

15 A. Under the proposed DSP VI Program, PPL Electric will primarily utilize Fixed-Price Full  
16 Requirements contracts for Residential Customer Class Default Service supply. The first  
17 six months of the DSP VI Program contains overlapping supply procured in DSP V  
18 consisting of 40% of 12-month Fixed-Price Full Requirements contracts. In addition to  
19 the Full Requirements contracts, PPL Electric will also procure 150 MW of Long-Term  
20 Block contracts for 10-year terms. The Long-Term Block contracts will be for energy  
21 and capacity, but will not include AECs. The Company will procure up to 30,000 solar  
22 AECs through the Long-Term PA Solar AEC 20-year contracts. It is anticipated that the  
23 Long-Term PA Solar AECs will be used to partially meet the AEC obligations associated

1 with the Long-Term Block product. The Full Requirements supply will be obtained  
2 through semiannual auctions beginning in February 2025 and continuing through July  
3 2028. As further explained in the Direct Testimony of Mr. Cavicchi (PPL Electric  
4 Statement No. 2), the DSP VI Program's procurement schedule will procure a fixed  
5 percentage of its Default Service load on a semiannual basis through 12- and 24-month  
6 Fixed-Price Full Requirements contracts using a ladder or staggered approach so that  
7 all of the products are not procured at the same time. The Long-Term Block products  
8 will be procured through a competitive RFP process. As described later in my testimony,  
9 the Company proposes to reincorporate AECs into supplier obligations for the Full  
10 Requirements contracts. The Company will continue to have a process to procure AECs  
11 through an annual auction to obtain AECs needed during the Transition Period and to  
12 satisfy AEC requirements for the supply procured pursuant to the Long-Term Block  
13 products not otherwise satisfied by the Long-Term PA Solar AEC contracts.

14  
15 **Q. Why is the Company proposing to include 24-month Fixed-Price Full Requirements**  
16 **contracts as part of its Residential Default Service product mix?**

17 A. The product mix in DSP V has worked well. However, the Company has observed  
18 increased volatility in the energy markets, and in turn increased volatility in PPL  
19 Electric's PTC. Specifically, the Company experienced its Residential PTC increasing  
20 from 9.502 cents on December 1, 2021, to 14.612 cents on December 1, 2022. The 12-  
21 and 24-month contract mix is a straightforward procurement strategy similar to what peer  
22 EDCs in Pennsylvania include in their Default Service plans and is intended to achieve  
23 more price stability for customers.

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**Q. Why is the Company proposing to include a Long-Term Block product for 150 MW as part of its Residential Default Service product mix?**

A. PPL Electric has a responsibility to utilize short-term, long-term, and spot market contracts as part of its product mix.<sup>2</sup> The Company has a history of incorporating long-term products into its procurement mix, utilizing a 10-year 50 MW block product originally procured in 2011 under DSP I to meet its long-term product regulatory obligation through DSP IV. Under DSP IV, the 50 MW block product supplied approximately 5% of the overall customer usage, relative to the total amount of default service load supplied. The 50 MW block product in place throughout DSP IV concluded on May 31, 2021.

In DSP V, PPL Electric replaced the previous 50 MW block energy contract with 100 MWs of block energy contracts. The Company currently has 5-year contracts, with 50 MWs procured in the April 2021 auction, effective June 1, 2021, and the remaining 50 MW procured in the October 2021 auction, effective December 1, 2021. These contracts expire May 31, 2026, and November 30, 2026, respectively.

PPL Electric Exhibit AC-3 provides a summary of block energy contracts in effect (by MW) for the DSP I through DSP V periods to-date, and the respective load share block energy provided to overall default service supply for the Residential Customer Class. Utilizing the average load statistics, 100 MW block contracts have supplied approximately 10% of the Residential Customer Class Default Service load.

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<sup>2</sup> See 66 Pa. C.S. §§ 2807(e)(3.1), (3.2), and (3.4).

1           In DSP VI, PPL Electric is proposing to replace the 100 MW of block energy  
2 contracts with a 10-year Long-Term Block contract for 150 MW, or approximately 15%  
3 of the Residential Customer Default Service load. The Long-Term Block product is to be  
4 procured in an October 2025 auction, effective June 1, 2026. The Company is holding a  
5 stand-alone auction for the Long-Term Block product given its unique needs with respect  
6 to the timing of the auction and time to delivery. The Long-Term Block contracts will  
7 expire May 31, 2036.

8           The Long-Term Block product is intended to satisfy several of PPL Electric's  
9 objectives. As mentioned earlier, the Company desires to provide a more stable PTC,  
10 which the Long-Term Block product will support. Additionally, the Company shares the  
11 concerns being raised by PJM about future resource adequacy.<sup>3</sup> One of the goals of  
12 default service is to provide adequate and reliable service. Having sufficient and reliable  
13 generation supply is critical to EDCs in meeting their default service obligations. PPL  
14 Electric understands that ultimately PJM is responsible for ensuring resource adequacy;  
15 however, the Company believes that having a 10-year Long-Term Block product in its  
16 Default Service procurement mix can also help support generation supply adequacy.

17           As explained in greater detail in Mr. Cavicchi's testimony, a 15% load share over  
18 a 10-year period provides a reasonable amount of long-term energy supply, tempering

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<sup>3</sup> See, e.g., *Testimony of Frederick S. Bresler III, Sr. Vice President – Market Service, PJM Interconnection*, U.S. House of Representatives Subcommittee on Energy, Climate & Grid Security (Sept. 28, 2023), <https://www.pjm.com/-/media/library/reports-notices/testimony/2023/20230928-testimony-bresler-us-house-energy-commerce.ashx>; *Energy Transition in PJM: Resource Retirements, Replacements & Risks*, PJM Interconnection LLC (Feb. 24, 2023), <https://www.pjm.com/-/media/library/reports-notices/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx>.

1 wholesale market price volatility without losing the market reflectivity realized through  
2 shorter-term contracts.

3  
4 **Q. What is the difference between the Long-Term Block product and the current block  
5 product?**

6 A. In addition to extending the term from 5 years to 10 years, the Long-Term Block contract  
7 stipulates that the supplier must provide capacity. The Long-Term Block product is  
8 required to clear the PJM's Reliability Pricing Model ("RPM") capacity auction for the  
9 delivery year and must be associated with a generating unit in the PJM Mid-Atlantic Area  
10 Council region ("MAAC"). As is the case with the current Block product, the Long-  
11 Term Block product will not include AECs. I discuss in greater detail the Company's  
12 proposed procurement of AECs required for the Long-Term Block product in Section C  
13 of this testimony.

14  
15 **Q. Why does the Company propose to include a capacity requirement in the Long-  
16 Term Block product?**

17 A. Requiring capacity in addition to energy in the Long-Term Block product supports the  
18 Company's goals of achieving price stability and supporting resource adequacy. The  
19 Long-Term Block product will secure a portion of the Company's capacity obligation for  
20 10 years, which will guard against price fluctuations in the PJM capacity markets.  
21 Additionally, the generating unit is required to be in the MAAC region which will  
22 support nearby generation. Having local generation operating is important to supporting  
23 resource adequacy for PPL Electric customers.

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**Q. Please describe the rate schedules that make up the Small C&I Customer Class.**

A. The Small C&I Customer Class is comprised of customers served under current PPL Electric Rate Schedules GS-1, GS-3 (under 100 kW), LP-4 (under 100 kW), GH-2, BL, SA, SM, SHS, SLE, SE, TS, and standby service for qualifying facilities. This is unchanged from the Small C&I Customer Class definition currently in effect for DSP V. The classification of individual commercial and industrial customers on Rate Schedules GS-3 and LP-4 as either Small C&I or Large C&I will be updated effective June 1, 2025, based upon demand data for each customer’s peak load contribution assigned for the 2024-2025 PJM Planning Year. This classification will be updated annually thereafter on June 1 of each year based upon the updated peak load contribution for each successive PJM Planning Year.

**Q. Please describe the proposed procurement for the Small C&I Customer Class.**

A. PPL Electric will acquire 100% of the Small C&I Customer Class Default Service supply through a series of Fixed-Price Full Requirements contracts. The first six months of DSP VI contain overlapping supply procured in DSP V consisting of 25% of 12-month Full Requirements contracts. No Block supply is being proposed for the Small C&I Customer Class, consistent with prior Default Service programs. The Full Requirements supply will be obtained through semiannual solicitations beginning in February 2025 and continuing through July 2028. As further explained in the Direct Testimony of Mr. Cavicchi (PPL Electric Statement No. 2), the DSP VI Program’s procurement schedule will procure a fixed percentage of its Default Service load on a semiannual basis through

1 12- and 24-month Fixed-Price Full Requirements contracts using a laddered or staggered  
2 approach so that all of the products are not procured at the same time.

3  
4 **Q. Why did PPL Electric not propose to procure Long-Term Block contracts as part of**  
5 **the product mix for the Small C&I Customer Class?**

6 A. There are two primary reasons PPL Electric has chosen not to include Long-Term Block  
7 contracts as a component of the Small C&I product mix: (1) prior success of the Small  
8 C&I product mix without block energy contracts; and (2) concerns that the Small C&I  
9 Default Service load is too small to be conducive to including block contracts. The  
10 Company is proposing a different product mix for Small C&I customers because a larger  
11 percentage of Small C&I customers choose to shop for their electricity, resulting in low  
12 Small C&I Default Service load. As of January 31, 2024, approximately 50% of Small  
13 C&I customers, or 80% of Small C&I load, is shopping.<sup>4</sup> Including Long-Term Block  
14 contracts could in fact result in an overreliance on the block contracts with so little  
15 Default Service load. This inclusion could result in an even less market-reflective  
16 customer rate. The Company sees no reason to change this successful model and include  
17 block contracts in the Small C&I procurement mix.

18  

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<sup>4</sup> Statistics reflect customer billed sales, shopping load and counts versus non-shopping load and counts through January 2024.

1 **Q. How will the costs to provide Default Service to the Residential and Small C&I**  
2 **Customer Classes be recovered?**

3 A. These costs will be recovered by the GSC-1, which will be discussed in greater detail in  
4 Ms. Johnson's testimony (PPL Electric Statement No. 4). The GSC-1 will be separately  
5 calculated for the Residential Customer Class and Small C&I Customer Class. This  
6 process remains unchanged from DSP V.

7  
8 **Q. Please describe the rate schedules that make up the Large C&I Customer Class.**

9 A. The Large C&I Customer Class includes customers served under current PPL Electric  
10 Rate Schedules GS-3 (over 100 kW), LP-4 (over 100 kW), LP-5, LP-6, LPEP, and  
11 standby service for qualifying facilities. This is the same customer classification  
12 currently in effect for DSP V.

13  
14 **Q. Please describe the proposed procurement for the Large C&I Customer Class.**

15 A. For the Large C&I Customer Class, the Company proposes to continue to obtain Default  
16 Service energy supply on a real-time hourly basis through the PJM spot market.  
17 Specifically, PPL Electric proposes to issue a single annual solicitation to obtain  
18 competitive offers from suppliers to provide the Default Service PJM wholesale market  
19 supply to the Large C&I Customer Class through Spot Market Full Requirements  
20 contracts. These annual procurements will be held in February 2025, February 2026,  
21 February 2027, and February 2028 for the subsequent PJM planning periods effective  
22 June 1. As explained in the direct testimony of Mr. Cavicchi (PPL Electric Statement  
23 No. 2), this form of contract has been used for the Large C&I Customer Class under

1 previous procurement plans and has been successful in providing service to this Customer  
2 Class, which is overwhelmingly (roughly 97%) comprised of customers who are  
3 shopping. AECs will be provided by wholesale suppliers pursuant to their contracts, as  
4 will be explained later. Apart from this sole change, the Large C&I customer class  
5 Default Service supply is unchanged from the DSP V Program.

6  
7 **Q. Please explain how the costs to provide Default Service to the Large C&I Customer**  
8 **Class will be recovered.**

9 A. The costs incurred by PPL Electric to provide Default Service to the Large C&I  
10 Customer Class will be recovered through the GSC-2. This is explained in greater detail  
11 in Ms. Johnson’s testimony (PPL Electric Statement No. 4).

12  
13 **Q. Please explain how the 100 kW demand split for the GS-3 and LP-4 Rate Schedules**  
14 **will be implemented under the DSP VI Plan.**

15 A. The 100 kW demand split will continue the process established in DSP V. The split will  
16 be based upon the installed capacity customer tag (“ICAP tag”)<sup>5</sup> for the upcoming period.  
17 This demand split redetermination will only impact the GS-3 and LP-4 rate schedules.  
18 The first demand split redetermination will occur beginning June 1, 2025, based upon  
19 each customer’s ICAP tag for the 2025/26 period. Each subsequent demand split  
20 redetermination will occur beginning June 1, based upon the June to May ICAP tag for  
21 that period.

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<sup>5</sup> ICAP tags, also referred to as peak load contribution or PLC tags, are a cost recovery method for capacity costs whereby PJM applies capacity rates to Load Serving Entities based upon the total customer PLC tags assigned to the Load Serving Entity.

1           Additionally, each 100 kW demand split redetermination will be implemented at a  
2 customer level based upon each customer's first bill cycle change on or after June 1 for  
3 each change. This confirms that any customer whose ICAP tag results in a change from  
4 Small C&I rate to Large C&I rate, or vice versa, does not result in prorated billing,  
5 customer confusion, or other similar billing complications.

6  
7 **Q. Does PPL Electric expect the number of customers impacted by the redetermination**  
8 **to be high?**

9 A. No, the Company expects both the total number of customers impacted and the net  
10 switches between Small C&I – GS3 and Large C&I – LP4 rate groups to be low. During  
11 the DSP V 100 kW redetermination to-date, a total of 768 Small C&I and Large C&I  
12 customers were adjusted. Of those impacted, 437 moved from Small C&I to Large C&I  
13 and 331 moved from Large C&I to Small C&I. The net impact between customer groups  
14 was 106 customers net moving from Small C&I to Large C&I. PPL Electric expects  
15 similar results in future redeterminations.

16  
17 **Q. How will wholesale suppliers be notified of the impact of customer redetermination?**

18 A. PPL Electric will evaluate the customer impacts, both gross and net redeterminations, and  
19 communicate the impact to wholesale suppliers through the data posted to its auction  
20 website. This location has been used to provide such customer redetermination  
21 information during DSP V and continues to be the most transparent location to present  
22 such information. Importantly, the information provided to suppliers will not be  
23 customer-specific data, but summary information that explains the total moves from GS-3

1 to LP-4, LP-4 to GS-3, and the net changes. Customer information will continue to  
2 remain anonymous and in aggregate form, as is all data provided to wholesale suppliers.

3  
4 **Q. How will the Company communicate with customers impacted by the annual**  
5 **redetermination of the 100 kW demand split?**

6 A. Any GS-3 and LP-4 customer impacted by the 100 kW demand split redetermination will  
7 receive notification from PPL Electric at least one billing cycle prior to the  
8 redetermination effective date. This notification will inform them of the change and their  
9 new rate. Notifications will be sent to both shopping and non-shopping customers;  
10 however, the shopping customer notification will explain that the rate impact (moving  
11 from fixed rate to spot market rate, or vice-versa) only takes effect upon their return to  
12 default service – there is no impact to customers while they shop. GS-3 and LP-4  
13 customers not re-assigned will not be notified.

14  
15 **Q. Is the Company proposing to change when it holds its auctions?**

16 A. Yes. In DSP V, the supply auctions are held in April and October each year. In  
17 preparing for DSP VI, the Company analyzed its procurement strategy to determine if  
18 any improvements can be made. PPL Electric discovered that by changing the timing of  
19 the auctions it can potentially achieve lower supply prices for customers. Specifically,  
20 the Company is proposing to hold auctions in February and July of each year, which  
21 represents 4 and 5 months, respectively, prior to delivery date.

22

1 **Q. How did PPL Electric analyze the best time to conduct its auctions?**

2 A. The Company relied on historical data regarding past supply prices and the time between  
3 the auction and delivery date. The data was analyzed for a period between 2015 and  
4 2023. This analysis revealed that certain combinations of auction months and lead times  
5 produce better supply prices.

6

7 **Q. What did the Company's analysis show with respect to the timing of auctions?**

8 A. The first conclusion is that having a lead time from auction to delivery between 4 to 6  
9 months has produced lower prices. Second, auctions that are held in February and July  
10 tend to have the most favorable results. The table in Figure 1, below, shows results of the  
11 analysis, and that auctions held in February had an average on-peak price of  
12 \$40.04/MWh, and July auctions have an average on-peak price of \$44.34/MWh. This is  
13 compared to the average on-peak price of April and October auctions being \$45.24/MWh  
14 and \$45.91/MWh, respectively. The table in Figure 2, below, shows the average on-peak  
15 price of having auctions in February and July of \$42.19/MWh versus \$45.57/MWh of  
16 having auctions in April and October.

17

1

**Figure 1**

Month	Average
1	\$ 41.96
2	\$ 40.04
3	\$ 42.91
4	\$ 45.24
5	\$ 46.99
6	\$ 45.81
7	\$ 44.34
8	\$ 45.61
9	\$ 46.44
10	\$ 45.91
11	\$ 45.28
12	\$ 43.23
<b>Average</b>	<b>\$ 44.52</b>

2

3

**Figure 2**

	Month	Avg \$/MWh 24-Month Strip	Deviation vs. Current DSP Schedule	Avg Deviation
Bi-annual Auctions	4, 10	\$ 45.57	0.00%	-3.32%
	5, 11	\$ 46.13	1.21%	
	6, 12	\$ 44.52	-2.37%	
	7, 1	\$ 43.15	-5.62%	
	8, 2	\$ 42.82	-6.42%	
	9, 3	\$ 44.68	-2.01%	
	2, 7	\$ 42.19	-8.02%	

4

5

6 **Q. What will changing the auction months mean for customers?**

7 A. Based on this historic data, customers would have saved approximately \$55 million if  
8 PPL Electric had held its auctions in February and July. I should be clear that past

1 performance does not guarantee future results. However, the Company believes this  
2 analysis supports changing the auction to attempt to realize lower prices for customers.

3  
4 **Q. Will changing the auction months have any negative impacts on suppliers?**

5 A. None are anticipated. The forward market prices at these times are historically lower.  
6 The results of the analysis are driven by the forward market curve at the times of the  
7 assumed auctions. Additionally, the Company plans on scheduling its auctions on weeks  
8 that it is not competing with other solicitations. This timing will increase the likelihood  
9 of supplier participation, which should ultimately result in more competitive prices.

10  
11 **C. AEPS PROCUREMENT**

12 **Q. Does the Company propose to procure AECs under the DSP VI Program?**

13 A. Yes. The AEPS Act and the Commission's implementing regulations require EDCs to  
14 obtain AECs in an amount equal to certain percentages of electric energy sold to retail  
15 customers in this Commonwealth.<sup>6</sup> The DSP VI Program will procure the AECs  
16 necessary to meet PPL Electric's obligations with respect to its Default Service customers  
17 under the AEPS Act.

18  
19 **Q. Please explain how AECs are procured under the DSP V Program.**

20 A. Under the current DSP V Program, PPL Electric procures necessary AECs to meet its  
21 obligation under the AEPS Act through AEC-only contracts. AEC-only auctions were  
22 established as a pilot program pursuant to the terms of the partial settlement of the DSP V

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<sup>6</sup> See 52 Pa. § Code 54.182.

1 proceeding. The Company conducts biannual auctions to procure Tier I Solar, Tier I  
2 Non-solar, and Tier II AECs instead of relying upon wholesale supplier Full  
3 Requirements contracts. The contracts procure a specified number of AECs and are not  
4 “load-following” procurements. AEC auctions occur each July and January, employing a  
5 “forecast and reconciliation” process, whereby PPL Electric forecasts anticipated AEC  
6 needs for the June to November or December to May period, whichever is closest to the  
7 auction, and reconciles for the June to November or December to May period just exited.

8  
9 **Q. Does the Company have any reporting commitment with respect to its AEC-only**  
10 **auctions?**

11 A. Yes. The DSP V partial settlement contains the following requirement:

12 The Company will provide a summary report on each AEC Auction conducted  
13 throughout DSP V in its next DSP filing. This report will include forecast and  
14 actual AECs procured by customer group and Tier type; average pricing  
15 information by Tier type, customer group by period; number of customers by  
16 customer group; and reconciliation details by customer group.  
17

18 **Q. Has the Company prepared a summary report on each AEC Auction under DSP V**  
19 **to date?**

20 A. Yes. Through January 2024, there have been five AEC auctions. A copy of the summary  
21 report is provided as PPL Electric Exhibit AC-4.  
22

23 **Q. Has the Company undertaken any further analysis of the use of a separate AEC-**  
24 **only auction process?**

25 A. Yes. In addition to the information provided in the summary report, PPL Electric has  
26 compared the cost of its default procurement to the reported cost of procurements

1 undertaken by other EDCs. Specifically, the Company compared the prices of PPL  
2 Electric's full requirements procurements to the prices of the full requirements  
3 procurements of Duquesne Light Company ("Duquesne") and PECO Energy Company  
4 ("PECO"). Note that the procurement timing, load profile, and pricing location are  
5 different for each EDC, and the differences of the auction prices may not be solely  
6 attributed to the cost of AECs. The results of this analysis are presented in PPL Electric  
7 Exhibit AC-5.

8  
9 **Q. Please provide further details regarding the analysis.**

10 A. The analysis looked at default supply auction results for the Spring and Fall from 2017  
11 through 2023. Auctions held from 2017 through 2020 included procurement of AECs as  
12 part of the Full Requirements contracts for all of the utilities. Beginning in 2021, PPL  
13 Electric's Full Requirements auctions did not include AECs, which were separately  
14 procured by auction. During the period reviewed, PPL Electric procured Full  
15 Requirements supply for 6-month and 12-month terms for both Residential and Small  
16 Commercial & Industrial customers. The other peer group companies procured supply  
17 for these groups for 12-month and 24-month terms. Therefore, the only comparisons that  
18 could be made were for 12-month contracts.

19  
20 **Q. Did the Company compute the cost of its separate AEC procurements?**

21 A. Yes. The total cost of AECs procured for the 2022-2023 compliance period was  
22 approximately \$4.00 per MWh.

23

1 **Q. What has the Company concluded from this analysis?**

2 A. Based upon the analysis, the Company has concluded that removing AECs from the Full  
3 Requirements procurement and holding separate auctions for AECs has not produced  
4 material savings in the total cost of supply for 12-month Full Requirements contracts.  
5 PPL Electric Exhibit AC-5 shows a comparison of the wholesale auction results for PPL  
6 Electric, PECO and Duquesne, in which the DSP V auctions for 12-month Full  
7 Requirements resulted in average prices of \$76.79/MWh, \$72.22/MWh, and  
8 \$72.21/MWh, respectively. In auctions where PPL Electric included AECs in Full  
9 Requirements contracts, the results were on par, or better, than peer EDCs. The removal  
10 of AEC procurement in the Full Requirements auctions did not show significant  
11 improvement versus the Company's peers who still include AECs in their full  
12 requirements contracts.

13  
14 **Q. What is the Company's proposal with respect to AEC procurements for DSP VI?**

15 A. Based upon the foregoing analysis, the Company proposes to reincorporate AECs into  
16 supplier obligations for its proposed 12-month and 24-month Fixed-Price Full  
17 Requirements and the annual Spot Market Full Requirements contracts. The Company  
18 anticipated in the DSP V proceeding being able to achieve lower costs for AECs by  
19 having a separate auction. The savings did not materialize in DSP V, and there is no  
20 benefit to PPL Electric continuing to have separate auctions for the bulk of its AEC  
21 obligations. In fact, the Company is incurring additional auction and administrative costs  
22 by holding additional AEC auctions. DSP VI will return AEC procurement to the

1 approach used by PPL Electric prior to DSP V and will be consistent with the approach  
2 used by peer electric utilities in Pennsylvania.

3 The Company does not propose to include AECs as part of the supply  
4 requirements under the Long-Term Block product. The Company is concerned that  
5 including an AEC requirement in a 10-year product could discourage participation in the  
6 auction. To satisfy the AEC obligations for the Long-Term Block product, the Company  
7 is proposing to issue a 20-year RFP for up to 30,000 PA Solar AECs to satisfy a portion  
8 of its AEC obligation for the Long-Term Block product. The remainder of the needed  
9 AEC's for the Long-Term Block product will be obtained during annual AEC auctions  
10 held each July.

11  
12 **Q. Please describe the Company's proposed 20-year RFP for up to 30,000 PA Solar**  
13 **AECs.**

14 A. The Company will procure the Long-Term PA Solar AECs through a staggered approach  
15 of two auctions, each procuring 15,000 AECs. The AECs will be acquired from solar  
16 generation located in Pennsylvania. This will enable the AECs to satisfy the  
17 requirements of the AEPS Act for Tier I – Solar and Tier I – Non-Solar. Each auction  
18 will seek five tranches of 3,000 AECs each.

19  
20 **Q. Why did the Company decide to procure 30,000 PA Solar AECs?**

21 A. The Company will procure up to 30,000 PA Solar AECs to satisfy a portion of the AECs  
22 needed for the Long-Term Block product. It is anticipated that the Long-Term Block  
23 product will annually require approximately 7,000 Tier I Solar AECs, 100,000 Tier I

1 Non-Solar AECs, and 103,000 Tier II AECs. The Long-Term PA Solar AEC product  
2 will provide 30,000 PA Solar AECs each year, which will likely be used to satisfy the  
3 Long-Term Block's Tier I Solar, and a portion of the Tier I Non-Solar requirements. The  
4 remainder of the Tier I Non-Solar and Tier II AECs will be acquired in annual auctions  
5 held each July. The procurement of this amount of AECs over a 20-year term will  
6 provide price stability for customers as well as mitigate potential price increases if supply  
7 availability diminishes from market participants attempting to procure larger quantities of  
8 AECs. The Long-Term PA Solar AECs will also support the growth of solar in the  
9 Commonwealth, as 30,000 AECs requires approximately 20 MW of solar generation.  
10

11 **Q. Does the Company have any flexibility in how it uses the 30,000 PA Solar AECs?**

12 A. Yes. The Fixed Price Full Requirements SMA allows the Company to provide some of  
13 the AECs that would otherwise be the supplier's obligation. Each supplier's obligation is  
14 then reduced on a pro rata basis. This would allow PPL Electric to use some or all of the  
15 30,000 PA Solar AECs acquired from the Long-Term PA Solar AEC product for the  
16 Fixed Price Full Requirements AEC requirement. The Company is not anticipating  
17 having to pursue this option, and it is only leaving the option open in case there is a  
18 pricing scenario between the various AEC Tiers, and the price of the Long-Term PA  
19 Solar AEC that would make it advantageous to the customer to deploy the AECs in this  
20 manner.  
21

1 **Q. Are there any transition matters that need to be addressed?**

2 A. Yes, there are three transition matters. The first is the need to procure AECs for several  
3 12-month Full Requirements contracts for Residential and Small C&I customers that will  
4 be procured in the final auction of DSP V and that will carry over 6 months into the DSP  
5 VI period (June 1, 2025 through November 30, 2025). The second is the need to procure  
6 AECs for the two existing 5-year block contracts that were procured in DSP V and will  
7 carry over to June and November 2026, respectively (June 1, 2025 through November 30,  
8 2026). The third transition matter is to reconcile the quantity of AECs needed through  
9 the end of the DSP V period to the amount of AECs actually procured for that period  
10 (June 1, 2024 through May 31, 2025).

11  
12 **Q. How does the Company propose to procure necessary AECs for these three**  
13 **transition matters?**

14 A. As mentioned previously, PPL Electric will need to hold annual AEC auctions in July for  
15 DSP VI because the Long-Term PA Solar AEC product will not produce enough AECs to  
16 satisfy the requirements of the Long-Term Block product. During the July 2026 AEC  
17 auction, the Company will procure additional AECs to satisfy the remaining DSP V  
18 obligations including the Full Requirements contract for the 6 month carryover period,  
19 and the remaining terms of the 5 year Block product expiring May 31, 2026 and all but  
20 the final 6 months of the block contract expiring November 30, 2026, which will be  
21 satisfied by the Long-Term PA Solar AEC product and/or the July 2027 AEC auction.  
22 When the DSP V requirements are satisfied the Company will only procure AECs needed  
23 for DSP VI during its annual AEC auctions.

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**Q. Please explain how the Company will determine the vintage of AECs that suppliers may use to meet their contractual obligations.**

A. PPL Electric’s intention is to grant suppliers the greatest AEC vintage flexibility to improve competition and pricing. The Company must also ensure, however, that all AECs can be used for compliance with the AEPS Act, in that no vintages can be accepted beyond their useful life. To comply with AEPS obligations, EDCs are able to use AECs from the compliance year plus two years prior.<sup>7</sup> To ensure both parameters are met – maximum vintage and usefulness – PPL Electric will determine the maximum vintage of AECs that can be used for the period in which AECs are being purchased and declare the vintage requirements prior to auction at the time the AEC quantities are announced.

**Q. Does the Company anticipate banking AECs under the DSP VI Program?**

A. Not to any significant degree. Because the quantity of AECs to be provided by wholesales suppliers under the Full Requirements contracts will be defined by the load they are required to provide, the quantities of AECs procured through those contracts will be appropriately sized to limit the potential for banking. Similarly, the quantities of AECs needed to meet the requirements of the Long-Term Block product will be known in advance, subject to any later statutory changes. As mentioned previously, the Long-Term PA Solar AEC product will not produce enough AECs to satisfy the entire Long-Term Block requirements which will limit any chance of having to bank AECs.

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<sup>7</sup> For example - for the 2025/26 AEPS compliance period ending May 31, 2026, AECs may have a vintage from 2023/24, 2024/25, or 2025/26. AECs created prior to the 2023/24 period are not able to be used for compliance in 2025/26.

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**Q. Please explain how the costs to procure AECs will be recovered.**

A. The costs incurred to procure the AECs will be recovered through the GSC-1 and GSC-2, based upon the AECs required to meet the AEPS obligations per customer group. With respect to separately-procured AECs, costs will be divided among the three Customer Classes – Residential, Small C&I, and Large C&I – based upon the percentage of load supplied during the compliance period. Outside of the Transition Period, separately acquired AECs should only be assigned to the Residential Customer Class.

**D. PRUDENT MIX OF SUPPLIES**

**Q. Does the DSP VI Program comply with Act 129 by providing for the procurement of Default Service supply through a prudent mix of spot, short-term, and long-term power supplies?**

A. Yes. The proposed DSP VI Program will acquire a fixed percentage of the Company’s Default Service load on a semiannual basis through short and medium-term 12- and 24-month Full Requirements contracts. The Company proposes to obtain Default Service supply with energy priced to the PJM real-time spot market for the Large C&I Customer Class. Additionally, the Company is seeking to procure 150 MW of Long-Term Block energy and capacity and up to 30,000 Long-Term PA Solar AECs for the Residential Class through long-term, 10-year and 20-year contracts, respectively. As further explained in the Direct Testimony of Mr. Cavicchi (PPL Electric Statement No. 2), the proposed product mixture will continue to promote the development of retail competition while protecting against various risks that must be addressed by any Default Service plan.

1           Finally, it should be noted that in the *DSP V Order*, the Commission found that  
2           the “Default Service Supply Procurement Plan, for the DSP V Program Period, pursuant  
3           to the Petition, as modified by the terms of the Partial Settlement, consists of a prudent  
4           mix of spot market purchases, short-term contracts, and long-term purchase contracts  
5           designed to ensure adequate and reliable service at the least cost to customers over  
6           time.”<sup>8</sup> As explained above, the DSP VI Program will build off the procurement  
7           approach taken in the Commission-approved DSP V Program to better serve customers.

8  
9   **IV.    DSP VI PROGRAM RFP AND SMA**

10   **A.     THE RFP PROCESS**

11   **Q.     How will PPL Electric implement the DSP VI Program?**

12   A.     PPL Electric will implement the DSP VI Program by holding solicitations pursuant to a  
13         series of RFPs to obtain the Default Service products from competitive wholesale  
14         generation suppliers. Separate bids will be solicited for the Residential, Small C&I and  
15         Large C&I Customer Classes.

16  
17   **Q.     Is the implementation process for solicitations under the DSP VI Program similar to**  
18         **the DSP V Program?**

19   A.     Yes. The DSP VI Default Service Program is similar to the DSP V Program with the  
20         exceptions being a RFP for the Long-Term Block product and Long-Term PA Solar AEC  
21         contracts, and the return of the AEC obligation back to the suppliers for Full  
22         Requirements contracts. PPL Electric based the *pro forma* RFPs on the documents

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<sup>8</sup> See *DSP V Order*, p. 37

1 approved by the Commission in the DSP V Program proceeding. The *pro forma* RFPs  
2 are provided as Attachments C and E to the Company's Petition.

3  
4 **Q. Are the DSP VI Program RFP Rules similar to the DSP V Program?**

5 A. Yes. The DSP VI Program's RFP Rules are similar to the rules approved by the  
6 Commission in the DSP V Program. Updates to the RFP Rules include changes such as:

- 7 • Creating new RFP documents, based on the Block DSP V Program RFP Rules, to  
8 accommodate a Long-Term Block procurement, a Long-Term PA Solar AEC  
9 procurement, and a contingency Block procurement;
- 10 • Updating auction dates;
- 11 • Revising the product details;
- 12 • Removing the hard copy Letter of Credit form;
- 13 • Clarifying edits related to requirements and administrative processes under the RFP;  
14 and
- 15 • Incorporating the ISDA 2018 U.S. Resolution Stay Protocol ("Protocol") as a  
16 supplement to the various SMAs.

17  
18 **Q. Please summarize the solicitation and approval process.**

19 A. Separate bids will be solicited for the Residential, Small C&I, and Large C&I Customer  
20 Classes. The proposed solicitation schedule is provided in the Testimony of Mr.  
21 Cavicchi (PPL Electric Statement No. 2) in PPL Electric Exhibit Nos. JC-2 and JC-3.  
22 The results for each solicitation will be presented to the Commission within one business  
23 day of the bid proposal due date for that solicitation. At that time, the Commission will

1 have one business day to review those results and render a final decision. The  
2 Commission may either accept or reject all of the winning bids presented for a customer  
3 group (or for an AEC-only auction) in their entirety. After receiving Commission  
4 approval of the solicitation results, PPL Electric will then execute transaction  
5 confirmations with the winning suppliers. This is the same solicitation and approval  
6 procedure used in the DSP V Program.

7  
8 **Q. Please summarize the bidder qualifications in the RFP.**

9 A. The bidder qualifications are straightforward and primarily require that the supplier be a  
10 member of PJM in good standing and that they meet certain fundamental credit-  
11 worthiness criteria. More specifically, the qualifications consist of:

- 12 • Submitting an Expression of Interest Form;
- 13 • Executing a Confidentiality Agreement;
- 14 • Certifying the supplier meets the PJM membership and Federal Energy Regulatory  
15 Commission (“FERC”) authorization requirements;
- 16 • Demonstrating that the supplier’s, or supplier’s guarantor’s, unsecured senior long-  
17 term debt rating is available from Standard & Poor’s, Fitch Ratings, or Moody’s  
18 Investor Services;
- 19 • Submitting a Credit Application and associated financials; and
- 20 • Submitting an executed copy of the Binding Bid Agreement.

21 These bidder qualifications are the same in the DSP VI Program as they were in prior  
22 DSP programs.

1           Also, an individual bidder for Residential and Small C&I contracts is subject to  
2 two load cap limitations. First, a bidder cannot be awarded more than 85% of the  
3 contracts offered in a single solicitation, by customer class (“Solicitation Cap”). Second,  
4 a wholesale supplier cannot supply more than 50% of the Default Service load for either  
5 the Residential or Small C&I Customer Classes at any time (“Load Cap”).<sup>9</sup> This  
6 limitation was approved in the DSP IV and DSP V Programs and PPL Electric is  
7 proposing to continue it in the DSP VI Program. PPL Electric believes that continuing  
8 this limitation in the DSP VI Program will continue to encourage development of the  
9 competitive wholesale market by ensuring supplier diversity, present opportunities for  
10 multiple suppliers, and provide protection against the default of a single supplier.

11           It is important to note that the Long-Term Block contract will not be used in  
12 calculating a supplier’s Load Cap.

13  
14 **Q. How much supply is PPL Electric procuring in each solicitation?**

15 A. PPL Electric proposes to conduct semi-annual auctions occurring each February and July.  
16 As explained previously and in the testimony of Mr. Cavicchi (PPL Electric Statement  
17 No. 2), the Company utilizes laddered supply contracts with varying terms to reduce  
18 abrupt price changes and limit the risk inherent in purchasing 100% of supply at any one  
19 point in time. As conducted under DSP V, and as proposed for DSP VI, PPL Electric  
20 will procure 30% of Residential customer supply, exclusive of Long-Term Block supply,

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<sup>9</sup> The 50% Load Cap was not applied to the Large C&I Customers Class in DSP V and is not proposed for DSP VI. The small number of tranches solicited for this Customer Class (*i.e.*, 10, once per year) would indicate that a further Load Cap restriction may result in higher rates, as the Company could be required to reject lower bids.

1 in each solicitation – comprised of 20% 24-month contracts and 10% 12-month contracts.  
2 Additionally, the Company is proposing a solicitation of 150 MW of Long-Term Block  
3 supply through a 10-year Long-Term Block contract, in three 50 MW tranches, and up to  
4 30,000 PA Solar AECs through a 20-year Long-Term PA Solar AEC contract for the  
5 Residential customer group. PPL Electric will also continue its practice of procuring  
6 30% of supply for Small C&I customers each auction, comprised of 20% 24-month  
7 contracts and 10% 12-month contracts. For the Large C&I Customer Class, PPL Electric  
8 plans to procure 100% of default service load through PJM wholesale market priced Full  
9 Requirements contracts, once per year, in the February solicitations.

10  
11 **Q. How are the Residential and Small C&I Full Requirements tranche sizes**  
12 **determined?**

13 A. For both the Residential and Small C&I Customer Classes, each Full Requirements  
14 tranche will be a fixed percentage of the Customer Class’s Default Service load, net of  
15 the Long-Term Block contracted supply with that percentage estimated to produce  
16 approximately 75 MW of peak load per tranche for Residential, and 100 MW of peak  
17 load per tranche for Small C&I based on current PPL Electric forecasts and each  
18 Customer Class’s 2024-2025 projected peak load contributions with PJM. As detailed in  
19 the Full Requirements RFP as well as the accompanying Full Requirements SMA,  
20 Residential tranche size will remain at 2.5% and Small C&I tranche size will remain at  
21 5%.

22

1 **Q. How is the Large C&I Spot Market tranche size determined?**

2 A. The Large C&I customer tranche size is 10%, or approximately 200 MW per tranche,  
3 based upon current PPL Electric forecasts and the Customer Class's 2024-2025 projected  
4 peak load contributions with PJM.

5  
6 **Q. What services will the winning bidder provide to PPL Electric?**

7 A. As explained in the Full Requirements RFP Rules and the Full Requirements SMA, each  
8 winning supplier must provide the products and services required by the Company to  
9 fulfill its obligations as Default Service provider. These products and services include  
10 energy, capacity, transmission (other than Non-market-based Transmission Services),  
11 ancillary services, transmission and distribution losses, congestion management costs,  
12 and such other services or products that are required to supply Default Service to PPL  
13 Electric's retail customers, including AECs. As a result, each supplier will become the  
14 load-serving entity in PJM for its share of PPL Electric's Default Service load. PPL  
15 Electric, however, will remain the Default Service provider for its retail customers.

16  
17 **Q. Will the selected suppliers be required to post performance assurance?**

18 A. PPL Electric proposes to continue the process employed in the DSP V Plan, requiring  
19 wholesale suppliers selected to serve any portion of PPL Electric's Default Service load  
20 to post performance assurance above the amount of any unsecured credit provided to the  
21 supplier based upon the results of the mark-to-market calculations set forth in the SMAs.  
22 Such assurance is required to enable PPL Electric to recover costs arising in the event of

1 a supplier default. The unsecured credit amounts are the same as those employed in DSP  
2 V.

3 PPL Electric is clarifying its calculation of tangible net worth to exclude  
4 prepayments. Prepayments represent future expenses that have been paid in advance but  
5 have not been utilized. By subtracting prepayments, the net worth calculation reflects  
6 only tangible assets that are currently available and in use, thereby providing a more  
7 accurate representation of an entity's financial position. This in turn protects customers  
8 by ensuring that suppliers are posting an appropriate amount of security.

9  
10 **B. THE SMA**

11 **Q. Is the DSP VI Program's Default Service SMA similar to that used in the DSP V**  
12 **Program?**

13 A. Yes. I note that the Commission-approved DSP III SMA was substantively changed  
14 following the Commission's Final Order in *Investigation of Pennsylvania's Retail*  
15 *Electricity Market: End State of Default Service*, Docket No. I-2011-2237952, 2013 Pa.  
16 PUC LEXIS 306; 303 P.U.R.4th 28 (February 15, 2013). The DSP VI SMAs for Full  
17 Requirements and Block contracts (for the contingency plan) are nearly identical to the  
18 DSP III, IV, and V SMAs. The only substantive changes to the Full Requirements SMA  
19 is to add back in the terms and conditions associated with AEPS obligations language.  
20 Each of the SMAs contain clarifications to the supplier secured credit provisions,  
21 including a clarification that prepayments are not to be included in defining Tangible Net  
22 Worth. In addition, the Company is proposing new SMAs to be used for the Long-Term  
23 Block and the Long-Term PA Solar AECs. While these SMAs are new to PPL Electric

1 they were developed using standard industry agreements for similar products. The  
2 proposed *pro forma* SMAs are provided as Attachments D and F to the Company's  
3 Petition.

4  
5 **Q. Did the Company make any changes to the SMAs to enable participants subject to**  
6 **the Protocol?**

7 A. Yes, the Company added an appendix to the SMAs, which incorporates the Protocol.  
8 This addition would enable market participants subject to the regulations issued by the  
9 Board of Governors of the Federal Reserve System (12 C.F.R. §§ 252.2, 252.81-88), the  
10 Federal Deposit Insurance Corporation (12 C.F.R. §§ 382.1-7) and the Office of the  
11 Comptroller of the Currency (12 C.F.R. §§ 47.1-8) ("U.S. Stay Regulations") to  
12 participate in the Company's Default Service solicitations. The U.S. Stay Regulations  
13 impose certain requirements on the terms of swaps, repurchase agreements and other  
14 qualified financial contracts for global systemically important banking organizations and  
15 their subsidiaries and affiliates ("GSIBs"). In the course of preparing the Company's  
16 DSP VI filing, the Company became aware that wholesale suppliers that are GSIBs have  
17 not been able to participate in PPL Electric's Default Service supply solicitations because  
18 the SMAs approved by the Commission for DSP V, which is a covered agreement under  
19 the U.S. Stay Regulations, does not incorporate the Protocol. Under the new appendix to  
20 the SMAs, both PPL Electric and the wholesale supplier will confirm adherence to the  
21 Protocol to ensure compliance with the U.S. Stay Regulations, which will allow  
22 additional parties to compete and bid in PPL Electric's Default Service procurements.

23

1 **Q. Is the Company proposing to establish a capacity proxy price (“CPP”) for the Full**  
2 **Requirements SMA?**

3 A. Yes. PPL Electric is proposing to establish a CPP and true-up mechanism for when PJM  
4 does not conduct a Base Residual Auction (“BRA”) under the RPM for capacity in time  
5 for bidders to incorporate a known capacity price into the formulation of their bids. If the  
6 capacity price is not known for the months of the delivery period for a product offered at  
7 least five business days prior to the bid date, bidders would use the CPP to formulate  
8 their bids. Under the Full Requirements SMA, winning bidders would be made whole for  
9 the difference between the CPP and the actual capacity price that bidders pay to PJM.

10

11 **Q. How would the CPP be calculated?**

12 A. The CPP would be calculated as the average of the most recent results under PJM’s RPM  
13 from the two most recent delivery years for which PJM has held a capacity auction.

14

15 **Q. How would winning bidders be made whole?**

16 A. Winning bidders would be made whole through a true-up mechanism under the Full  
17 Requirements SMA. For each month for which the capacity price was not known ahead  
18 of time, a true-up for a given day would be calculated as the difference between the  
19 actual capacity price and the CPP multiplied by the winning bidder’s daily capacity  
20 obligation. Thus, if the CPP is less than the actual capacity price, the winning bidder  
21 would receive an additional payment to ensure they are fully compensated for their  
22 capacity cost to serve the product. Conversely, if the CPP is greater than the actual

1 capacity price from PJM, the winning bidder's payment under the contract would be  
2 reduced based on the same calculation.

3  
4 **Q. Will this change support PPL Electric's Default Service auctions?**

5 A. Yes. The true-up mechanism provides certainty to bidders that they will be fully  
6 compensated for their costs to PJM for capacity. This certainty should encourage  
7 participation, leading to greater competition and better prices for customers.  
8 Additionally, other peer utilities with Default Service products with terms two years or  
9 longer include CPP provisions in their SMAs.

10  
11 **V. THIRD-PARTY MANAGER**

12 **Q. Will an independent party be used to administer the DSP VI Program**  
13 **procurements?**

14 A. The Commission's Default Service Policy Statement provides that the competitive bid  
15 solicitation process should be monitored by an independent evaluator to achieve a fair  
16 and transparent process for each solicitation. *See* 52 Pa. Code § 69.1807(8). The Default  
17 Service Policy Statement also states that the independent evaluator should have expertise  
18 in the analysis of wholesale energy markets, including methods of energy procurement.  
19 *See id.* Consistent with these requirements, PPL Electric has retained NERA as the  
20 independent third-party manager to administer each procurement, analyze the results of  
21 the solicitations for each customer class, select the supplier(s) that will provide services at  
22 the lowest cost and submit all necessary reports to the Commission.

1 **Q. Why was NERA retained as the third-party manager?**

2 A. NERA has successfully administered the CBP, the DSP I, DSP II, DSP III, DSP IV, and  
3 DSP V Program procurements and other utilities' Default Service supply procurement  
4 programs throughout the region. Based on this track record, the Company proposes to  
5 retain NERA to administer the DSP VI Program. NERA is the main point of contact with  
6 bidders, ensures the RFP Rules approved by the Commission are followed, ensures  
7 bidder qualifications are evaluated equitably and fairly, ensures bids are conforming,  
8 evaluates and determines the lowest-cost combination of bids based solely on price, and  
9 lastly, presents the results to the Commission.

10

11 **VI. RTO COMPLIANCE**

12 **Q. Will the DSP VI Program comply with RTO requirements?**

13 A. Yes. Section 54.185(d)(4) of the Commission's regulations requires Default Service  
14 plans to include documentation that the program is consistent with the requirements  
15 regarding the generation, sale and transmission of electricity of the RTO in the control  
16 area where the Default Service provider is providing service. 52 Pa. Code §  
17 54.185(d)(4). The Company will provide Default Service within the control area of  
18 PJM, which is an RTO approved by FERC. PPL Electric's DSP VI Program fully meets  
19 these requirements.

20

21 **Q. Please explain how the DSP VI Program is consistent with RTO requirements.**

22 A. First, the Company is proposing a plan that is aligned with PJM's planning period, *i.e.*,  
23 June 1 to May 31 of each year. Second, the Default Service RFP Rules and

1 accompanying SMAs require that both PPL Electric and any bidder in the energy  
2 procurement process must be in compliance with PJM requirements.<sup>10</sup> For example,  
3 Section 2.4 of the Full Requirements SMA requires that the Default Service Supplier be a  
4 PJM member in good standing, be qualified as a market buyer and seller, and be qualified  
5 as a PJM Load Serving Entity. Additionally, Article 4 of the Full Requirements RFP  
6 Rules requires a potential supplier to certify that it is a member of PJM and qualified as a  
7 market buyer and market seller in good standing who can secure generation or otherwise  
8 obtain and deliver electricity in PJM-administered markets in compliance with all  
9 applicable PJM requirements. Finally, a potential supplier must certify that it has been  
10 authorized by FERC to make sales of energy, capacity and ancillary services at market-  
11 based rates.

12  
13 **VII. CONTINGENCY PLANNING**

14 **Q. Does the DSP VI Program contain a contingency plan to ensure reliable provision of**  
15 **Default Service?**

16 **A.** Yes. The Commission's Default Service Regulations require that a Default Service plan  
17 include contingency plans to ensure the reliable provision of Default Service if a  
18 wholesale generation supplier fails to meet its contractual obligations. The DSP VI  
19 Program meets these requirements.

20  

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<sup>10</sup> Bidders in the AEC procurement must comply with PJM requirements associated with the PJM GATS system.

1 **Q. Is the contingency plan in the DSP VI Program similar to the contingency plan in**  
2 **the DSP V Program?**

3 A. Yes, for previously offered products the contingency plans are the same. Specifically,  
4 Fixed-Price and Spot Market Full Requirements contingency plans remain the same as  
5 those previously approved in the DSP V Proceeding. The contingency plan for the Long-  
6 Term Block is to procure a 5-year, 50 MW block product in the same manner as DSP V.  
7 The contingency plan for the Long-Term PA Solar AEC RFP is to acquire AECs  
8 separately through an auction to satisfy the Company's AEPS Act obligations. There is  
9 no contingency plan for the DSP VI TOU rate option as it is a calculation based upon the  
10 PTC and does not require a contingency plan.

11

12 **Q. Please summarize the contingency plan to be used for Full Requirements contracts**  
13 **and Spot Market Full Requirements contracts under the DSP VI Program.**

14 A. If the Commission rejects all bids for a given product, in any solicitation, or if some  
15 tranches of a given product in a particular solicitation do not receive bids, the Company  
16 will expeditiously seek guidance and approval from the Commission to address this  
17 shortfall in procurement of Default Service supply.

18 To the extent that unfilled tranches remain at the commencement of delivery for a  
19 given product, the Company will obtain Default Service supply through the spot market  
20 administered by PJM. Specifically, PPL Electric will supply the unserved load by  
21 purchasing energy and all other necessary services through the PJM-administered  
22 markets, including, but not limited to, the energy, capacity, ancillary services, and any  
23 other service required by PJM to serve such unserved load. AEC's will be obtained

1 utilizing the AEC contingency plan discussed earlier. PPL Electric proposes to recover  
2 all the costs of such purchases from Default Service customers in the retail rates charged  
3 for the service for which the purchases are made.

4 In the event a supplier defaults, PPL Electric will offer Full Requirements supply  
5 assignment to other winning bidders for the same product consistent with the step-up  
6 process described in the Full Requirements SMA. If this assignment is not successful,  
7 PPL Electric will offer Full Requirements supply assignment to all Default Service  
8 suppliers consistent with the Full Requirements SMA, even if a Default Service supplier  
9 does not serve tranches for that product. These assignments will be offered at the original  
10 bid price in the event of default(s), or at the average price from the last successful bid for  
11 that product in the event of insufficient bids.

12  
13 **Q. Please summarize the contingency plans to be used for the Long-Term Block RFP**  
14 **under the DSP VI Program.**

15 A. The Company will implement different contingency plans in the event a minimum of 100  
16 MW is not procured from the Long-Term Block. If the Company is unable to procure a  
17 minimum of 100 MW, PPL Electric will issue an RFP for a five-year block product in 50  
18 MW increments, similar to the block products procured in DSP V, until the 100 MW  
19 minimum threshold is procured. If the Company's solicitation yields no response or the  
20 Commission rejects all bids, PPL Electric will enter into block energy contracts totaling  
21 100 MW. For contingency block energy contracts, if the Commission rejects all bids for  
22 a given product, in any solicitation, or if there are not at least two wholesale suppliers  
23 submitting offers for the block energy tranches, the Company will offer the unsuccessful

1 block energy tranches during the next Default Service auction. The term of the block  
2 contract will remain at 5 years when rebid. Following the third unsuccessful auction for  
3 the block products, PPL Electric will cease offering the block product and instead seek  
4 PUC guidance.

5  
6 **Q. Please explain the AEC auction contingency plan.**

7 A. The AEC contingency plan is dependent on whether or not the Long-Term PA Solar AEC  
8 RFP procurement is successful. If PPL Electric is unable to procure Long-Term PA  
9 Solar AECs through the RFP, the Company will use the annual July auction to procure  
10 additional AECs needed to satisfy the Long-Term Block product's AEPS requirements.

11 If PPL Electric does not garner enough bidder activity for the AEC portion of the  
12 July auctions, the Company will revert to using at least 3 brokers to procure AECs to  
13 satisfy the AEPS obligations. If brokers are unable to provide the Company with the  
14 necessary amount of AECs, PPL Electric will pay the Alternative Compliance Payment  
15 ("ACP") to remain compliant with the AEPS. Employing the AEC contingency plan  
16 utilizes the auction platform to the greatest extent possible and minimizes broker-only  
17 purchases.

18  
19 **VIII. TIME OF USE**

20 **Q. Does the Company currently offer a TOU rate option under its DSP V Program?**

21 A. Yes, for Residential and Small C&I customers. The currently effective TOU Program  
22 was authorized by the partial settlement of the DSP V proceeding.

23

1 **Q. Describe the currently effective TOU Program.**

2 A. The TOU Program in general implements a summer and winter term – the summer term  
3 runs June 1 through November 30 annually, and the winter term runs December 1  
4 through May 31 annually. The summer term on-peak hours are 2:00 PM through 6:00  
5 PM, Monday through Friday, excluding holidays. Off-peak hours are all other hours not  
6 deemed on-peak and include weekends and holidays. The winter term on-peak hours are  
7 4:00 PM through 8:00 PM, Monday through Friday, excluding holidays. Off-peak hours  
8 are all other hours, including weekends and holidays.

9 For the TOU Program, on-peak and off-peak rates are based on the applicable  
10 generation rate for each respective Customer Class. Energy is procured from the  
11 wholesale suppliers serving Default Service. Wholesale suppliers are paid their bid price,  
12 as contracted, not the calculated TOU rates.

13 The off-peak multiplier is 90% relative to the generation portion of the PTC in  
14 effect. The on-peak multiplier reflects the price differential between on-peak and off-  
15 peak spot market prices at the PPL Residual Aggregation Point, based upon a rolling 5-  
16 year average. The rolling 5-year average is recalculated each summer and winter term.  
17 The remaining rate components of the PTC continue to apply to the calculated TOU rate.  
18 TOU reconciliation occurs across the Residential and Small C&I Customer Classes.

19

20 **Q. Has the DSP V TOU Program been successful?**

21 A. The Company has been able to offer a TOU rate using the current formula calculation,  
22 but there has been low participation in the program. Approximately only 0.06% of PPL  
23 Electric's customers billed are on the TOU rate. Utilizing the TOU formula to determine

1 a rate has allowed the Company to continue to offer the product, as there is no indication  
2 that suppliers would participate in a TOU auction.

3  
4 **Q. Did PPL Electric make any commitment to undertake additional reporting and**  
5 **analysis as part of this proceeding?**

6 A. Yes. The partial settlement in the DSP V proceeding contains the following  
7 commitment:

8 The Company agrees to perform additional analysis and reporting on the TOU  
9 program in its next DSP proceeding. Such analysis will include evaluation of the  
10 PPL Electric Residual Aggregation Point Locational Margin Prices (LMP) for the  
11 preceding two calendar years, and residential and small commercial and industrial  
12 customer load, by hour, for the preceding two calendar years. Analysis will focus  
13 on evaluating the appropriate on-peak hours for the next DSP TOU program.  
14

15 **Q. Please describe the results of the analysis.**

16 A. PPL Electric analyzed a variety of on-peak and off-peak hours for summer and winter  
17 terms, as well as for an annual term. The analysis indicates that shifting the on-peak  
18 hours to 3:00 PM to 7:00 PM annually provides slight savings versus the current summer  
19 and winter terms while providing a simplified structure for customers, which may  
20 encourage increased participation in the program. While shifting on-peak hours to 5:00  
21 PM to 9:00 PM offered the greatest savings, the Company determined that timeframe  
22 may not be preferred by customers and could negatively impact customer participation.  
23

1 **Q. Did the Company make any other commitment to evaluate its TOU Program?**

2 A. Yes, as part of the DSP V partial settlement, PPL Electric agreed to evaluate the impacts  
3 of the TOU rates on confirmed low-income customers as part of its annual reports  
4 required by Act 129 of 2008.

5  
6 **Q. Has the Company undertaken such evaluations?**

7 A. Yes. PPL Electric has approximately 209,000 confirmed low-income customers, of  
8 which 90 are on the TOU rate, or less than 0.05%. Therefore, PPL Electric was unable to  
9 come to any meaningful conclusions on the impact of the TOU rate on confirmed low-  
10 income customers. Additionally, low-income customers in OnTrack are not able to  
11 participate in TOU.

12  
13 **Q. Is PPL Electric proposing any changes to its TOU rate option under the DSP VI  
14 Program?**

15 A. PPL Electric is planning to change the TOU on-peak hours to 3:00 PM to 7:00 PM  
16 annually, eliminating the separate summer and winter terms. No changes will be made to  
17 the off-peak hour percentage discount. PPL Electric put thoughtful consideration into the  
18 best way to calculate the off-peak rate percentage discount when it was originally  
19 established, and the Company has determined that there are no changes that would  
20 benefit customers.

21  
22 **Q. Is PPL Electric proposing any changes to the eligibility of the TOU Program?**

23 A. No, Residential and Small C&I customers are eligible for TOU.

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**Q. Does PPL Electric have a recommendation concerning EV TOU rates and how they could be applied?**

A. No, not at this time. PPL Electric supports customers pursuing EV adoption. The Company has actively participated in the Commission’s Electric Utility Rate Design for Electric Vehicle Charging Policy Statement proceeding. *See Electric Utility Rate Design for Electric Vehicle Charging*, Docket No. M-2023-3040755 (Proposed Policy Statement Order entered November 15, 2023). In addition, PPL Electric has participated in the PA Department of Environmental Protection-led Drive Electric Pennsylvania Coalition and sees itself as an enabler in the EV space. The Company is gathering information on the rate of EV adoption, what demands EVs will put on the grid, metering arrangements for EV chargers, and rate designs that promote EV adoption while also being equitable to all customers. PPL Electric anticipates proposing an EV rate in the future.

**IX. MISCELLANEOUS**

**Q. Is PPL Electric requesting that the Commission issue any specific rulings to support implementation of the DSP VI Program?**

A. Yes. In addition to approving all aspects of the DSP VI Program and the requested waivers described in the Petition, PPL Electric requests that the Commission approve the DSP VI SMAs as affiliated interest agreements under 66 Pa.C.S. § 2102 and include such approval in its final order.

1 **Q. Please explain why the Company is requesting affiliate approval of the DSP VI**  
2 **SMA.**

3 A. Under 52 Pa. Code § 54.186(b)(5), an affiliated supplier may participate in a Default  
4 Service Provider’s competitive bid solicitations for generation service. PPL Electric  
5 currently does not have any affiliated suppliers.<sup>11</sup> However, in the event any suppliers  
6 were to become affiliated with PPL Electric during the DSP VI Program Period, any such  
7 unregulated affiliates will be permitted to participate in the Company’s Default Service  
8 supply solicitations. If one of those affiliates is the successful bidder for one or more  
9 tranches of Default Service supply, PPL Electric would enter into a SMA with that  
10 affiliate.

11 It would not be practical or efficient, in light of the procurement schedule set forth  
12 in Attachment C to the Petition, for the Commission to review the SMA contracts under  
13 66 Pa.C.S. § 2102 following the solicitation processes. Rejection or significant  
14 modification to the SMA after a solicitation has concluded, and winning bidders have  
15 been selected, could significantly disrupt the Company’s Default Service procurement  
16 process.

17

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<sup>11</sup> See *Joint Application of PPL Interstate Energy Company and PPL Electric Utilities Corporation for All of the Necessary Authority, Approvals, and Certificates of Public Convenience (1) for the Transfer of PPL Corporation's Ownership Interest in PPL Interstate Energy Company to Talen Energy Corporation, and Certain Post Closing Transactions Associated therewith; (2) for the Transfer of Certain Property Interests Between PPL Electric Utilities Corporation and PPL Energy Supply, LLC, and its Subsidiaries in Conjunction with the Transfer of All of the Interests of PPL Energy Supply, LLC and its Subsidiaries to Talen Energy Corporation; (3) for any Modification or Amendment of Associated Affiliated Interest Agreements; and (4) for any Other Approvals Necessary to Complete the Contemplated Transactions*, Docket Nos. A-2014-2435752, A-2014-2435833, 2015 Pa. PUC LEXIS 157 (Order entered April 15, 2015).

1 **Q. Is the Company requesting any waivers in this proceeding?**

2 A. Yes. Pursuant to 52 Pa. Code § 54.185(f), a Default Service provider “shall include  
3 requests for waivers from the provisions of this subchapter in their Default Service  
4 program filings.” In this proceeding, PPL Electric is requesting the following waivers for  
5 the DSP VI Program:

- 6 • PPL Electric seeks a waiver of the quarterly PTC requirement and, instead,  
7 proposes to continue to offer semi-annual PTC changes. The semi-annual PTC  
8 was approved in DSP III, DSP IV, and DSP V, to be consistent with the 6- and  
9 12-month procurements used in those Programs. The proposed 12-month and 24-  
10 month procurements, to be undertaken semi-annually, remain consistent with a  
11 semi-annual PTC change. The six-month PTC changes, and associated twelve-  
12 month reconciliations, reduce volatility in the PTC. Moreover, the six-month  
13 PTC changes support retail competition by providing customers greater certainty  
14 when evaluating shopping opportunities and by providing EGSs greater certainty  
15 when developing offers.
- 16 • PPL Electric also seeks a waiver from the requirement to issue a final PTC 45  
17 days prior to the effective date of the PTC, and to continue the issuance of the  
18 PTC 30 days in advance of the effective date that was approved for DSP III, DSP  
19 IV, and DSP V.
- 20 • PPL Electric also seeks a waiver of the provisions of 52 Pa. Code § 54.10(3), to  
21 the extent necessary to return customers on SOP to Default Service at the  
22 conclusion of the SOP contract, unless the customer affirmatively elects an EGS  
23 contract.

- 1           • To the extent required, PPL Electric also seeks a waiver from Section 69.1804 of  
2           the Commission’s DSP Policy Statement, which provides that default service  
3           plans should be for two years, unless otherwise directed by the Commission. As  
4           explained previously, PPL Electric proposes that the term of the DSP VI Program  
5           be for four years.
- 6           • In addition, the Commission offered a series of guidelines for PPL Electric’s TOU  
7           Program design in its Secretarial Letter issued April 6, 2017. Although these  
8           were specified as guidelines, and not requirements, PPL Electric requests  
9           waivers as appropriate, if necessary. In particular, PPL Electric proposes to  
10          continue its current form of TOU, which does not use a TOU auction process.

11

12 **Q. Is the Company requesting that the Commission act on its petition by a specific**  
13 **date?**

14 A. Yes. PPL Electric requests that the Commission approve the DSP VI Program on or  
15 before December 20, 2024. The Company requests Commission approval of the DSP VI  
16 Program no later than December 20, 2024, to provide sufficient time to implement  
17 procurements under the Program.

18

19

20 **Q. Does this conclude your direct testimony?**

21 A. Yes.

# **Exhibit AC-1**

**DSP 5**  
**Solicitation 1**  
**Results**

Exhibit AC-1

PPL Electric Utilities Corporation  
DSP 5, Solicitation 1 Results  
Completed April, 2021  
Delivery Term begins June 1, 2021  
Average Prices are \$ / MWh

Product	Term	Tranches	Average Price
Residential Fixed Price FR	12-Months	16	\$45.17
Residential Fixed Price FR	6-Months	8	\$41.62
Small C&I Fixed Price FR	12-Months	6	\$42.87
Small C&I Fixed Price FR	6-Months	9	\$39.47
Large C&I (Spot Market)	12-Months	10	\$1.61
Block Supply (Fixed Price)	5-Year	2	\$25.95

Notes:

1 -

Prices do not reflect taxes and other cost used to derive the retail price to customers.

Exhibit AC-1



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
400 NORTH STREET, HARRISBURG, PA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

April 8, 2021

Docket No. P-2020-3019356  
Utility Code: 110500

KIMBERLY A KLOCK  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of April 2021 Request for Proposals

Dear Ms. Klock.:

On April 7, 2021, PPL Electric Utilities Corporation (PPL or the Company) filed the results of its Request for Proposals (RFP) Process and Rules for the April 2021 Solicitation for provider of last resort service. The filing includes bid results for a Full Requirements RFP for Residential, Small Commercial & Industrial, and Large Commercial & Industrial customers who receive default service from PPL during the period June 1, 2021 through May 31, 2026.

This filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020 as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket No. P-2020-3019356.

PPL requests that the Commission approve the bid results of the April 2021 Solicitation on or before April 8, 2021.

Further investigation does not appear to be warranted at this time, since the results of the April 2021 Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission.

Therefore, we direct PPL to disclose the results of this April 2021 Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010 at Docket No. M-2009-2082042.

Please direct any questions to Debra Backer, Energy Supervisor, Bureau of Technical Utility Services, at (717) 783-9787.

Sincerely,

Rosemary Chavetta  
Secretary

**Exhibit AC-1**

**PPL Electric Utilities Corporation  
DSP 5, Alternative Energy Credit Solicitation 1 Results  
Completed July 27, 2021  
Average Prices are \$ / AEC**

<b>Product</b>	<b>Eligible Vintage</b>	<b>Average Price</b>
<b>Photo-voltaic AEC</b>	6/1/2019 – 5/31/2022	\$44.72
<b>PA Tier 1 AEC</b>	6/1/2019 – 5/31/2022	\$20.58
<b>PA Tier 2 AEC</b>	6/1/2019 – 5/31/2022	\$13.48

Exhibit AC-1



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

July 29, 2021

Docket No. P-2020-3019356

JAMES ROULAND  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of Request for Proposal – Alternative Energy Credits July 2021

Dear Mr. Rouland:

On July 28, 2021, PPL Electric Utilities Corp. (PPL) filed the results of its Request for Proposals (RFP) process and rules (July 2021 AEC Solicitation), to obtain Alternative Energy Credits (AEC) for compliance with Pennsylvania's Alternative Energy Portfolio Standards Act. This filing included bid results for the first of eight scheduled semi-annual solicitations to obtain AECs for the period beginning June 1, 2021 through May 31, 2025

The July 2021 AEC Solicitation filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020, as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket P-2020-3019356.

The July 2021 AEC Solicitation sought procurement of 14,600 Solar Photovoltaic AECs, 219,000 Tier I AECs, and 292,000 Tier II AECs with a vintage period beginning June 1, 2019 through May 31, 2022. PPL requests that the Commission approve the bid results for the July 2021 AEC Solicitation by close of business July 29, 2021.

Further investigation does not appear to be warranted at this time, since the results of the July 2021 AEC Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission. Therefore, we direct PPL to disclose the results of this July 2021 AEC Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010, at Docket No. M-2009-2082042.

**Exhibit AC-1**

Please direct any questions to Darren Gill, Deputy Director, Bureau of Technical Utility Services, at (717)783-5244.

Sincerely,

A handwritten signature in black ink, appearing to read "Rosemary Chiavetta". The signature is written in a cursive style with a large initial "R".

Rosemary Chiavetta  
Secretary

cc: Parties of Record  
Kimberly Klock  
Benjamin Chee

**DSP 5**  
**Solicitation 2**  
**Results**

Exhibit AC-1

PPL Electric Utilities Corporation  
DSP 5, Solicitation 2 Results  
Completed October, 2021  
Delivery Term begins December 1, 2021  
Average Prices are \$ / MWh

Product	Term	Tranches	Average Price
Residential Fixed Price FR	12-Months	16	\$71.94
Residential Fixed Price FR	6-Months	8	\$86.96
Small C&I Fixed Price FR	12-Months	5	\$66.86
Small C&I Fixed Price FR	6-Months	9	\$82.24
Block Supply (Fixed Price)	5-Year	2	\$39.40

Notes:

1 -

Prices do not reflect taxes and other cost used to derive the retail price to customers.

Exhibit AC-1



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
400 NORTH STREET, HARRISBURG, PA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

October 14, 2021

Docket No. P-2020-3019356  
Utility Code: 110500

**EMAIL**

KIMBERLY A KLOCK  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101  
[KKLOCK@PPLWEB.COM](mailto:KKLOCK@PPLWEB.COM)

Re: PPL Electric Utilities Corporation  
Results of October 2021 Request for Proposals

Dear Ms. Klock.:

On October 13, 2021, PPL Electric Utilities Corporation (PPL or the Company) filed the results of its Request for Proposals (RFP) Process and Rules for the October 2021 Solicitation for provider of last resort (POLR) service. The filing includes PPL's RFP bid results for POLR service for its Residential and Small Commercial & Industrial customers who receive default service from PPL during the period December 1, 2021 through November 30, 2026.

This filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020 as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket No. P-2020-3019356.

PPL requests that the Commission approve the bid results of the October 2021 Solicitation on or before October 14, 2021.

Further investigation does not appear to be warranted at this time, since the results of the October 2021 Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission.

Therefore, we direct PPL to disclose the results of this October 2021 Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010 at Docket No. M-2009-2082042.

Please direct any questions to Debra Backer, Energy Supervisor, Bureau of Technical Utility Services, at (717) 783-9787.

Sincerely,

A handwritten signature in black ink that reads "Rosemary Chiavetta".

Rosemary Chiavetta  
Secretary

**Exhibit AC-1**

**PPL Electric Utilities Corporation  
DSP 5, Alternative Energy Credit Solicitation 2 Results  
Completed January 18, 2022  
Average Prices are \$ / AEC**

<b>Product</b>	<b>Eligible Vintage</b>	<b>Average Price</b>
<b>Photo-voltaic AEC</b>	6/1/19 - 5/31/22	\$44.75
<b>PA Tier 1 AEC</b>	6/1/19 - 5/31/22	\$24.24
<b>PA Tier 2 AEC</b>	6/1/19 - 5/31/22	\$14.64



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

January 20, 2022

Docket No. P-2020-3019356

JAMES ROULAND  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of Request for Proposal – Alternative Energy Credits January 2022

Dear Mr. Rouland:

On January 19, 2022, PPL Electric Utilities Corp. (PPL) filed the results of its Request for Proposals (RFP) process and rules (January 2022 AEC Solicitation), to obtain Alternative Energy Credits (AEC) for compliance with Pennsylvania's Alternative Energy Portfolio Standards Act. This filing included bid results for the second of eight scheduled semi-annual solicitations to obtain AECs for the period beginning June 1, 2021 through May 31, 2025

The January 2022 AEC Solicitation filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020, as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket P-2020-3019356.

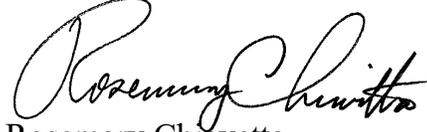
The January 2022 AEC Solicitation sought procurement of 29,400 Solar Photovoltaic AECs, 518,000 Tier I AECs, and 554,000 Tier II AECs with a vintage period beginning June 1, 2019 through May 31, 2022. PPL requests that the Commission approve the bid results for the January 2022 AEC Solicitation by close of business January 20, 2022.

Further investigation does not appear to be warranted at this time, since the results of the January 2022 AEC Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission. Therefore, we direct PPL to disclose the results of this July 2021 AEC Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010, at Docket No. M-2009-2082042.

**Exhibit AC-1**

Please direct any questions to Joseph Sherrick, Supervisor, Bureau of Technical Utility Services, at (717) 787-5369.

Sincerely,

A handwritten signature in black ink, appearing to read "Rosemary Chiavetta". The signature is fluid and cursive, with the first name being more prominent.

Rosemary Chiavetta  
Secretary

cc: Parties of Record  
Kimberly Klock  
Benjamin Chee

**DSP 5**  
**Solicitation 3**  
**Results**

Exhibit AC-1

PPL Electric Utilities Corporation  
DSP 5, Solicitation 3 Results  
Completed April 12, 2022  
Delivery Term begins June 1, 2022  
Average Prices are \$ / MWh

Product	Term	Tranches	Average Price
Residential Fixed Price FR	12-Months	16	\$100.20
Residential Fixed Price FR	6-Months	8	\$92.61
Small C&I Fixed Price FR	12-Months	6	\$94.43
Small C&I Fixed Price FR	6-Months	9	\$90.31
Large C&I Spot Market	12-Months	10	\$0.66

Notes:

1 -

Prices do not reflect taxes and other cost used to derive the retail price to customers.



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120  
April 14, 2022

Docket No. P-2020-3019356  
Utility Code: 110500

EMAIL

KIMBERLY A KLOCK  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101  
[KKLOCK@PPLWEB.COM](mailto:KKLOCK@PPLWEB.COM)

Re: PPL Electric Utilities Corporation  
Results of April 2022 Request for Proposals

Dear Ms. Klock.:

On April 13, 2022, PPL Electric Utilities Corporation (PPL or the Company) filed the results of its Request for Proposals (RFP) Process and Rules for the April 2022 Solicitation for provider of last resort service. The filing includes bid results for a Full Requirements RFP for Residential, Small Commercial & Industrial, and Large Commercial & Industrial customers who receive default service from PPL during the period June 1, 2022 through May 31, 2023.

This filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020 as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket No. P-2020-3019356.

PPL requests that the Commission approve the bid results of the April 2022 Solicitation on or before April 14, 2022.

Further investigation does not appear to be warranted at this time, since the results of the April 2022 Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission.

Therefore, we direct PPL to disclose the results of this April 2022 Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010 at Docket No. M-2009-2082042.

Please direct any questions to Debra Backer, Energy Supervisor, Bureau of Technical Utility Services, at (717) 783-9787.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rosemary Chiavetta', is written over a faint, larger version of the same signature.

Rosemary Chiavetta  
Secretary

cc: All Parties of Record

**Exhibit AC-1**

**PPL Electric Utilities Corporation  
DSP 5, Alternative Energy Credit Solicitation 3 Results  
Completed July 26, 2022  
Average Prices are \$ / AEC**

<b>Product</b>	<b>Eligible Vintage</b>	<b>Average Price</b>
<b>Photo-voltaic AEC</b>	6/1/20 - 5/31/23	\$45.79
<b>PA Tier 1 AEC</b>	6/1/20 - 5/31/23	\$24.38
<b>PA Tier 2 AEC</b>	6/1/20 - 5/31/23	\$10.87



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120

July 28, 2022

IN REPLY PLEASE  
REFER TO OUR FILE

Docket No. P-2020-3019356

JAMES ROULAND  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of Request for Proposal – Alternative Energy Credits July 2022

Dear Mr. Rouland:

On July 27, 2022, PPL Electric Utilities Corp. (PPL) filed the results of its Request for Proposals (RFP) process and rules (July 2022 AEC Solicitation), to obtain Alternative Energy Credits (AEC) for compliance with Pennsylvania's Alternative Energy Portfolio Standards Act. This filing included bid results for the third of eight scheduled semi-annual solicitations to obtain AECs for the period beginning June 1, 2021 through May 31, 2025.

The July 2022 AEC Solicitation filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020, as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket P-2020-3019356.

The July 2022 AEC Solicitation sought procurement of 25,600 Solar Photovoltaic AECs, 394,600 Tier I AECs, and 546,000 Tier II AECs with a vintage period beginning June 1, 2020 through May 31, 2023. PPL requests that the Commission approve the bid results for the July 2022 AEC Solicitation by close of business July 28, 2022.

Further investigation does not appear to be warranted at this time, since the results of the July 2022 AEC Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission. Therefore, we direct PPL to disclose the results of this July 2022 AEC Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010, at Docket No. M-2009-2082042.

**Exhibit AC-1**

Please direct any questions to Darren Gill, Deputy Director, Bureau of Technical Utility Services, at (717) 783-5244.

Sincerely,

A handwritten signature in black ink, appearing to read "Rosemary Chiavetta". The signature is written in a cursive style with a large initial "R".

Rosemary Chiavetta  
Secretary

cc: Parties of Record  
Kimberly Klock  
Benjamin Chee

**DSP 5**  
**Solicitation 4**  
**Results**

Exhibit AC-1

PPL Electric Utilities Corporation  
DSP 5, Solicitation 4 Results  
Completed October 11, 2022  
Delivery Term begins December 1, 2022  
Average Prices are \$ / MWh

Product	Term	Tranches	Average Price
Residential Fixed Price FR	12-Months	16	\$106.47
Residential Fixed Price FR	6-Months	8	\$129.93
Small C&I Fixed Price FR	12-Months	5	\$102.82
Small C&I Fixed Price FR	6-Months	9	\$130.86

Notes:

1 - Prices do not reflect taxes and other cost used to derive the retail price to customers.

Exhibit AC-1



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
400 NORTH STREET, HARRISBURG, PA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

October 13, 2022

Docket No. P-2020-3019356  
Utility Code: 110500

KIMBERLY A KLOCK  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101  
[KKLOCK@PPLWEB.COM](mailto:KKLOCK@PPLWEB.COM)

Re: PPL Electric Utilities Corporation  
Results of October 2022 Request for Proposals

Dear Ms. Klock:

On October 12, 2022, PPL Electric Utilities Corporation (PPL or the Company) filed the results of its Request for Proposals (RFP) Process and Rules for the October 2022 Solicitation for provider of last resort (POLR) service. The filing includes PPL's RFP bid results for POLR service for its Residential and Small Commercial & Industrial customers who receive default service from PPL during the period December 1, 2022 through November 30, 2023.

This filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020 as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket No. P-2020-3019356.

PPL requests that the Commission approve the bid results of the October 2022 Solicitation on or before October 13, 2022.

Further investigation does not appear to be warranted at this time, since the results of the October 2022 Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission.

Therefore, we direct PPL to disclose the results of this October 2022 Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010 at Docket No. M-2009-2082042.

Please direct any questions to Darren D. Gill, Deputy Director - Bureau of Technical Utility Services, at (717) 783-5244.

Sincerely,

A handwritten signature in cursive script that reads "Rosemary Chiavetta".

Rosemary Chiavetta  
Secretary

**Exhibit AC-1**

**PPL Electric Utilities Corporation  
DSP 5, Alternative Energy Credit Solicitation 3 Results  
Completed January 17, 2023  
Average Prices are \$ / AEC**

<b>Product</b>	<b>Eligible Vintage</b>	<b>Average Price</b>
<b>Photo-voltaic AEC</b>	6/1/20 - 5/31/23	\$51.31
<b>PA Tier 1 AEC</b>	6/1/20 - 5/31/23	\$29.17
<b>PA Tier 2 AEC</b>	6/1/20 - 5/31/23	\$19.59



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

January 19, 2023

Docket No. P-2020-3019356

JAMES ROULAND  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of Request for Proposal – Alternative Energy Credits January 2023

Dear Mr. Rouland:

On January 18, 2023, PPL Electric Utilities Corp. (PPL) filed the results of its Request for Proposals (RFP) process and rules (January 2023 AEC Solicitation), to obtain Alternative Energy Credits (AEC) for compliance with Pennsylvania's Alternative Energy Portfolio Standards Act. This filing included bid results for the fourth of eight scheduled semi-annual solicitations to obtain AECs for the period beginning June 1, 2021, through May 31, 2025.

The January 2023 AEC Solicitation filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020, as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket P-2020-3019356.

The January 2023 AEC Solicitation sought procurement of 34,600 Solar Photovoltaic AECs, 502,000 Tier I AECs, and 684,000 Tier II AECs with a vintage period beginning June 1, 2020 through May 31, 2023. PPL requests that the Commission approve the bid results for the January 2023 AEC Solicitation by close of business January 19, 2023.

Further investigation does not appear to be warranted at this time, since the results of the January 2023 AEC Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission. Therefore, we direct PPL to disclose the results of this January 2023 AEC Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010, at Docket No. M-2009-2082042.

**Exhibit AC-1**

Please direct any questions to Joseph Sherrick, Supervisor, Bureau of Technical Utility Services, at (717) 787-5369.

Sincerely,

  
Rosemary Chiavetta  
Secretary

cc: Parties of Record  
Kimberly Klock  
Benjamin Chee

**DSP 5**  
**Solicitation 5**  
**Results**

Exhibit AC-1

PPL Electric Utilities Corporation  
DSP 5, Solicitation 5 Results  
Completed April 11, 2023  
Delivery Term begins June 1, 2023  
Average Prices are \$ / MWh

Product	Term	Tranches	Average Price
Residential Fixed Price FR	12-Months	16	\$73.71
Residential Fixed Price FR	6-Months	8	\$59.31
Small C&I Fixed Price FR	12-Months	6	\$66.30
Small C&I Fixed Price FR	6-Months	9	\$61.97
Large C&I Spot Price FR	12-Months	10	\$4.20

Notes:

1 - Prices do not reflect taxes and other cost used to derive the retail price to customers.



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120

April 13, 2023

Docket No. P-2020-3019356  
Utility Code: 110500

KIMBERLY A KLOCK  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of April 2023 Request for Proposals

Dear Ms. Klock:

On April 12, 2023, PPL Electric Utilities Corporation (PPL or the Company) filed the results of its Request for Proposals (RFP) Process and Rules for the April 2023 Solicitation for provider of last resort service. The filing includes bid results for a Full Requirements RFP for Residential, Small Commercial & Industrial, and Large Commercial & Industrial customers who receive default service from PPL during the period June 1, 2023 through May 31, 2024.

This filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020 as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket No. P-2020-3019356.

PPL requests that the Commission approve the bid results of the April 2023 Solicitation on or before April 13, 2023.

Further investigation does not appear to be warranted at this time, since the results of the April 2023 Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission.

Therefore, we direct PPL to disclose the results of this April 2023 Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010 at Docket No. M-2009-2082042.

Please direct any questions to Debra Backer, Energy Supervisor, Bureau of Technical Utility Services, at (717) 783-9787.

Sincerely,

  
Rosemary Chivetta  
Secretary

**Exhibit AC-1**

**PPL Electric Utilities Corporation  
DSP 5, Alternative Energy Credit Solicitation 5 Results  
Completed July 25, 2023  
Average Prices are \$ / AEC**

<b>Product</b>	<b>Eligible Vintage</b>	<b>Average Price</b>
<b>Photo-voltaic AEC</b>	6/1/20 - 5/31/24	\$37.12
<b>PA Tier 1 AEC</b>	6/1/20 - 5/31/24	\$34.12
<b>PA Tier 2 AEC</b>	6/1/20 - 5/31/24	\$37.44



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120

July 28, 2022

IN REPLY PLEASE  
REFER TO OUR FILE

Docket No. P-2020-3019356

JAMES ROULAND  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of Request for Proposal – Alternative Energy Credits July 2022

Dear Mr. Rouland:

On July 27, 2022, PPL Electric Utilities Corp. (PPL) filed the results of its Request for Proposals (RFP) process and rules (July 2022 AEC Solicitation), to obtain Alternative Energy Credits (AEC) for compliance with Pennsylvania's Alternative Energy Portfolio Standards Act. This filing included bid results for the third of eight scheduled semi-annual solicitations to obtain AECs for the period beginning June 1, 2021 through May 31, 2025.

The July 2022 AEC Solicitation filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020, as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket P-2020-3019356.

The July 2022 AEC Solicitation sought procurement of 25,600 Solar Photovoltaic AECs, 394,600 Tier I AECs, and 546,000 Tier II AECs with a vintage period beginning June 1, 2020 through May 31, 2023. PPL requests that the Commission approve the bid results for the July 2022 AEC Solicitation by close of business July 28, 2022.

Further investigation does not appear to be warranted at this time, since the results of the July 2022 AEC Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission. Therefore, we direct PPL to disclose the results of this July 2022 AEC Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010, at Docket No. M-2009-2082042.

**Exhibit AC-1**

Please direct any questions to Darren Gill, Deputy Director, Bureau of Technical Utility Services, at (717) 783-5244.

Sincerely,

A handwritten signature in black ink, appearing to read "Rosemary Chiavetta". The signature is written in a cursive, flowing style.

Rosemary Chiavetta  
Secretary

cc: Parties of Record  
Kimberly Klock  
Benjamin Chee

**DSP 5**  
**Solicitation 6**  
**Results**

Exhibit AC-1

PPL Electric Utilities Corporation  
DSP 5, Solicitation 6 Results  
Completed October 10, 2023  
Delivery Term begins December 1, 2023  
Average Prices are \$ / MWh

Product	Term	Tranches	Average Price
Residential Fixed Price FR	12-Months	16	\$63.27
Residential Fixed Price FR	6-Months	8	\$67.56
Small C&I Fixed Price FR	12-Months	5	\$58.74
Small C&I Fixed Price FR	6-Months	9	\$66.28

Notes:

1 - Prices do not reflect taxes and other cost used to derive the retail price to customers.



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120  
October 12, 2023

Docket No. P-2020-3019356  
Utility Code: 110500

KIMBERLY A KLOCK  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of October 2023 Request for Proposals

Dear Ms. Klock:

On October 11, 2023, PPL Electric Utilities Corporation (PPL or the Company) filed the results of its Request for Proposals (RFP) Process and Rules for the October 2023 Solicitation for provider of last resort (POLR) service. The filing includes PPL's RFP bid results for POLR service for its Residential and Small Commercial & Industrial customers who receive default service from PPL during the period December 1, 2023 through November 30, 2024.

This filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020 as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket No. P-2020-3019356.

PPL requests that the Commission approve the bid results of the October 2023 Solicitation on or before October 12, 2023.

Further investigation does not appear to be warranted at this time, since the results of the October 2023 Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission.

Therefore, we direct PPL to disclose the results of this October 2023 Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010 at Docket No. M-2009-2082042.

Please direct any questions to Darren D. Gill, Deputy Director - Bureau of Technical Utility Services, at (717) 783-5244.

Sincerely,

A handwritten signature in black ink that reads 'Rosemary Chiavetta'. The signature is written in a cursive, flowing style.

Rosemary Chiavetta  
Secretary

**Exhibit AC-1**

**PPL Electric Utilities Corporation  
DSP 5, Alternative Energy Credit Solicitation 6 Results  
Completed January 16, 2024  
Average Prices are \$ / AEC**

<b>Product</b>	<b>Eligible Vintage</b>	<b>Average Price</b>
<b>Photo-voltaic AEC</b>	6/1/21 - 5/31/24	\$33.28
<b>PA Tier 1 AEC</b>	6/1/21 - 5/31/24	\$32.85
<b>PA Tier 2 AEC</b>	6/1/21 - 5/31/24	\$33.48



**COMMONWEALTH OF PENNSYLVANIA**  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
COMMONWEALTH KEYSTONE BUILDING  
400 NORTH STREET  
HARRISBURG, PENNSYLVANIA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

January 17, 2024

Docket No. P-2020-3019356

ANDY CASTANARO  
MANAGER, ENERGY PROCUREMENT  
PPL ELECTRIC UTILITIES CORPORATION  
TWO NORTH NINTH ST  
ALLENTOWN PA 18101

Re: PPL Electric Utilities Corporation  
Results of Request for Proposal – Alternative Energy Credits January 2024

Dear Mr. Castanaro:

On January 17, 2024, PPL Electric Utilities Corp. (PPL) filed the results of its Request for Proposals (RFP) process and rules (January 2024 AEC Solicitation), to obtain Alternative Energy Credits (AEC) for compliance with Pennsylvania's Alternative Energy Portfolio Standards Act. This filing included bid results for the sixth of eight scheduled semi-annual solicitations to obtain AECs for the period beginning June 1, 2021, through May 31, 2025.

The January 2024 AEC Solicitation filing was submitted in accordance with the RFP Process and Rules filed by PPL on September 17, 2020, as part of a Joint Petition for Partial Settlement. The RFP Process and Rules were approved as modified by the Partial Settlement in the Commission's Opinion and Order, entered December 17, 2020, at Docket P-2020-3019356.

The January 2024 AEC Solicitation sought procurement of 27,000 Solar Photovoltaic AECs, 430,400 Tier I AECs, and 538,000 Tier II AECs with a vintage period beginning June 1, 2021, through May 31, 2024. PPL requests that the Commission approve the bid results for the January 2024 AEC Solicitation by close of business January 18, 2024.

Further investigation does not appear to be warranted at this time, since the results of the January 2024 AEC Solicitation appear to have been conducted in accordance with the RFP Process and Rules as approved by the Commission. Therefore, we direct PPL to disclose the results of this January 2024 AEC Solicitation in accordance with the Commission's Secretarial Letter in Re: Disclosure of Default Service Solicitation Results and Creation of a Default Service Rate Calculation Model, issued October 12, 2010, at Docket No. M-2009-2082042.

Please direct any questions to Darren Gill, Deputy Director, Bureau of Technical Utility Services, at (717) 783-5244.

**Exhibit AC-1**

Sincerely,

A handwritten signature in black ink, appearing to read "Rosemary Chiavetta". The signature is written in a cursive, flowing style with a large initial "R".

Rosemary Chiavetta  
Secretary

cc: Parties of Record  
Kimberly Klock  
Benjamin Chee

# **Exhibit AC-2**

**Exhibit AC-2**  
**History of PPL Electric Utilities Corporation's**  
**Price to Compare**  
**2010-present**

<b>Default Service Plan</b>	<b>Period</b>	<b>Residential PTC (cents/kWh)</b>	<b>Small C&amp;I PTC (cents/kWh)</b>
DSP V	12/1/2023 - 5/31/2024	11.028	11.386
	6/1/2023 - 11/30/2023	12.126	11.689
	12/1/2022 - 5/31/2023	14.612	14.751
	6/1/2022 - 11/30/2022	12.366	11.695
	12/1/2021 - 5/31/2022	9.502	10.285
	6/1/2021 - 11/30/2021	7.544	7.541
	12/1/2020 - 5/31/2021	7.317	6.662
	6/1/2020 - 11/30/2020	7.284	6.079
DSP IV	12/1/2019 - 5/31/2020	7.632	6.360
	6/1/2019 - 11/30/2019	7.585	6.207
	12/1/2018 - 5/31/2019	7.039	7.244
	6/1/2018 - 11/30/2018	7.449	6.776
	12/1/2017 - 5/31/2018	7.463	7.701
	6/1/2017 - 11/30/2017	8.493	7.490
DSP III	12/1/2016 - 5/31/2017	7.439	7.197
	6/1/2016 - 11/30/2016	7.491	6.664
	12/1/2015 - 5/31/2016	7.878	7.731
	6/1/2015 - 11/30/2015	9.493	8.982
	3/1/2015 - 5/31/2015	9.559	10.121
DSP II	12/1/2014 - 2/28/2015	9.318	9.325
	10/1/2014 - 11/30/2015	8.956	8.596
	9/1/2014 - 9/30/2014	8.814	8.785
	6/1/2014 - 8/31/2014	9.036	9.585
	3/1/2014 - 5/31/2014	8.754	10.391
	12/1/2013 - 2/28/2014	8.754	9.250
	9/1/2013 - 11/30/2013	8.777	7.605
	6/1/2013 - 8/31/2013	8.227	7.715
DSP I	3/1/2013 - 5/31/2013	7.237	10.814
	12/1/2012 - 2/28/2013	7.554	10.206
	9/1/2012 - 11/30/2012	7.907	10.346
	6/1/2012 - 8/31/2012	7.993	9.154
	3/1/2012 - 5/31/2012	6.935	6.387
	11/1/2011 - 2/29/2012	7.769	6.775
	9/1/2011 - 10/30/2011	8.411	10.184
	6/1/2011 - 8/31/2011	8.774	13.028
	1/1/2011 - 5/31/2011	9.270	9.766
CBP	1/1/2010 - 12/31/2010	10.448	10.402

# **Exhibit AC-3**

**Exhibit AC-3**  
**Summary of Block Energy Contracts**

<b>Period</b>	<b>Size of Block Product (MW)</b>	<b>Estimated Load (%)</b>
12/1/2023 - 5/31/2024	100	9.4
6/1/2023 - 11/30/2023	100	9.8
12/1/2022 - 5/31/2023	100	8.2
6/1/2022 - 11/30/2022	100	10.2
12/1/2021 - 5/31/2022	100	8.9
6/1/2021 - 11/30/2021	50	5.5
12/1/2020 - 5/31/2021	50	3.8
6/1/2020 - 11/30/2020	50	5.3
12/1/2019 - 5/31/2020	50	3.8
6/1/2019 - 11/30/2019	50	5.3
12/1/2018 - 5/31/2019	50	4.0
6/1/2018 - 11/30/2018	50	5.9
12/1/2017 - 5/31/2018	50	4.0
6/1/2017 - 11/30/2017	50	6.1
12/1/2016 - 5/31/2017	50	4.1
6/1/2016 - 11/30/2016	50	7.4
12/1/2015 - 5/31/2016	50	7.5
6/1/2015 - 11/30/2015	150	22.0
3/1/2015 - 5/31/2015	150	19.6
12/1/2014 - 2/28/2015	150	15.0
10/1/2014 - 11/30/2015	150	23.4
9/1/2014 - 9/30/2014	150	23.4
6/1/2014 - 8/31/2014	150	22.1
3/1/2014 - 5/31/2014	150	20.4
12/1/2013 - 2/28/2014	200	19.5
9/1/2013 - 11/30/2013	250	34.7
6/1/2013 - 8/31/2013	350	38.7
3/1/2013 - 5/31/2013	350	38.8
12/1/2012 - 2/28/2013	350	31.2
9/1/2012 - 11/30/2012	350	46.7
6/1/2012 - 8/31/2012	350	45.0
3/1/2012 - 5/31/2012	350	39.7
11/1/2011 - 2/29/2012	350	31.6

# **Exhibit AC-4**

PPL Electric Utilities Corporation DSP 5, Alternative Energy Credit Solicitation Results																	
Average Prices are \$ / AEC			Residential					Small C&I					Large C&I				
Product	Eligible Vintage	Average Price	Forecast	Actual	Purchased	Reconciled	Customers	Forecast	Actual	Purchased	Reconciled	Customers	Forecast	Actual	Purchased	Reconciled	Customers
Photo-voltaic AEC	6/1/2019 – 5/31/2022	\$44.72	10,733	12,228	10,735	(1,493)	822,243	2,645	3,657	3,020	(637)	97,124	742	725	845	120	175
PA Tier 1 AEC	6/1/2019 – 5/31/2022	\$20.58	161,001	183,425	104,683	(78,742)		39,671	54,857	29,429	(25,428)		11,126	10,870	8,238	(2,632)	
PA Tier 2 AEC	6/1/2019 – 5/31/2022	\$13.48	214,668	244,567	214,700	(29,867)		52,895	73,143	60,400	(12,743)		14,835	14,493	16,900	2,407	
Photo-voltaic AEC	6/1/19 - 5/31/22	\$44.75	21,617	24,199	23,970	(229)	845,932	3,886	4,539	4,850	311	98,793	690	1,013	580	(433)	209
PA Tier 1 AEC	6/1/19 - 5/31/22	\$24.24	324,258	362,986	397,670	34,684		58,285	68,075	104,430	36,355		10,345	15,199	15,900	701	
PA Tier 2 AEC	6/1/19 - 5/31/22	\$14.64	432,344	483,980	455,020	(28,960)		77,713	90,767	87,400	(3,367)		13,793	20,266	11,580	(8,686)	
Photo-voltaic AEC	6/1/20 - 5/31/23	\$45.79	18,626	20,504	20,349	(155)	827,926	3,849	5,209	4,174	(1,035)	99,217	764	2,994	1,077	(1,917)	216
PA Tier 1 AEC	6/1/20 - 5/31/23	\$24.38	290,032	319,275	323,239	3,964		59,932	81,116	57,986	(23,130)		11,893	46,630	13,375	(33,255)	
PA Tier 2 AEC	6/1/20 - 5/31/23	\$10.87	372,526	410,084	431,355	21,271		76,979	104,187	93,090	(11,097)		15,276	59,889	21,555	(38,334)	
Photo-voltaic AEC	6/1/20 - 5/31/23	\$51.31	22,850	21,855	25,410	3,555	807,052	4,169	4,456	5,590	1,134	97,033	943	1,497	3,600	2,103	182
PA Tier 1 AEC	6/1/20 - 5/31/23	\$29.17	360,197	344,491	376,800	32,309		65,718	70,245	72,820	2,575		14,877	23,595	52,380	28,785	
PA Tier 2 AEC	6/1/20 - 5/31/23	\$19.59	456,997	437,096	502,440	65,344		83,372	89,119	111,660	22,541		18,869	29,939	69,900	39,961	
Photo-voltaic AEC	6/1/20 - 5/31/24	\$37.12	19,518	17,857	19,527	1,670	784,662	3,849	3,864	4,432	568	93,096	764	1,157	1,641	484	171
PA Tier 1 AEC	6/1/20 - 5/31/24	\$34.12	57,734	267,862	296,158	28,296		57,734	57,966	69,284	11,318		11,457	17,348	27,958	10,610	
PA Tier 2 AEC	6/1/20 - 5/31/24	\$37.44	214,668	357,150	390,388	33,238		76,979	77,288	88,712	11,424		15,276	23,131	34,900	11,769	

# **Exhibit AC-5**

**Exhibit AC-5**  
**Full-Requirements Procurements Comparison**

\$/MWh

EDC	Auction Manager	RES 6 Month	RES 12 Month	RES 24 Month	Small C&I 6 Month	Small C&I 12 Month	Small C&I 24 Month	Med C&I 3 Month	Large C&I 12 Month	Notes (comparison of auctions that generally overlap. Some utilities have quarterly auctions)	
FirstEnergy	Duquesne	CRA	N/A	\$ 65.22	\$ 67.22	N/A	\$ 66.32	\$ 67.57	\$ 76.92	N/A	Auction held September 11, 2023
FirstEnergy	Met-Ed	CRA	N/A	\$ 89.87	\$ 92.53	N/A	\$ 88.03	\$ 90.41	N/A	N/A	Auction held November 6, 2023
FirstEnergy	Penelec	CRA	N/A	\$ 84.38	\$ 85.84	N/A	\$ 87.49	\$ 90.11	N/A	N/A	Auction held November 6, 2023
FirstEnergy	Penn Power	CRA	N/A	\$ 90.41	\$ 91.90	N/A	\$ 92.05	N/A	N/A	N/A	Auction held November 6, 2023
FirstEnergy	West Penn Power	CRA	N/A	\$ 74.62	\$ 75.64	N/A	\$ 74.79	\$ 76.82	N/A	N/A	Auction held November 6, 2023
	PECO	NERA	N/A	\$ 63.28	\$ 70.77	N/A	\$ 60.53	\$ 66.94	N/A	N/A	Auction held Sept 26, 2023
	PPL	NERA	\$ 67.56	\$ 63.27	N/A	\$ 66.28	\$ 58.74	N/A	N/A	N/A	Auction held October 10, 2023, does not include AECs
FirstEnergy	Duquesne	CRA	N/A	\$ 71.83	\$ 71.90	N/A	\$ 75.46	\$ 75.24	\$ 71.98	\$ 11.00	Auction held March 21, 2023
FirstEnergy	Met-Ed	CRA	N/A	\$ 97.41	\$ 104.18	N/A	\$ 99.35	\$ 107.74	N/A	\$ 38.86	Auction held April 10, 2023
FirstEnergy	Penelec	CRA	N/A	\$ 92.29	\$ 96.40	N/A	\$ 99.31	\$ 103.66	N/A	\$ 31.85	Auction held April 10, 2023
FirstEnergy	Penn Power	CRA	N/A	\$ 99.50	\$ 101.46	N/A	\$ 102.31	\$ 106.68	N/A	\$ 36.85	Auction held April 10, 2023
FirstEnergy	West Penn Power	CRA	N/A	\$ 88.23	\$ 93.86	N/A	\$ 91.99	\$ 95.82	N/A	\$ 24.40	Auction held April 10, 2023
	PECO	NERA	N/A	\$ 70.13	\$ 74.34	N/A	\$ 64.91	\$ 69.02	N/A	\$ 9.19	Auction held March 14, 2023
	PPL	NERA	\$ 59.31	\$ 73.71	N/A	\$ 61.97	\$ 66.30	N/A	N/A	\$ 4.20	Auction held April 11, 2023, does not include AECs
FirstEnergy	Duquesne	N/A	\$ 109.31	98.71	N/A	\$ 113.26	100.09	\$ 182.00	N/A	N/A	Auction held Sept 19, 2022
FirstEnergy	Met-Ed	N/A	\$ 100.59	N/A	N/A	\$ 107.37	N/A	N/A	N/A	N/A	Auction held Nov 14, 2022
FirstEnergy	Penelec	N/A	\$ 94.66	N/A	N/A	\$ 107.98	N/A	N/A	N/A	N/A	Auction held Nov 14, 2022
FirstEnergy	Penn Power	N/A	\$ 100.88	N/A	N/A	\$ 113.33	N/A	N/A	N/A	N/A	Auction held Nov 14, 2022
FirstEnergy	West Penn Power	N/A	\$ 89.31	N/A	N/A	\$ 97.75	N/A	N/A	N/A	N/A	Auction held Nov 14, 2022
	PECO	N/A	\$ 100.22	93.71	N/A	\$ 95.37	94.81	N/A	N/A	N/A	Sept 27, 2022 PUC approved (auction likely two days prior)
	PPL		\$ 129.93	\$ 106.47	N/A	\$ 130.86	\$ 102.82	N/A	N/A	N/A	Auction held Oct 11, 2022, does not include AECs
FirstEnergy	Duquesne	N/A	\$ 72.04	69.56	N/A	\$ 69.03	66.23	\$ 69.55	\$ 4.40	N/A	Auction held Mar 14, 2022
FirstEnergy	Met-Ed	N/A	\$ 138.12	N/A	N/A	\$ 131.71	N/A	N/A	N/A	N/A	Auction held April 19, 2022
FirstEnergy	Penelec	N/A	\$ 123.22	N/A	N/A	\$ 131.69	N/A	N/A	N/A	N/A	Auction held April 19, 2022
FirstEnergy	Penn Power	N/A	\$ 131.28	N/A	N/A	\$ 130.60	N/A	N/A	N/A	N/A	Auction held April 19, 2022
FirstEnergy	West Penn Power	N/A	\$ 122.56	N/A	N/A	\$ 122.11	N/A	N/A	N/A	N/A	Auction held April 19, 2022
	PECO	N/A	\$ 74.25	69.01	N/A	\$ 71.34	66.13	N/A	4.72	N/A	Mar 17, 2022 PUC approved (auction likely two days prior)
	PPL		\$ 92.61	\$ 100.20	N/A	\$ 90.31	\$ 94.43	N/A	N/A	\$ 0.66	Auction held Apr 12, 2022, does not include AECs
FirstEnergy	Duquesne	N/A	\$ 63.51	56.45	N/A	\$ 59.55	53.5	\$ 75.22	N/A	N/A	Auction held Sept 20, 2021
FirstEnergy	Met-Ed	N/A	\$ 77.38	N/A	N/A	\$ 74.05	N/A	N/A	N/A	N/A	Auction held Nov 8, 2021
FirstEnergy	Penelec	N/A	\$ 73.21	N/A	N/A	\$ 72.59	N/A	N/A	N/A	N/A	Auction held Nov 8, 2021
FirstEnergy	Penn Power	N/A	\$ 75.22	N/A	N/A	\$ 77.37	N/A	N/A	N/A	N/A	Auction held Nov 8, 2021
FirstEnergy	West Penn Power	N/A	\$ 64.38	N/A	N/A	\$ 61.40	N/A	N/A	N/A	N/A	Auction held Nov 8, 2021
	PECO	N/A	\$ 72.70	64.28	N/A	\$ 67.75	59.81	N/A	N/A	N/A	Sept 30, 2021 PUC approved (auction likely two days prior)
	PPL		\$ 86.96	\$ 71.94	N/A	\$ 82.24	\$ 66.86	N/A	N/A	N/A	Auction held Oct 12, 2021, does not include AECs (5yr block, \$35)
FirstEnergy	Duquesne	N/A	\$ 51.35	\$ 48.86	N/A	\$ 46.88	\$ 44.55	\$ 44.20	\$ 3.05	N/A	Auction held Mar 15, 2021
FirstEnergy	Met-Ed	N/A	\$ 62.95	\$ 61.39	N/A	\$ 58.52	\$ 57.72	N/A	N/A	N/A	Auction held April 26, 2021
FirstEnergy	Penelec	N/A	\$ 60.04	\$ 58.12	N/A	\$ 57.84	\$ 57.03	N/A	N/A	N/A	Auction held April 26, 2021
FirstEnergy	Penn Power	N/A	\$ 69.56	\$ 64.92	N/A	\$ 67.22	\$ 64.80	N/A	N/A	N/A	Auction held April 26, 2021
FirstEnergy	West Penn Power	N/A	\$ 53.16	\$ 50.73	N/A	\$ 49.38	\$ 47.76	N/A	N/A	N/A	Auction held April 26, 2021
	PECO	N/A	\$ 52.73	\$ 50.63	N/A	\$ 48.54	\$ 47.09	N/A	\$ 4.11	N/A	Mar 4, 2021 PUC approved (auction likely two days prior)
	PPL		\$ 41.62	\$ 45.17	N/A	\$ 39.47	\$ 42.87	N/A	N/A	\$ 1.61	Auction held Apr 6, 2021, does not include AECs (5yr block, \$25)
FirstEnergy	Duquesne	N/A	\$ 46.84	N/A	N/A	\$ 43.81	N/A	\$ 43.61	N/A	N/A	Auction held Sept 21, 2020
FirstEnergy	Met-Ed	N/A	\$ 58.91	\$ 57.52	N/A	\$ 54.75	\$ 54.86	N/A	N/A	N/A	Auction held Nov 16, 2020
FirstEnergy	Penelec	N/A	\$ 54.80	\$ 53.86	N/A	\$ 54.80	\$ 54.01	N/A	N/A	N/A	Auction held Nov 16, 2020
FirstEnergy	Penn Power	N/A	\$ 63.34	\$ 61.48	N/A	N/A	N/A	N/A	N/A	N/A	Auction held Nov 16, 2020
FirstEnergy	West Penn Power	N/A	\$ 49.48	\$ 47.76	N/A	\$ 45.88	\$ 45.01	N/A	N/A	N/A	Auction held Nov 16, 2020
	PECO	N/A	\$ 50.66	\$ 50.84	N/A	\$ 48.01	\$ 47.55	N/A	N/A	N/A	Oct 1, 2020 PUC approved (auction likely two days prior)
	PPL		\$ 43.71	\$ 43.88	N/A	\$ 43.44	\$ 42.46	N/A	N/A	N/A	Auction held Oct 6, 2020, included AECs
FirstEnergy	Duquesne	N/A	\$ 40.23	\$ 44.00	N/A	\$ 40.43	\$ 42.64	\$ 35.72	\$ 2.50	N/A	Auction held Mar 16, 2020
FirstEnergy	Met-Ed	N/A	\$ 49.09	\$ 52.12	N/A	\$ 47.93	\$ 50.80	N/A	N/A	N/A	Auction held April 20, 2020
FirstEnergy	Penelec	N/A	\$ 46.85	\$ 49.02	N/A	\$ 47.32	\$ 49.45	N/A	N/A	N/A	Auction held April 20, 2020
FirstEnergy	Penn Power	N/A	\$ 52.36	\$ 57.09	N/A	\$ 53.90	\$ 58.90	N/A	N/A	N/A	Auction held April 20, 2020
FirstEnergy	West Penn Power	N/A	\$ 42.31	\$ 45.39	N/A	\$ 40.78	\$ 44.88	N/A	N/A	N/A	Auction held April 20, 2020
	PECO	N/A	\$ 49.33	\$ 48.98	N/A	\$ 46.11	\$ 45.67	N/A	\$ 2.96	N/A	Mar 11, 2020 PUC approved (auction likely two days prior)
	PPL		\$ 32.50	\$ 38.67	N/A	\$ 33.12	\$ 38.43	N/A	N/A	\$ 3.10	Auction held April 7, 2020, included AECs
FirstEnergy	Duquesne	N/A	\$ 44.54	\$ 45.44	N/A	\$ 42.83	\$ 43.00	\$ 49.22	N/A	N/A	Auction held Sept 9, 2019
FirstEnergy	Met-Ed	N/A	\$ 50.83	N/A	N/A	\$ 48.52	N/A	N/A	N/A	N/A	Auction held Oct 28, 2019
FirstEnergy	Penelec	N/A	\$ 47.07	N/A	N/A	\$ 47.14	N/A	N/A	N/A	N/A	Auction held Oct 28, 2019
FirstEnergy	Penn Power	N/A	\$ 55.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Auction held Oct 28, 2019
FirstEnergy	West Penn Power	N/A	\$ 44.10	N/A	N/A	\$ 43.13	N/A	N/A	N/A	N/A	Auction held Oct 28, 2019
	PECO	N/A	\$ 49.81	\$ 50.78	N/A	\$ 46.95	\$ 47.68	N/A	N/A	N/A	Sept 26, 2019 PUC approved (auction likely two days prior)
	PPL		\$ 49.64	\$ 43.66	N/A	\$ 47.80	\$ 41.30	N/A	N/A	N/A	Auction held Oct 8, 2019, included AECs
FirstEnergy	Duquesne	N/A	\$ 50.04	\$ 48.25	N/A	\$ 47.90	\$ 46.30	\$ 45.43	\$ 0.98	N/A	Auction held Mar 18, 2019
FirstEnergy	Met-Ed	N/A	\$ 53.73	\$ 53.21	N/A	\$ 51.35	\$ 50.83	N/A	N/A	N/A	Auction held April 29, 2019
FirstEnergy	Penelec	N/A	\$ 51.00	\$ 50.45	N/A	\$ 51.08	\$ 50.01	N/A	N/A	N/A	Auction held April 29, 2019
FirstEnergy	Penn Power	N/A	\$ 60.19	\$ 58.34	N/A	\$ 61.45	\$ 60.87	N/A	N/A	N/A	Auction held April 29, 2019
FirstEnergy	West Penn Power	N/A	\$ 49.17	\$ 47.61	N/A	\$ 48.71	\$ 47.54	N/A	N/A	N/A	Auction held April 29, 2019
	PECO	N/A	\$ 50.17	\$ 53.03	N/A	\$ 47.87	\$ 50.19	N/A	\$ 2.85	N/A	Mar 14, 2019 PUC approved (auction likely two days prior)
	PPL		\$ 42.75	\$ 47.76	N/A	\$ 41.26	\$ 45.50	N/A	N/A	\$ 2.96	Auction held April 9, 2019, included AECs
FirstEnergy	Duquesne	N/A	\$ 55.43	\$ 51.34	N/A	\$ 50.99	\$ 48.05	\$ 58.65	N/A	N/A	Auction held Sept 24, 2018
FirstEnergy	Met-Ed	N/A	\$ 52.29	\$ 51.71	N/A	\$ 51.49	\$ 50.33	N/A	N/A	N/A	Auction held Oct 29, 2018
FirstEnergy	Penelec	N/A	\$ 50.61	\$ 49.47	N/A	\$ 50.45	\$ 49.31	N/A	N/A	N/A	Auction held Oct 29, 2018
FirstEnergy	Penn Power	N/A	\$ 60.38	\$ 58.80	N/A	N/A	N/A	N/A	N/A	N/A	Auction held Oct 29, 2018
FirstEnergy	West Penn Power	N/A	\$ 48.96	\$ 47.35	N/A	\$ 49.55	\$ 48.00	N/A	N/A	N/A	Auction held Oct 29, 2018
	PECO	N/A	\$ 56.95	\$ 54.89	N/A	\$ 53.62	\$ 51.51	N/A	N/A	N/A	Sept 27, 2018 PUC approved (auction likely two days prior)
	PPL		\$ 58.73	\$ 50.64	N/A	\$ 58.01	\$ 48.76	N/A	N/A	N/A	Auction held Oct 9, 2018, included AECs
FirstEnergy	Duquesne	N/A	\$ 56.62	\$ 52.05	N/A	\$ 53.02	\$ 49.13	\$ 50.86	\$ 0.91	N/A	Auction held Mar 19, 2018
FirstEnergy	Met-Ed	N/A	\$ 57.19	N/A	N/A	\$ 54.35	N/A	N/A	N/A	N/A	Auction held Apr 9, 2018
FirstEnergy	Penelec	N/A	\$ 54.00	N/A	N/A	\$ 53.97	N/A	N/A	N/A	N/A	Auction held Apr 9, 2018
FirstEnergy	Penn Power	N/A	\$ 65.84	N/A	N/A	\$ 63.85	N/A	N/A	N/A	N/A	Auction held Apr 9, 2018

**Exhibit AC-5  
Full-Requirements Procurements Comparison**

FirstEnergy	West Penn Power	N/A	\$ 54.92	N/A	N/A	\$ 55.20	N/A	N/A	N/A	Auction held Apr 9, 2018
	PECO	N/A	\$ 60.06	\$ 53.49	N/A	\$ 56.92	\$ 50.66	N/A	\$ 2.24	Mar 15, 2018 PUC approved (auction likely two days prior)
	PPL	\$ 47.32	\$ 51.57	N/A	\$ 46.48	\$ 49.84	N/A	N/A	\$ 2.80	Auction held April 10, 2018, included AECs
	Duquesne	N/A	\$ 53.41	\$ 51.19	N/A	\$ 49.77	\$ 47.75	\$ 52.44	N/A	Auction held Sept 11, 2017
FirstEnergy	Met-Ed	N/A	\$ 54.92	N/A	N/A	\$ 55.79	N/A	N/A	N/A	Auction held Oct 30, 2017
FirstEnergy	Penelec	N/A	\$ 52.45	N/A	N/A	\$ 53.98	N/A	N/A	N/A	Auction held Oct 30, 2017
FirstEnergy	Penn Power	N/A	\$ 59.89	N/A	N/A	\$ 66.74	N/A	N/A	N/A	Auction held Oct 30, 2017
FirstEnergy	West Penn Power	N/A	\$ 52.16	N/A	N/A	\$ 51.95	N/A	N/A	N/A	Auction held Oct 30, 2017
	PECO	N/A	\$ 55.20	\$ 53.73	N/A	\$ 51.59	\$ 50.06	N/A	N/A	Sept 28, 2017 PUC approved (auction likely two days prior)
	PPL	\$ 51.91	\$ 49.72	N/A	\$ 52.97	\$ 49.25	N/A	N/A	N/A	Auction held Oct 10, 2017, included AECs
	Duquesne	N/A	\$ 54.54	\$ 54.41	N/A	\$ 49.99	\$ 49.83	\$ 48.15	\$ 1.22	Auction held March 23, 2017
FirstEnergy	Met-Ed	N/A	\$ 57.91	\$ 58.44	N/A	\$ 56.76	\$ 56.18	N/A	N/A	Auction held April 12, 2017
FirstEnergy	Penelec	N/A	\$ 53.99	\$ 54.25	N/A	\$ 54.91	\$ 54.59	N/A	N/A	Auction held April 12, 2017
FirstEnergy	Penn Power	N/A	\$ 59.86	\$ 57.94	N/A	\$ 63.47	N/A	N/A	N/A	Auction held April 12, 2017
FirstEnergy	West Penn Power	N/A	\$ 55.63	\$ 54.27	N/A	\$ 52.89	\$ 53.11	N/A	N/A	Auction held April 12, 2017
	PECO	N/A	\$ 54.42	\$ 56.85	N/A	\$ 51.90	\$ 54.56	N/A	\$ 2.78	Mar 17, 2017 PUC approved (auction likely two days prior)
	PPL	\$ 50.76	\$ 53.93	N/A	\$ 49.48	\$ 53.21	N/A	N/A	\$ 2.92	Auction held April 4, 2017, included AECs

## VERIFICATION

I, ANDY CASTANARO, being the Mgr-Energy Procurement at PPL Services Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 03/11/2024

Andy Castanaro  
Andy Castanaro (Mar 11, 2024 09:50 EDT)

Andy Castanaro

**BEFORE THE**  
**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. P-2024-\_\_\_\_\_**

**PPL Electric Utilities Corporation**

**Statement No. 2**

**Direct Testimony of A. Joseph Cavicchi**

Topics Addressed:      Lessons Learned from DSP V  
                                 Product Description  
                                 Procurement Plan  
                                 Prudent Mix and Least Cost Over Time

**March 12, 2024**

1 **I. QUALIFICATIONS, INTRODUCTION, AND SUMMARY**

2 **Q. Please state your full name and business address.**

3 A. My name is A. Joseph Cavicchi. My business address is 111 Huntington Avenue, Boston,  
4 MA 02199.

5  
6 **Q. Who is your employer and what is your position?**

7 A. I am employed by Analysis Group as a Vice President.

8  
9 **Q. Please briefly describe the services provided by Analysis Group.**

10 A. Analysis Group's energy and environment practice area is distinguished by expertise in  
11 economics, finance, market modeling and analysis, regulatory issues, and public policy, as  
12 well as deep experience in environmental economics and energy infrastructure  
13 development. Analysis Group has worked for a wide variety of clients, including (among  
14 others) energy producers, suppliers and consumers, utilities, regulatory commissions and  
15 other federal and state agencies, tribal governments, power-system operators, foundations,  
16 financial institutions, and start-up companies.

17  
18 **Q. What are your duties as Vice President?**

19 A. I provide economic analysis and expert testimony related to electricity markets in various  
20 state and federal regulatory proceedings. In particular, I work with clients on a variety of  
21 state regulatory and Federal Energy Regulatory Commission ("FERC") proceedings, and  
22 often file testimony and affidavits supported by economic analyses. Throughout my career  
23 I have been directly involved with corporations, private and public institutions, and state

1 and federal regulatory authorities in connection with the economics of the electricity  
2 industry. For the past 27 years I have been working almost exclusively on the regulatory  
3 economics of the electricity industry, and, in particular, performing economic analyses of  
4 wholesale electricity markets.

5  
6 **Q. What is your educational background?**

7 A. I hold Masters degrees in Technology and Policy and in Environmental Engineering from  
8 the Massachusetts Institute of Technology and Tufts University, respectively.

9  
10 **Q. Have you previously testified as a witness on regulation and competition in the  
11 electricity industry?**

12 A. Yes. I have previously testified on power supply procurement plans in Pennsylvania, Ohio,  
13 and Rhode Island. In addition, I have testified on several occasions regarding wholesale  
14 electricity market competitiveness and design issues at FERC. I have also testified on  
15 qualifying facility pricing policy and wholesale market design policy in the state of  
16 California. Finally, I have written articles on electricity industry structure and issues  
17 associated with procuring wholesale electricity supplies for delivery to retail customers.  
18 Additional detail regarding my credentials and experience can be found in my *curriculum*  
19 *vitae*, which is attached as Appendix A to this testimony.

20  
21 **Q. What is the subject matter of your testimony in this proceeding?**

22 A. My testimony describes and evaluates the competitive procurement program proposed by  
23 PPL Electric Utilities Corporation (“PPL Electric” or “Company”) in its Petition for

1 Approval of a Default Service Program and Procurement Plan (“DSP VI” or “DSP VI  
2 Program”), filed with the Pennsylvania Public Utility Commission (“PUC” or  
3 “Commission”) on March 12, 2024, to procure default service supply for non-shopping  
4 customers from June 1, 2025, through May 31, 2029.<sup>1</sup> Consistent with the Commission’s  
5 policy on the provision of default service, PPL Electric is proposing a Default Service  
6 program that: (1) establishes a procurement plan for acquiring generation and Alternative  
7 Energy Credit (“AEC”) supplies; (2) provides an implementation plan that identifies the  
8 schedules and technical requirements of these supply procurements; (3) provides a rate  
9 design plan; and (4) is designed to meet the requirements set forth in Pennsylvania’s Act  
10 129 of 2008, P.L. 1592, as codified in 66 Pa.C.S. Chapter 28.<sup>2</sup>

11  
12 **Q. Please describe PPL Electric’s proposed DSP VI Program.**

13 A. The central objective of PPL Electric’s proposed DSP VI Program is to obtain a portfolio  
14 of default service supply contracts that provide power for non-shopping customers from  
15 June 1, 2025, through May 31, 2029. To meet this objective, PPL Electric proposes to  
16 continue to use a portfolio of laddered fixed-price, full-requirements, load-following  
17 electricity supply contracts (including AECs) to meet the majority of the demand of its  
18 Residential, and all of the demand of its Small Commercial and Industrial (“Small C&I”),  
19 customers, and a full requirements, load-following, spot market service to meet the demand  
20 of its Large Commercial and Industrial (“Large C&I”) customers. However, to provide  
21 Residential and Small C&I customers a more stable default service rate, the proposed DSP

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<sup>1</sup> *Petition of PPL Electric Utilities Corporation for Approval of a Default Service Program and Procurement Plan for the Period June 1, 2025 through May 31, 2029*, Filed on March 12, 2024 (hereinafter “Petition”).

<sup>2</sup> See 66 Pa. C.S. § 2807(e).

1 VI portfolio of products modifies the DSP V product mixture by substituting 24-month  
2 term fixed-price, full requirements supply products for DSP V's 6-month, and a portion of  
3 12-month, supply products. DSP VI also proposes to restore the procurement of most  
4 AECs as part of the full-requirements product procurement and obtain new long-term  
5 energy supply contracts for the Residential Customer Class to replace two current long-  
6 term block energy supply contracts that expire in 2026 (one and a half years after the start  
7 date of DSP VI). As I explain herein, PPL Electric's proposal provides a clear, logical  
8 procurement plan that recognizes the recent experience PPL Electric has had with DSP V.

9  
10 **Q. What are full requirements, load-following electricity supply products and why is**  
11 **PPL Electric proposing to continue using these products for the provision of default**  
12 **service?**

13 A. A full requirements, load-following ("full requirements") electricity supply product  
14 obligates a wholesale electricity seller to supply a fixed percentage (referred to as a  
15 "tranche") of PPL Electric's default service hourly load during every hour of a product's  
16 term. By assuming this obligation, sellers are responsible for managing the acquisition of  
17 energy, capacity, transmission (other than non-market-based transmission services),  
18 ancillary services, transmission and distribution losses, congestion management costs, and  
19 AECs to meet default service customers' hourly loads. The pricing for a full requirements  
20 product is specified based on the type of default service load being supplied. For PPL  
21 Electric's Residential and Small C&I customers, the price is fixed for the term of the  
22 product and does not vary regardless of the number of default service customers or hourly  
23 load being served. Thus, a fixed-price full requirements product provides PPL Electric's

1 smaller Default Service customers with reasonably stable rates that change in response to  
2 power market changes as contracts expire and are replaced.

3 To reduce abrupt pricing changes, PPL Electric staggers, or ladders, procurements  
4 for Residential and Small C&I Customer Classes to avoid situations where all contracts  
5 expire at the same time. For PPL Electric’s Large C&I customers, the full requirements  
6 product is procured once per year, and pricing includes an energy component that varies  
7 hourly based on changes in hourly wholesale electricity prices (commonly referred to as  
8 “spot” market pricing). Because the majority of PPL Electric’s larger customers obtain  
9 electric supply service tailored to their needs from retail power providers, the full  
10 requirements spot market product has proven to be the best approach to providing large  
11 customers default service. Several power suppliers compete to provide full requirements,  
12 load-following products, and PPL Electric has used these products successfully in all of its  
13 default service supply procurement plans.

14  
15 **Q. What guided the development of PPL Electric’s proposed DSP VI Program?**

16 A. Pennsylvania’s Act 129, the Commission’s Final Policy Statement in *Proposed Policy*  
17 *Statement Regarding Default Service and Retail Electric Markets*,<sup>3</sup> its Final Order in  
18 *Investigation of Pennsylvania’s Retail Electricity Market: End State of Default Service*,<sup>4</sup>  
19 and the Company’s experience with the Competitive Bridge Plan, DSP I, DSP II, DSP III,

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<sup>3</sup> Final Policy Statement, *Proposed Policy Statement Regarding Default Service and Retail Electric Markets*, Docket No. M-2009-2140580, September 23, 2011 (hereinafter “DS Policy Statement”). In particular, the details of the policy are stated in Title 52 Pa. Code §§ 69.1802-69.1817, Public Utilities, Part I. Public Utility Commission, Subpart C. Fixed Service Utilities, Chapter 69, General Orders, Policy Statements and Guidelines on Fixed Utilities, Default Service and Retail Electric Market – Statement of Policy.

<sup>4</sup> *Investigation of Pennsylvania’s Retail Electricity Market: End State of Default Service*, Docket No. I-2011-2237952 (Final Order entered February 15, 2013) (hereinafter “Final ES Order”).

1 DSP IV, and DSP V guided the development of PPL Electric’s DSP VI. Consistent with  
2 Act 129 and PUC policy, the proposed DSP VI Program ensures that default service  
3 customers will receive adequate and reliable electricity supply at least cost over time while  
4 maintaining support for the competitive retail market.

5 Two important objectives were carefully considered when developing the proposed  
6 DSP VI Program. First, to be consistent with the Commission’s policy outlined in its DS  
7 Policy Statement<sup>5</sup> and additional guidance provided in its Final ES Order,<sup>6</sup> PPL Electric’s  
8 DSP VI continues semiannual competitive procurement of a laddered portfolio of supply  
9 products with differing terms. However, DSP VI emphasizes price stability by  
10 transitioning from a mix of 6- and 12-month products to a mix of 12- and 24-month  
11 products. Thus, based on experience with DSP V and consistent with the Commission’s  
12 DS Policy Statement, DSP VI continues to strike a balance by providing reasonably  
13 frequent price adjustment without exposing customers to unacceptable price volatility,  
14 while facilitating retail customers seeking service from Electric Generation Suppliers  
15 (“EGSs”). Second, the procurements are designed to overlap into future DSP programs, to  
16 avoid having to procure 100% of requirements at any point in the future. Should the  
17 Company no longer serve as the default service provider, PPL Electric’s DSP VI is  
18 designed to allow the Company to modify the contract terms of its proposed final DSP VI  
19 default service procurement to provide a smooth transition if necessary.

20  
21 **Q. Please summarize your conclusions.**

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<sup>5</sup> 52 Pa. Code §§ 69.1802 and 69.1805.

<sup>6</sup> Final ES Order at pp. 29-32 and 41-43.

1 A. In my expert opinion as an economist, I believe the proposed DSP VI Program represents  
2 a prudent default service product mixture, procured at least cost over time, which will  
3 ensure that customers receive the benefits of competition in regional wholesale electricity  
4 markets while supporting retail competition in Pennsylvania. The heart of PPL Electric's  
5 DSP VI is its portfolio of power supply products that will provide default service customers  
6 with competitively priced power supplies. PPL Electric's DSP VI product portfolio  
7 provides for customer rates to change on a semiannual basis (and more frequently for larger  
8 customers), provides customers opportunities to assess competitive retail opportunities,  
9 and guards against excessive price volatility. Finally, PPL Electric's DSP VI relies on full  
10 requirements products that have a proven record for supplying default service, and  
11 proposes to obtain these products through transparent competitive solicitations that have  
12 been widely successful in all the Company's default service procurement plans to date, and  
13 elsewhere throughout Pennsylvania and the Mid-Atlantic U.S.

14

15 **Q. Please summarize the following sections of your testimony.**

16 A. In my testimony, I first review additional lessons learned from PPL Electric's experience  
17 with DSP V. Next, I describe the Company's proposed DSP VI Program's product  
18 portfolio for each customer group. I then evaluate the proposed DSP VI Program and  
19 explain why the plan is a reasonable approach to procuring default service supply in a  
20 manner that is consistent with Act 129's requirements and the Commission's Orders. In  
21 particular, I address why the product portfolio constitutes a "prudent mix" that will ensure  
22 "least cost over time" to non-shopping customers while continuing to support the  
23 competitive retail market.

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**II. LESSONS LEARNED FROM PPL ELECTRIC’S DSP V**

**Q. Please provide a brief overview of PPL Electric’s existing DSP V.**

A. For Residential customers, PPL Electric’s current DSP V obtains a portfolio of laddered fixed-price, full requirements supplies plus long-term block power supply.<sup>7</sup> For Small C&I customers, PPL Electric’s current DSP V also obtains a portfolio of laddered fixed-price, full requirements, load-following supplies. Under DSP V, the Company purchases laddered full requirements power supply products with 6- and 12-month contract terms for its non-shopping Residential and Small C&I customers. For its Large C&I customers, PPL Electric’s current DSP V provides a full requirements spot market power supply to meet the default service demand of those customers electing to receive such service. Finally, under DSP V, the Company separately procured AECs for its default service load through two solicitations per year.

**Q. Is there evidence that the auction process used to solicit the fixed-price, full requirements product types within DSP V provides least-cost supplies?**

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<sup>7</sup> Under DSP V, PPL Electric’s Residential default service supply mixture includes two long-term 50 MW energy contracts that equate to a 100 MW energy block, as explained in the Direct Testimony of Andrew Castanaro, PPL Electric Statement No. 1. Both contracts end during DSP VI, with the first 50 MW block contract ending May 31, 2026, and the second ending November 30, 2026. Prior to DSP V, PPL Electric also included a 50 MW, 10-year unit contingent energy contract similar to what the Company proposes for DSP VI (*see* Tentative Order, *Petition of PPL Electric Utilities Corporation for Expedited Approval to Procure a Long-Term, 50 MW Block of Default Supply for Residential Customers Pursuant to the Settlement of the Default Service Procurement Plan*, Docket Nos. P-2010-2213354 and P-2008-2060309, available at <https://www.pplelectric.com/-/media/PPLElectric/At-Your-Service/Docs/Default-Service-Suppliers/DSPP-Regulatory-Filings/LongtermProductTentativeOrder.pdf> and <https://www.pplelectric.com/-/media/PPLElectric/At-Your-Service/Docs/Default-Service-Suppliers/DSPP-Regulatory-Filings/LongtermProductApproval.pdf>).

1 A. Yes. With respect to the fixed-price, full requirements product types within DSP V's  
2 product portfolio, PPL Electric has successfully procured these products numerous times  
3 (going back to July 2007, when PPL Electric first began procuring supplies for its  
4 Competitive Bridge Plan, through its most recent DSP V solicitation). The results from  
5 PPL Electric's auctions, as well as those of numerous similar auctions conducted by  
6 Pennsylvania, Maryland, and New Jersey utilities during the past several years for these  
7 products, confirm that these default service products draw numerous competitors and that  
8 multiple bidders are successful suppliers.<sup>8</sup> Competition disciplines the prices offered by  
9 suppliers and drives competitors to innovate and find methods to deliver services at lower  
10 costs to buyers than their rivals. The evidence shows that there is substantial competition  
11 to supply the fixed-price, full requirements products.<sup>9</sup>

12  
13 **Q. How have the Company's default service rates varied under the DSP V product**  
14 **mixture?**

15 A. PPL Electric Exhibit JC-1 plots the Company's fixed-price, full requirements power supply  
16 auction prices and Price-to-Compare ("PTC") for Residential and Small C&I customers  
17 over recent years.<sup>10</sup> PPL Electric Exhibit JC-1 shows that over the past several years the

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<sup>8</sup>See, e.g., "Electric Supply Auction Results," BGE, available at <https://www.bge.com/MyAccount/MyBillUsage/Pages/ElectricSupplyAuctionResults.aspx>; "SOS Public Disclosure of Information," Pepco, available at <https://www.pepco.com/DoingBusinessWithUs/Pages/SOSPublicDisclosureofInformation.aspx>; "MD SOS RFP: Previous Solicitation Results," FirstEnergy, available at [https://www.firstenergycorp.com/upp/md/power\\_procurements/mdsosrfp/archive.html](https://www.firstenergycorp.com/upp/md/power_procurements/mdsosrfp/archive.html).

<sup>9</sup> More detailed empirical analysis of the results of the Company's power procurements shown in PPL Electric Exhibits JC-4 and JC-5 reinforces the benefits of relying on fixed-price, full-requirements products.

<sup>10</sup> PPL Electric's PTC includes additional costs incurred by the Company to provide default service, including a transmission services charge, reconciliation adjustment, and state tax adjustment surcharge. For residential customers, the PTC includes the average fixed-price, full-requirements power supply and block supply price. For DSP V, the PTC also includes the cost of separately procured AECs.

1 Company's fixed-price power supply pricing for its non-shopping customers reasonably  
2 tracked wholesale power market changes through the underlying mixture of wholesale  
3 contracts. However, Exhibit JC-1 also shows that during the term of DSP V, wholesale  
4 power prices increased and decreased significantly. During the period between December  
5 2021 and February 2024, electricity prices were notably more volatile when compared to  
6 prior DSP periods. In particular, the Russia-Ukraine war profoundly impacted global  
7 natural gas supply and pricing, which increased electricity price volatility in U.S. power  
8 markets, especially in Mid-Atlantic States where natural gas electricity generation plants  
9 typically set marginal electricity prices.<sup>11</sup> Under DSP V, PPL Electric's default power  
10 supply product mixture increased default service price volatility by repricing a large  
11 quantity of PPL Electric's default service load in each Company procurement.

### 13 **III. PPL ELECTRIC'S PROPOSED DSP VI PROGRAM**

#### 14 **A. OVERVIEW, PRODUCT DESCRIPTIONS, AND PROCUREMENT PLAN**

#### 15 **Q. Please provide an overview of PPL Electric's proposed DSP VI Program.**

16 A. For its Residential and Small C&I default service customers, PPL Electric's DSP VI  
17 envisions relying primarily on a portfolio of laddered fixed-price, full requirements  
18 supplies.<sup>12</sup> In particular, for its non-shopping Residential and Small C&I customers, DSP  
19 VI provides for the purchase of fixed-price, full-requirements power supply products with  
20 12- and 24-month contract terms using a laddering approach. DSP VI's reliance on 12-

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<sup>11</sup> See e.g., Knakmuhs, Heath, "An Unprecedented Increase in Electricity Rates Across the Nation Defines Our 2022 Electricity Price Map", U.S Chamber of Commerce Global Energy Institute, April 13, 2023, available at <https://www.globalenergyinstitute.org/unprecedented-increase-electricity-rates-across-nation-defines-our-2022-electricity-price-map>; "Pennsylvania," U.S. Energy Information Administration, December 21, 2023, available at <https://www.eia.gov/state/analysis.php?sid=PA>.

<sup>12</sup> See PPL Electric Statement No. 1, pp. 20-21. The 150 MW block product will not procure AECs.

1 and 24-month products reflects an adjustment to the 6- and 12-month default service  
2 procurement program used to provide default supply during DSP V.

3 For Large C&I customers, DSP VI will continue the approach taken in DSP V and  
4 provide for the purchase of power supply pursuant to full requirements, load-following  
5 contracts with an energy component that reflects wholesale electricity spot market prices  
6 on a real-time hourly basis. These contracts will meet the default service demand of those  
7 customers electing to receive such service. To be clear, products to supply each customer  
8 group (*i.e.*, Residential, Small C&I, and Large C&I) will be procured separately.

9  
10 **1. Residential and Small C&I Customers**

11 **Q. How is the proposed DSP VI Program structured for Residential customers?**

12 A. PPL Electric Exhibit JC-2 shows DSP VI's product portfolio and procurement schedule.  
13 For Residential customers, DSP VI is composed primarily of a portfolio of 12- and 24-  
14 month fixed-price, full-requirements (including AECs) products procured semiannually.  
15 There is a transition period at the start of the DSP VI period in 2025 where 6- and 12-month  
16 products are phased out and replaced with 24-month products. In the 2025 transition  
17 period, the February 2025 solicitation, for service beginning June 1, 2025, will procure  
18 10% of the power supply under a 6-month contract, 30% under two 12-month contracts,  
19 and 20% under a 24-month contract. Next, the July 2025 solicitation for service beginning  
20 December 1, 2025, will procure 30% under two 12-month contracts, and 20% under a 24-  
21 month contract. All subsequent semiannual solicitations will procure 10% of the power  
22 supply under a 12-month contract and 20% under a 24-month contract (power supply to  
23 meet the default service load that remains after deducting any long-term block supply

1 products procured in the Company’s proposed long-term product RFPs). The 12- and 24-  
2 month products overlap, so at any one time 80% of the Residential supply is provided under  
3 24-month contracts, and 20% under 12-month contracts.

4 In addition, similar to the block energy procurements that the Company has relied  
5 upon in the past to meet its Residential customers’ default service load, under DSP VI the  
6 Company includes a proposed RFP process to solicit long-term power supply.<sup>13</sup> The  
7 Company proposes to procure 150 MW of energy and capacity through 10-year term, fixed  
8 price and fixed volume contracts with generation resources located in PJM Interconnection  
9 LLC’s (“PJM”) MAAC region.<sup>14</sup> The Company also proposes to procure separately those  
10 additional AECs required in association with the long-term block supply to ensure  
11 compliance with the Alternative Energy Portfolio Standards Act (“AEPS Act”). Those  
12 procurements will be, in part, through the 20-year contracts to procure PA Solar AECs and  
13 through once per year AEC-only auctions.

14 Under the proposed DSP VI Program, default service power supply is regularly  
15 repriced to capture changes in market conditions and reduce customer exposure to  
16 excessive price volatility. DSP VI is structured so that, following its completion, PPL  
17 Electric will have one set of 12-month, and three sets of 24-month default service supplies  
18 (70% of the default service load) under contract at the end of the DSP VI period and an

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<sup>13</sup> See PPL Electric Statement No. 1, pp. 6-7, 15-18. These proposed new long-term power supply contracts will replace the current 100 MW block energy purchases that expire in 2026 (50 MW expire May 31, 2026, and 50 MW expire November 30, 2026).

<sup>14</sup> PPL Electric Statement No. 1, pp. 15-18. The Mid-Atlantic Area Council (“MAAC”) comprises portions of the mid-Atlantic states, including territories serviced by Atlantic City Electric, BGE, Delmarva Power, Jersey Central Power & Light, Met-Ed, PECO, Penelec, Pepco, PPL, PSE&G, and Rockland Electric. See “PJM Successfully Clears Capacity Auction to Ensure Reliable Electricity Supplies”, PJM, June 2, 2021, available at <https://www.pjm.com/-/media/about-pjm/newsroom/2021-releases/20210602-pjm-successfully-clears-capacity-auction-to-ensure-reliable-electricity-supplies.ashx>.

1 overhang of 150 MW of block energy supply that extends 7 years beyond the end date of  
2 DSP VI.<sup>15</sup>

3  
4 **Q. How is the proposed DSP VI Program structured for Small C&I customers?**

5 A. For Small C&I customers, DSP VI proposes to use the supply portfolio of 12- and 24-  
6 month fixed-price, full requirements power supply products procured semiannually with a  
7 similar transition period as described above for Residential customers. To account for the  
8 DSP V product mixture for Small C&I customers, in the 2025 transition period, the  
9 February 2025 solicitation will procure 25% of the power supply under a 6-month contract,  
10 30% under two 12-month contracts, and 20% under a 24-month contract. PPL Electric  
11 Exhibit JC-3 shows DSP VI's product portfolio and procurement schedule for the Small  
12 C&I customer group.

13  
14 **Q. Why is the proposed DSP VI Program's product mixture for Small C&I customers  
15 similar to Residential customers?**

16 A. The proposed DSP VI Program approach for the Small C&I customers recognizes that  
17 these non-shopping Small C&I customers collectively represent PPL Electric's lowest-load  
18 customers in this rate class. The incidence of shopping for these lower-load customers is  
19 notably less than for larger-load Small C&I customers. In particular, OCA shopping  
20 statistics show that almost 96,000 commercial customers, out of a total of approximately

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<sup>15</sup> See PPL Electric Exhibit JC-2.

1 190,000 customers, are shopping and represent approximately 80% of the load.<sup>16</sup> Based  
2 upon this information, we can conclude that the remaining non-shopping customers,  
3 representing approximately 20% of the load, are customers with much lower loads.<sup>17</sup> Thus,  
4 the reasoning supporting the Small C&I product mixture is similar to that for the  
5 Residential plan.<sup>18</sup> That is, DSP VI provides a continued reliance on shorter-term fixed-  
6 price, full requirements products. Moreover, the PUC’s DS Policy Statement allows for a  
7 similar mixture of products for these two customer groups, and using an approach that  
8 mirrors the Residential plan simplifies the procurement process.<sup>19</sup>

9  
10 **Q. When will the DSP VI products for Residential and Small C&I customers be**  
11 **solicited?**

12 A. The semiannual solicitations envisioned under DSP VI will procure the 12- and 24-month  
13 products approximately four to five months prior to delivery. Under DSP VI, the Company  
14 proposes to commence its default service supply solicitations in February and July, rather  
15 than April and October as was done in DSP V.<sup>20</sup> While this modification modestly extends  
16 the lead time between RFP completion and energy supply delivery commencement, the

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<sup>16</sup> “Electric Shopping Statistics,” Pennsylvania Office of Consumer Advocate, available at <https://www.oca.pa.gov/electric-shopping-guide-2/>. (“*Electric Shopping Statistics*”). I understand that the OCA’s definition of commercial customers for the purposes of tracking shopping statistics closely matches the Company’s definition of Small C&I customers.

<sup>17</sup> In other words, these remaining customers total approximately 94,000 customers and represent only 20% of the load. Thus, the per-customer load of the non-shopping commercial customers, on average, is much smaller when compared to the approximately 96,000 shopping customers who represent 80% of the load.

<sup>18</sup> The Company has not historically procured a block energy product as part of its default service wholesale supply for Small C&I customers.

<sup>19</sup> 52 Pa. Code § 69.1805.

<sup>20</sup> PPL Electric Statement No. 1, p. 18. In addition, the RFP process to procure the long-term block (150 MW) contracts will be completed 8 months before delivery on June 1, 2026. *See* PPL Electric Statement No. 1, p. 17.

1 proposed lead times fall into the middle of the range used by other Pennsylvania electric  
2 distribution companies.<sup>21</sup>

## 3 4 **2. Large C&I Customers**

### 5 **Q. How is the proposed DSP VI Program structured for Large C&I customers?**

6 A. As I describe above, for Large C&I customers, DSP VI obtains the default service supply  
7 for these customers at prices based on the wholesale electricity spot markets (including  
8 AECs). PPL Electric will annually solicit contracts to administer the provision of this spot  
9 market supply. This is practically identical to the approach taken in all the Company's  
10 prior default service plans and, thus, non-shopping Large C&I customers will experience  
11 no change in the structure of their default service.

12 Specifically, PPL Electric proposes to complete single solicitations in February of  
13 each year 2025 through 2028,<sup>22</sup> in which PPL Electric will request competitive offers from  
14 suppliers to manage the provision of its default service spot market supply for a period of  
15 12 months. Customer rates will include the real-time hourly spot market electric energy  
16 prices in the PPL Electric transmission zone; PJM's pre-determined electric capacity  
17 charge in the PPL Electric transmission zone; and a competitive supplier charge that  
18 encompasses all other components of the spot market default service supply necessary for

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<sup>21</sup> PPL Electric's proposed lead times falls within the range of peer utilities in Pennsylvania. For example, power supply delivery lead times vary from one to six months for other Pennsylvania utilities. See PECO Energy Company, Default Service Program Request for Proposals, Table I-3, available at [https://www.pecoprocurement.com/assets/files/0%20DSP%20V%20RFP%20Rules\\_MAR2024%20\(Dec%202021%20posted\).pdf](https://www.pecoprocurement.com/assets/files/0%20DSP%20V%20RFP%20Rules_MAR2024%20(Dec%202021%20posted).pdf); FirstEnergy, Auction Schedule for FirstEnergy's Pennsylvania Default Service Program DSP-VI, available at [https://www.fepaauction.com/Portals/0/Documents/FEPA\\_Auction\\_Products\\_and\\_Schedule\\_DSP-VI.pdf](https://www.fepaauction.com/Portals/0/Documents/FEPA_Auction_Products_and_Schedule_DSP-VI.pdf); Duquesne Light, Auction Schedule for Duquesne Light Default Service Program DSP-IX, available at [https://www.duquesnedsp.com/Portals/0/DUQ\\_Auction\\_Products\\_and\\_Schedule\\_DSP-IX\\_20231215.pdf](https://www.duquesnedsp.com/Portals/0/DUQ_Auction_Products_and_Schedule_DSP-IX_20231215.pdf).

<sup>22</sup> PPL Electric Statement No. 1, p. 23.

1 PPL Electric to satisfy its customer obligations (including AECs), plus the cost of PPL  
2 Electric’s administration costs. Experience has shown that competitive suppliers will make  
3 offers in response to the solicitation, and the successful bidders’ charges will form the basis  
4 of the competitive supplier charge described above.<sup>23</sup>

### 6 3. Alternative Energy Credits

7 **Q. How does the Company propose to procure AECs under DSP VI?**

8 A. The Company proposes to require wholesale power suppliers under the full-requirements  
9 contracts to include AECs as part of the default service supply. Under DSP V, the  
10 Company directly procured AECs on behalf of default service customers through two AEC  
11 solicitations per year, one in January and one in July.<sup>24</sup> However, the Company found that  
12 the AEC direct procurement process did not appear to be necessary to cost-effectively  
13 manage AEC procurement.<sup>25</sup> For DSP VI, the Company proposes to revert to the AEC  
14 procurement approach used in DSP IV. That is, the Company will require default service  
15 suppliers under full requirements contracts to include the provision of AECs as part of the  
16 default service supply obligations. Including AEC obligations as part of the default service  
17 supply is a standard practice used by utilities in Pennsylvania.<sup>26</sup>

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<sup>23</sup> As discussed above, PPL Electric has successfully used this approach to obtaining default service supplies for Large C&I customers in the Competitive Bridge Plan, DSP I, DSP II, DSP III, DSP IV and DSP V. In addition, I note that this service is similar to the commercial and industrial energy product solicited each year as part of New Jersey’s basic generation service auctions.

<sup>24</sup> PPL Electric Statement No. 1, p. 26.

<sup>25</sup> PPL Electric Statement No. 1, pp. 27-29.

<sup>26</sup> For example, PECO’s DSP V outlines that “Default Suppliers are responsible for providing the AECs necessary for PECO to meet its obligations under the AEPS Act.” Similarly, default service suppliers for PECO, Met-Ed, Penelec and Penn Power must provide “AECs needed to meet the non-solar requirements”; (*see* FAQs, PECO Procurement for Default Supply, December 21, 2023, available at <https://pecoprocurement.com/index.cfm?s=supplierInformation&p=faqs&faqCategoryId=3>; PA Default Service Program (DSP IV), FirstEnergy, available at [https://www.firstenergycorp.com/upp/pa/power\\_procurements/pa-default-service-program.html](https://www.firstenergycorp.com/upp/pa/power_procurements/pa-default-service-program.html)).

1           In addition to procuring AECs through the full requirements procurement process,  
2           the Company also proposes to procure up to 30,000 PA Solar AECs through 20-year term  
3           contracts structured to align with the long-term block product, and solicited through two to  
4           three staggered RFP processes.<sup>27</sup> The PA Solar AECs procured must meet AEPS Act  
5           obligations and will be associated with the proposed long-term block power supply  
6           product.

7           Finally, the Company will hold one annual AEC auction in July of each year.<sup>28</sup>  
8           This annual solicitation will cover AEC obligations for the remaining DSP V fixed-price,  
9           full-requirements products and long-term block products in the transition period between  
10          DSP V and DSP VI, and the new DSP VI long-term power supply product not already  
11          covered through the proposed Pennsylvania Solar AEC product. I understand that these  
12          AEC auctions will use the same structure that the Company has used during DSP V.

13  
14          **B.     DSP VI SATISFIES THE “PRUDENT MIX” AND “LEAST COST OVER**  
15          **TIME” REQUIREMENTS PUT FORTH BY ACT 129 AND PUC POLICY**  
16

17          **Q.     Can you please summarize how you have interpreted Act 129 and PUC policy for the**  
18          **purposes of supporting the proposed DSP VI Program?**

19          A.     A primary aspect of Act 129 and PUC policy is the requirement that default service  
20          providers rely on a “prudent mix” of supplies that is the “least cost to customers over time”  
21          while providing default service to customers that is adequate and reliable.<sup>29</sup> At the same

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<sup>27</sup> PPL Electric Statement No. 1, p. 29.

<sup>28</sup> PPL Electric Statement No. 1, pp. 30, 32.

<sup>29</sup> Act 129, 66 Pa. C.S. § 2807(e) 3.4 and 52 Pa. Code §§69.1802 and 69.1805. *See also*, Final Rulemaking Order, *Implementation of Act 129 of October 15, 2008; Default Service and Retail Electric Markets*, Docket No. L-2009-2095604 (October 4, 2011), at p. 40.

1 time, consistent with Act 129, the PUC's policy regarding default service encourages retail  
2 competition.<sup>30</sup> Thus, in my analysis I consider that the structure of a default service  
3 program should strike a balance between avoidance of excessive price volatility and  
4 market-reflective pricing.

5  
6 **Q. How have you interpreted PUC policy with respect to the default service customers**  
7 **in each of PPL Electric's customer classes?**

8 A. I consider customer groupings as defined by PPL Electric in accordance with Commission  
9 policy and evaluate each groupings' product mixture separately.<sup>31</sup> For the Residential  
10 customer grouping, I consider the Company's proposal to procure long-term block  
11 contracts (10-year contracts, 150 MW), that functionally serve as a replacement for the  
12 previously procured long-term block supply products. For the Small C&I customers, I  
13 recognize that most non-shopping customers within these various rate schedules are  
14 primarily PPL Electric's smallest (*i.e.*, lowest load per customer) commercial customers,  
15 whose loads more closely resemble Residential customers than larger commercial and  
16 industrial customers. The Large C&I customer grouping is distinctly different as almost  
17 all this load obtains its supply from competitive retail suppliers. In this way, I am able to  
18 appropriately evaluate a suitable prudent mix for the different customer classes,  
19 recognizing the different risks that the customer classes' loads present to the default service  
20 that PPL Electric provides consistent with PUC policy.

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<sup>30</sup> 66 Pa. C.S. § 2802 (12) and 52 Pa. Code § 69.1802.

<sup>31</sup> 52 Pa. Code § 69.1805.

1 **Q. Can you please summarize why DSP VI’s proposal for Residential and Small C&I**  
2 **customers is appropriate to comply with Act 129 and the PUC’s related orders**  
3 **regarding default service?**

4 A. Consistent with Act 129 and Commission policy, defining a prudent mix requires  
5 consideration of the provision of reliable supply without excessive price volatility over  
6 time, while providing support for retail competition.<sup>32</sup> PPL Electric’s proposed DSP VI  
7 procurement plan for its Residential and Small C&I customers continues to rely on a  
8 mixture of short-term, fixed-price, full requirements power supply products which have a  
9 proven track record as prudent default service products. The proposed DSP VI Program  
10 also includes long-term block power supply products as part of Residential customers’  
11 default service. As I explain in greater detail below, market uncertainty impacts any  
12 particular mixture of power supply products, and it is not possible to know ahead of time  
13 whether one mixture will be less expensive than another mixture. Thus, there can be many  
14 mixtures that will result in customer rates that are consistent with Commission policy.

15 Moreover, Commission policy does not provide an explicit definition regarding the  
16 power supply mix that a default service provider should procure or precisely prescribe how  
17 the supplies must be procured. Instead, Commission policy offers options to the default  
18 service provider as to what types of products and procurement processes are acceptable.<sup>33</sup>  
19 Commission policy recognizes that it is desirable for default service programs to be  
20 structured so as to accommodate incremental changes as more experience is gained with  
21 particular product mixtures, and to balance those changes with the impact of

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<sup>32</sup> Act 129, Legislative Objectives and 52 Pa. Code § 69.1802.  
<sup>33</sup> 52 Pa. Code § 69.1805.

1 Pennsylvania's other policy objectives, including continued support for the competitive  
2 retail market.<sup>34</sup> DSP VI's proposed procurements for PPL Electric's Residential and Small  
3 C&I customers modify DSP V's default service product mixture to reduce consumer price  
4 volatility while continuing to support retail competition. In my opinion it is a reasonable  
5 approach for provision of default service supply by the Company.

6  
7 **Q. Can you please summarize why DSP VI's proposal for Large C&I customers is**  
8 **appropriate to comply with Act 129 and the PUC's related orders regarding default**  
9 **service?**

10 A. As I discuss above, the vast majority of PPL Electric's Large C&I customers and load  
11 continue to be served by competitive suppliers.<sup>35</sup> By continuing to offer default service  
12 with spot market pricing to non-shopping Large C&I customers, these non-shopping  
13 customers will continue to have a strong incentive to consider the competitive offerings  
14 from retail suppliers, whose short- and long-term products will be best suited to their  
15 particular individual needs. Finally, PPL Electric's largest customers have demonstrated  
16 that they are able to consistently obtain power supply from retail suppliers.

17  

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<sup>34</sup> *Id.*

<sup>35</sup> See *Electric Shopping Statistics*. Although the reported shopping statistics do not break down commercial and industrial customers by billing peak demands, the data show that practically all these customers' load is served by EGSs (see above). For example, the share of PPL large industrial load served by an alternative supplier as of January 2024 was 97.80%.

1                   **1.       The Proposed DSP VI Program Provides a “Prudent Mix”**

2   **Q.       Does PPL Electric’s proposed DSP VI Program represent a “prudent mix” under Act**  
3           **129?**

4   A.       Yes. The Company’s proposed DSP VI Program includes each of the default service  
5           product types specified in Act 129. Thus, the Company’s proposed DSP VI Program is  
6           consistent with Act 129’s prudent mix requirement.<sup>36</sup>

7  
8   **Q.       What factors did you take into consideration when evaluating what products**  
9           **constitute a prudent mix for the Company’s two default service customer groupings?**

10 A.       As I explained above, the definition of a prudent mixture takes into account balancing the  
11           objective that default service rates are not unacceptably volatile against continued support  
12           for retail competition. In addition, it is important to select a product mixture that is  
13           expected to be successfully procured from the wholesale markets.

14  
15 **Q.       How do the product types within PPL Electric’s proposed DSP VI Program constitute**  
16           **a “prudent mix” for Residential and Small C&I customers?**

17 A.       For Residential and Small C&I customers, the DSP VI Program’s primary reliance on  
18           fixed-price, full requirements power products with terms of 12- and 24 months will track  
19           ongoing changes in wholesale electricity market prices while guarding against price  
20           volatility. The proposed product mixture will continue to support retail competition while  
21           protecting against various risks that must be addressed by any default service plan. The

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<sup>36</sup> I understand that it is not necessarily the case that a prudent mix must contain all three types of power supply products but note here that the Company’s proposed plan does.

1 combination of 12- and 24-month fixed-price, full requirements products will encourage  
2 price stability by protecting against uncertain future load and potentially volatile wholesale  
3 market prices. These power supply products are well known throughout the industry and  
4 can be competitively procured by PPL Electric to obtain reasonably priced reliable power  
5 supplies for default service.

6  
7 **Q. Can you please explain why the use of fixed-price, full requirements power products**  
8 **continues to remain appropriate for obtaining default service supply for non-**  
9 **shopping Residential and Small C&I customers?**

10 A. The proposed DSP VI Program continues to use a laddering approach whereby fixed-price,  
11 full requirements products are purchased periodically to establish default service pricing  
12 for 6-month periods, albeit using longer-term products, and in doing so, reducing price  
13 volatility. Moreover, competition between wholesale suppliers in the provision of fixed-  
14 price, full requirements products has been robust for several years and ensures that PPL  
15 Electric will be able to obtain supply for default service through these products at  
16 reasonable prices for its customers while minimizing the risks associated with the provision  
17 of default service supply.

18  
19 **Q. What types of risk do wholesale suppliers manage when providing default service?**

20 A. Wholesale suppliers primarily manage the risks associated with offering fixed-price default  
21 service while underlying supply input costs and customer loads can change throughout a  
22 product term. For example, wholesale suppliers agree to meet a fixed percentage of default  
23 service load regardless of the number and type of default service customers and the

1 variance in load that occurs due to seasonal weather changes. Wholesale suppliers also  
2 must manage the costs of default service supply and hedge against possible shifts in fuel  
3 and power markets during the product delivery term. Wholesale suppliers specialize in  
4 managing these risks and compete to provide the lowest-price default service to PPL  
5 Electric’s customers.

6  
7 **Q. Why does the Company include longer-term block power supply products through**  
8 **the procurement of generation contracts as part of the Residential customer class**  
9 **product mixture?**

10 A. The Company proposes to maintain a limited reliance on a longer term supply product.  
11 This product continues to be a part of its overall default service mixture, but is only  
12 included in the Company’s Residential customer product mixture, as it has been  
13 historically.<sup>37</sup> I evaluated the Company’s selection of 150 MW, and I find that it achieves  
14 the Company’s objectives without materially impeding the ability of Residential customers  
15 to obtain supply from competitive retailers. In particular, the proposed supply quantity  
16 represents approximately 14% of the recent annual default service load of the Residential  
17 customer grouping while ensuring that the Company would be unlikely to have to sell a  
18 portion of the block during low load periods.<sup>38</sup> In addition, the block supply provides a  
19 modest reduction in PTC volatility, without materially affecting market responsiveness.

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<sup>37</sup> PPL Electric Statement No. 1, pp. 16-17, 21-22.

<sup>38</sup> Based on default service load data from June 1, 2021 through September 25, 2023 (the available default service data for DSP V). During the same period, the Company’s minimum Residential customer grouping hourly load is approximately 450 MW. See Default Service Load Data, PPL Electric, available at <https://ppldsp.com/data/#load-and-billing-data> (hereinafter “PPL Default Service Load Data”).

1           Finally, I also evaluated and support the Company's continued exclusion of a long-  
2 term block supply product for its Small C&I customers. The Small C&I customer fixed-  
3 price, full requirements product mixture is designed to track market changes closely with  
4 regularly updated PTCs. This structure also ensures that in those instances when customers  
5 move on and off default service their choices minimize the impact on default service  
6 customer rates. Moreover, the load levels of the Company's Small C&I customer grouping  
7 often fall between 100 to 200 MW.<sup>39</sup> Depending upon the portion of Small C&I customer  
8 load that is shopping, even a small block product could become a large portion of the load  
9 in some hours, reduce default service market responsiveness, and impede the opportunities  
10 for EGSs to compete to serve these customers.

11  
12 **Q. Is there any evidence to support your claim that PPL Electric's use of fixed-price, full**  
13 **requirements products has resulted in reasonable prices for customers?**

14 A. Yes. The pricing of the fixed-price, full requirements products is consistent with the actual  
15 prices of underlying wholesale electricity market products at the time the purchases are  
16 made. To show this I have prepared PPL Electric Exhibits JC-4 and JC-5. These exhibits  
17 compare the prices obtained for the various fixed-price, full requirements products serving  
18 the Residential and Small C&I customer groups in the more recent DSP IV and DSP V  
19 solicitations to the estimated costs of each major component of the full-requirements  
20 product obtained separately (not including the costs of overhead and risk management  
21 services, and a competitive profit margin). These components are the cost of energy (based  
22 on contemporaneous forward prices of the same term plus a load-shaping adjustment), the

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<sup>39</sup> PPL Default Service Load Data.

1 cost of capacity (based on the applicable price of capacity established by PJM), the cost of  
2 ancillary services (based on the price of ancillary services reported in PJM's *State of the*  
3 *Market Reports*<sup>40</sup>), and the costs of AECs for DSP IV<sup>41</sup> (based on the prices reported on  
4 the PennAEPS website<sup>42</sup>).

5 As PPL Electric Exhibits JC-4 and JC-5 show, the cost build-up (not including the  
6 expected costs of overhead and risk management services, and a competitive profit margin)  
7 is somewhat less than the full requirements product (which includes all the costs a supplier  
8 expects to incur). On average, across the solicitations, the fixed-price, full requirements,  
9 load-following product prices are slightly higher than the cost build-up (by \$7.87 per MWh  
10 for the Residential customer group and \$6.12 per MWh for the Small C&I group).<sup>43</sup>

11 Next, because estimating the costs a supplier incurs associated with overhead and  
12 risk management services is difficult and subject to each supplier's particular business  
13 structure, I have not tried to estimate these costs for the individual procurements, or tried  
14 to estimate a competitive profit margin. However, analysis suggests that these excluded  
15 costs are in the range of 5% to 11%, and that there is a more than 10% probability of the

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<sup>40</sup> 2014 State of the Market Report for PJM, Monitoring Analytics, LLC, Independent Market Monitor for PJM, March 12, 2015, available at [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2014.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2014.shtml); 2016 State of the Market Report for PJM, Monitoring Analytics, LLC, Independent Market Monitor for PJM, March 9, 2017, available at [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2016.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2016.shtml); 2017 State of the Market Report for PJM, Monitoring Analytics, LLC, Independent Market Monitor for PJM, March 8, 2018 available at [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2017.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017.shtml); 2018 State of the Market Report for PJM, Monitoring Analytics, LLC, Independent Market Monitor for PJM, March 14, 2019 available at [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2018.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2018.shtml); 2019 Q3 Quarterly State of the Market for PJM, Monitoring Analytics, LLC, Independent Market Monitor for PJM, November 14, 2019 available at [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2019.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2019.shtml).

<sup>41</sup> The costs of AECs are excluded from DSP V solicitations, as DSP V procurement did not require Default Service Providers to provide AECs (*see, e.g.*, "Default Service Request for Proposals (RFP) Process and Rules, PPL Electric Utilities Corporation, available at [https://ppldsp.com/wp-content/uploads/2023/02/Default-Service-RFP-Rules\\_27-FEB-2023-1.pdf](https://ppldsp.com/wp-content/uploads/2023/02/Default-Service-RFP-Rules_27-FEB-2023-1.pdf), p.13).

<sup>42</sup> Annual Reports, Pennsylvania Alternative Energy Credit Program, available at <http://www.pennaeps.com/reports/>.

<sup>43</sup> Specifically, I take a simple average of the difference between the auction results and the cost build-up across the 6-month and 12-month products over DSP IV Solicitation 5 to DSP V Solicitation 6.

1 premium exceeding 20%.<sup>44</sup> During the term of the DSP V Program, the difference between  
2 the default service auction prices and the build-up cost estimates was 1.6% to 12.7% for  
3 the first two solicitations, increased to 8.7% to 28.6% for solicitations three to five, and  
4 then declined to 10.5% to 16.5% in the most recent solicitation.

5 The impact of the Russian-Ukrainian war on global natural gas markets clearly  
6 translated into higher costs for default service suppliers. The war's market impacts have  
7 moderated, and the costs associated with overhead and risk management services and a  
8 competitive profit margin have declined to levels that are closely comparable to the actual  
9 default service auction prices. In my opinion, default service pricing based on fixed-price,  
10 full requirements products continues to be competitive and consistent with power market  
11 conditions at the time the supply is procured.

12  
13 **Q. Why have the contract terms been changed for Residential and Small C&I**  
14 **customers?**

15 The Company proposes to rely more on 24-month short-term products to reduce default  
16 service price volatility. Under its proposed DSP VI Program, PPL Electric's supply  
17 portfolio for its Residential and Small C&I default service customers is predominantly  
18 comprised of 24-month fixed-price, full requirements power supply products. Following

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<sup>44</sup> See Faruqui, Ahmad, "Chapter 3: The Ethics of Dynamic Pricing," in Sioshansi, Fereidoon P., *Smart Grid*, 2012, pp. 81-82.

1 an 18-month transition period, 80% of full-requirements supply would be procured through  
2 24-month term products (*See* PPL Electric Exhibits JC-2 and JC-3).

3 The DSP VI Program's proposed 12- and 24-month products can be expected to  
4 improve default service price stability by reducing the wholesale price volatility that was  
5 observed during DSP V. In particular, eliminating 6-month products and relying on the  
6 12- and 24-month products can be expected to reduce the range of default service pricing,  
7 creating more stable customer prices. For example, I can compare the product mixture  
8 impact by assuming that PPL Electric's proposed DSP VI Program product mixture were  
9 in place from the beginning of DSP IV. Doing so, I find that the estimated cost build-up  
10 fixed price range (the difference between the lowest and highest prices) for Residential and  
11 Small C&I full requirements electricity supply is approximately \$27/MWh, versus  
12 approximately \$53/MWh to \$60/MWh under the DSP V product mixture, a difference of  
13 around 100%.<sup>45</sup> While the estimated range I calculate for this period is characterized by  
14 unusually high price volatility due to the impact of the Russian invasion of Ukraine on  
15 wholesale natural gas markets, the use of 24-month products will reduce price volatility,  
16 all else being equal.

17  
18 **Q. Have you considered if the Company's proposed product mixture may impact retail**  
19 **competition?**

---

<sup>45</sup> If I were to assume PPL Electric's proposed DSP VI full-requirements supply portfolio were used for DSP V, the build-up price for Residential and Small C&I full-requirements electricity ranges from \$41/MWh to \$68/MWh and \$40/MWh to \$67/MWh, respectively. Assuming the DSP V load following supply portfolio over the same period, the build-up price for Residential and Small C&I full-requirements electricity ranges from \$37/MWh to \$90/MWh and \$34/MWh to \$94/MWh, respectively.

1 A. Yes. I reviewed Pennsylvania utilities' electric consumer quarterly shopping statistics for  
2 the past several years. While I observe an increase in the percentage of PPL Electric  
3 Residential customers electing to shop following the global fuel market disruption in 2022,  
4 there is no immediately apparent evidence that PPL Electric's DSP IV and V product  
5 mixture materially impacted consumer shopping decisions. See PPL Electric Exhibit JC-  
6 6.<sup>46</sup> From 2016 through March 2022, the share of PPL Electric shopping Residential  
7 customers fell steadily, on average, by 2 percentage points per year. PPL Electric Exhibit  
8 JC-6 also shows that the steady decline in the percentage of Residential customer shopping  
9 in PPL Electric's service territory mirrors the trends at other Pennsylvania utilities relying  
10 on a number of different default service supply product mixtures until March 2022.  
11 Although it is unusual that the notable 2022 price increases at other Pennsylvania utilities  
12 did not lead to increased shopping,<sup>47</sup> the relatively higher PPL Electric default service  
13 prices associated with DSP V's product mixtures procured in 2022 may have resulted in a  
14 targeted effort to persuade default service customers to switch. Regardless of the recent  
15 increased shopping, over the several years that the Company used DSP IV and V's  
16 relatively shorter-term product mixtures, shopping trends largely aligned with those of  
17 other Pennsylvania utilities.

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<sup>46</sup> The percentage of the Company's residential customers electing to shop rose from approximately 33% to 39% following Russia's February 2022 invasion of Ukraine and its impact on worldwide natural gas prices (see *Electric Shopping Statistics*). I assume residential customer shopping behavior is also representative of small C&I customers.

<sup>47</sup> As of June 1, 2022, the residential price at other Pennsylvania utilities also increased significantly (16.1% at Met-Ed; 22.7% at Penn Power, 35.4% at Penelec, and 44.6% at West Penn Power). The Company's 38.3% increase falls into the same range, however Company prices at the time were higher than other State utilities. See "PUC Alerts Consumers of June 1 Price Changes for Electric Generation", Pennsylvania Public Utility Commission, May 9, 2022, p. 3, available at <https://www.puc.pa.gov/press-release/2022/puc-alerts-consumers-of-june-1-price-changes-for-electric-generation>.

1           Moreover, I also examined the terms of EGS supply offerings for the Company's  
2 service territory and analyzed how they compare to the default service supplier product  
3 terms in DSP V and the proposed DSP VI Program. *See* PPL Electric Exhibit JC-7. PPL  
4 Electric Exhibit JC-7 compiles the number of EGS Residential supply offers and the  
5 corresponding offer terms of the supply offers. PPL Electric Exhibit JC-7 shows that 20  
6 of the 25 competitive supply offers are for a term of 12 months or longer (with a range of  
7 12 to 36 months), and that the weighted average term length of the products is 17 months.  
8 In contrast to the DSP V Program's reliance on 6- and 12-month supply products, the DSP  
9 VI Program's proposed 12-month and 24-month default service products are better aligned  
10 with EGS offer terms. Thus, while the DSP V Program's product mixture prices may have  
11 created opportunities to persuade default service customers to shop, the DSP VI Program's  
12 proposed product mixture will continue to provide an opportunity for EGSs to make  
13 competitive offers to default service providers.

14  
15 **Q. Please summarize the results of your analysis of the Company's proposed product**  
16 **mixture change for Residential and small commercial customers.**

17 A. Under PPL Electric's proposed DSP VI Program, the Company's proposed product  
18 mixture can be expected to improve default service price stability while continuing to rely  
19 primarily on fixed-price, full requirements products that regularly incorporate market price  
20 changes. The Company's default service load (less proposed long-term power supply  
21 purchases where relevant) continues to be re-priced through semi-annual solicitations for  
22 non-shopping Residential and Small C&I customers, as was the case under DSP V. This  
23 solicitation structure allows these non-shopping customers to consider offers from

1 competitive retail suppliers for similar term products (those already predominately offered  
2 by competitive suppliers), continuing to support Pennsylvania’s competitive retail  
3 electricity markets. In my opinion, PPL Electric’s proposal is fully consistent with Act 129  
4 and the PUC’s default service policies, and it represents an appropriate prudent mixture of  
5 default service power products for the Company’s Residential and Small C&I customers.  
6

7 **Q. How do the product types within PPL Electric’s proposed DSP VI Program constitute**  
8 **a “prudent mix” for Large C&I customers?**

9 A. In my opinion, the full requirements, spot market power supply product provides non-  
10 shopping Large C&I customers a cost-effective default service that has been consistently  
11 available from competitive wholesale suppliers. By using a spot market product, PPL  
12 Electric protects Large C&I customers from the risks of high costs that could result if  
13 longer-term products were purchased, which would require bidders to incorporate into their  
14 prices the uncertainty associated with shopping customers possibly returning to default  
15 service. For example, almost all of the Company’s Large C&I customers are shopping (see  
16 above). Moreover, a spot market-priced service provides default service customers the  
17 opportunity to shop without restrictions. Company experience has shown that the full-  
18 requirements, spot market product facilitates retail competition and has been a consistently  
19 successful default service product.  
20

21 **2. The Proposed DSP VI Program Ensures “Least Cost Over Time”**

22 **Q. In your opinion, will the products procured under the proposed DSP VI Program**  
23 **ensure the “least cost over time” to customers?**

1 A. Yes. First, it is important to note that there are numerous assumptions regarding inherently  
2 uncertain future market conditions that affect a given product portfolio's costs to  
3 customers. On a going-forward basis, there are many possible contract mixtures that can  
4 constitute a prudent mix, and the cost of these various mixtures is not necessarily known  
5 ahead of time. Thus, when assessing a product portfolio prospectively, it is important to  
6 analyze the products recognizing the uncertainty surrounding energy markets at the time  
7 the products are purchased. It is impossible to say with certainty whether one particular  
8 prudent mixture of products will always be less costly than another prudent mixture of  
9 products when evaluated post-procurement. What can be said with certainty is that  
10 exposing PPL Electric's smaller default service customers to price and quantity volatility  
11 can result in unexpected cost increases. The DSP VI Program explicitly recognizes such  
12 possibilities and insures against uncertain outcomes by relying primarily on 24-month term  
13 fixed-price, full-requirements products.

14 Consistent with the realities of the inherent uncertainty in energy markets, I have  
15 interpreted "least cost over time" along two dimensions. First, in a broader context, it is  
16 my understanding that the phrase "least cost over time" requires the selection of contracts  
17 that compose a prudent mix, and that the types of products in the prudent mix are selected  
18 by considering all relevant and appropriate risks and costs. Second, in a narrow context, it  
19 is my understanding that this phrase requires default service products to be procured  
20 through a process that produces the lowest cost for the particular product being purchased.

21

1 **Q. How does PPL Electric’s proposed DSP VI Program satisfy the broad interpretation**  
2 **of “least cost over time” with respect to Residential and Small C&I default service**  
3 **customers?**

4 A. I have analyzed the proposed DSP VI Program from the perspective of satisfying the policy  
5 objectives of the Commonwealth. In particular, I have assumed that it is important to  
6 provide default service customers, over time, relatively stable default service rates  
7 (compared to DSP V) that guard against costly risks, while allowing for retail competition.  
8 Under the DSP VI Program, fixed-price default service power supply products for  
9 Residential and Small C&I customers will incorporate market variations and provide cost-  
10 effective, stable default service rates. At the same time, retail competition is supported by  
11 default service rates that track changes in wholesale electricity markets and provide  
12 customers an opportunity to assess the benefits of shopping.

13 Thus, in my opinion, the DSP VI Program’s product portfolio supports market-  
14 reflective price changes with reasonable price stability (one of the Commonwealth’s public  
15 policy objectives, and an objective that is especially important for smaller customers) while  
16 supporting retail competition (which is another one of the Commonwealth’s primary public  
17 policy objectives). The DSP VI plan also takes into account the various risks that must be  
18 addressed by any default service plan.

19

1 **Q. How does PPL Electric’s proposed DSP VI Program satisfy the narrow interpretation**  
2 **of “least cost over time” with respect to Residential and Small C&I default service**  
3 **customers?**

4 A. The proposed DSP VI Program satisfies this provision by regularly holding transparent  
5 solicitations in which wholesale suppliers can compete with one another to be the source  
6 of default service supply. Over time, this approach will produce default service prices that  
7 are the least cost over time given the underlying energy market conditions. PPL Electric  
8 relies on widely advertised, well-defined solicitations to procure these products where the  
9 overarching objective is to seek out the lowest-cost suppliers. By obtaining default service  
10 supplies through competitive solicitations in the form of an auction, PPL Electric always  
11 obtains default supplies at the lowest possible cost for the product being procured.

12  
13 **Q. How does PPL Electric’s proposed DSP VI Program satisfy the broad interpretation**  
14 **of “least cost over time” with respect to Large C&I default service customers?**

15 A. As I have discussed above, by using the spot market to price default service for non-  
16 shopping Large C&I customers, the proposed DSP VI Program ensures that these  
17 customers are provided a default service product that has been demonstrably successful  
18 and competitively priced.

19  
20 **Q. How does PPL Electric’s proposed DSP VI Program satisfy the narrow interpretation**  
21 **of “least cost over time” with respect to Large C&I default service customers?**

22 A. The proposed DSP VI Program satisfies this provision for the same reasons I have  
23 explained above with respect to the fixed-price, full requirements power products used to

1 obtain supply for Residential and Small C&I customers. Namely, wholesale competition  
2 among suppliers of the spot market-priced product will ensure that PPL Electric provides  
3 this default service at the lowest possible cost. Providing default service supplies based on  
4 the spot market allows the Large C&I customers complete flexibility to shop and  
5 recognizes that retail suppliers have clearly offered Large C&I customers products that will  
6 take into account the particular needs of the individual customers. It is my opinion that  
7 default service with prices based on the spot market will be least cost over time for these  
8 customers.

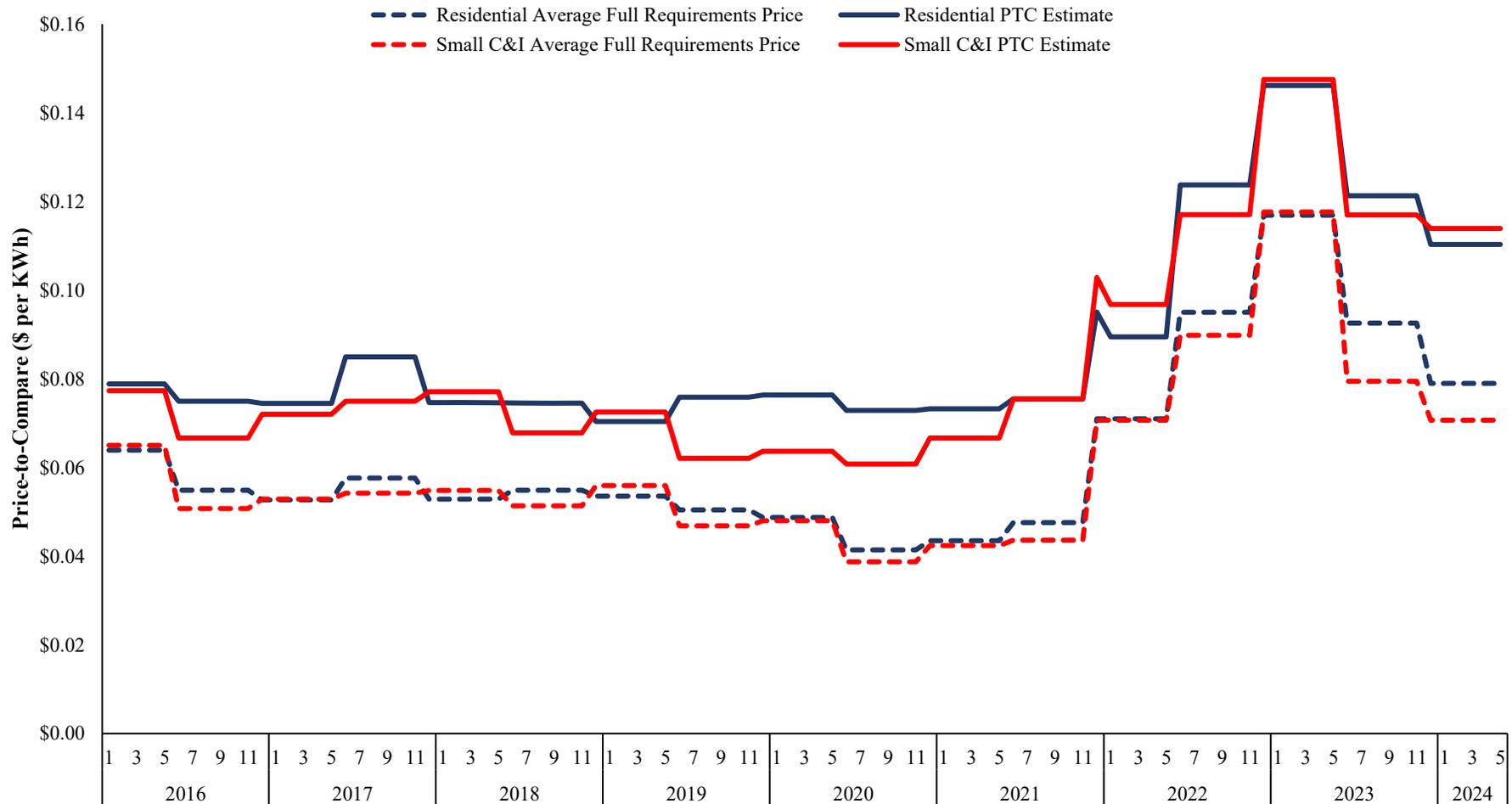
9  
10 **Q. Does this conclude your direct testimony?**

11 **A.** Yes. However, I reserve the right to supplement my testimony as additional issues arise.

# **Exhibit JC-1**

## Exhibit JC-1

### PPL Electric's Price-To-Compare and Average Full Requirements Price for Residential and Small Commercial and Industrial Customers (January 2016 - May 2024)



**Note:**

[1] PPL Electric's Price-to-Compare includes the company's average fixed-price, full-requirements power supply price plus additional costs primarily composed of the transmission services charge, reconciliation adjustment, state tax adjustment surcharge, and block supply for residential customers.

**Source:**

[A] PPL Electric's Historical Price to Compare and Shopping, accessed at <https://www.pplelectric.com/utility/about-us/for-generation-suppliers/general-supplier-reference-information/price-to-compare-and-shopping.aspx>.

# **Exhibit JC-2**

## Exhibit JC-2

### PPL Electric Utilities DSP VI Product Structure and Procurement Schedule Residential Customer Class

DSP V Product
  DSP VI Product

2025												2026												2027												2028												2029				
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
6-Month Product (20%)				6-Month Product (10%)								24-Month Product (20%)																								24-Month Product (20%)																
				12-Month Product (20%)												24-Month Product (20%)																								24-Month Product (20%)												
12-Month Product (40%)				12-Month Product (20%)								24-Month Product (20%)																								24-Month Product (20%)																
12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)																
24-Month Product (20%)												24-Month Product (20%)																																								
12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)																

5-Year Block Product (50 MW)																																																				
5-Year Block Product (50 MW)																																																				
												10-Year Block Products (150 MW)																																								

**Notes:**  
 [1] The first bi-annual procurement auction will occur in February 2025. Auctions will continue throughout the DSP period each February and July.  
 [2] Block products for energy and capacity credits to replace DSP V block products starting in 2026.

# **Exhibit JC-3**

**Exhibit JC-3**  
**PPL Electric Utilities DSP VI Product Structure and Procurement Schedule**  
**Small C&I Customer Class**

DSP V Product
  DSP VI Product

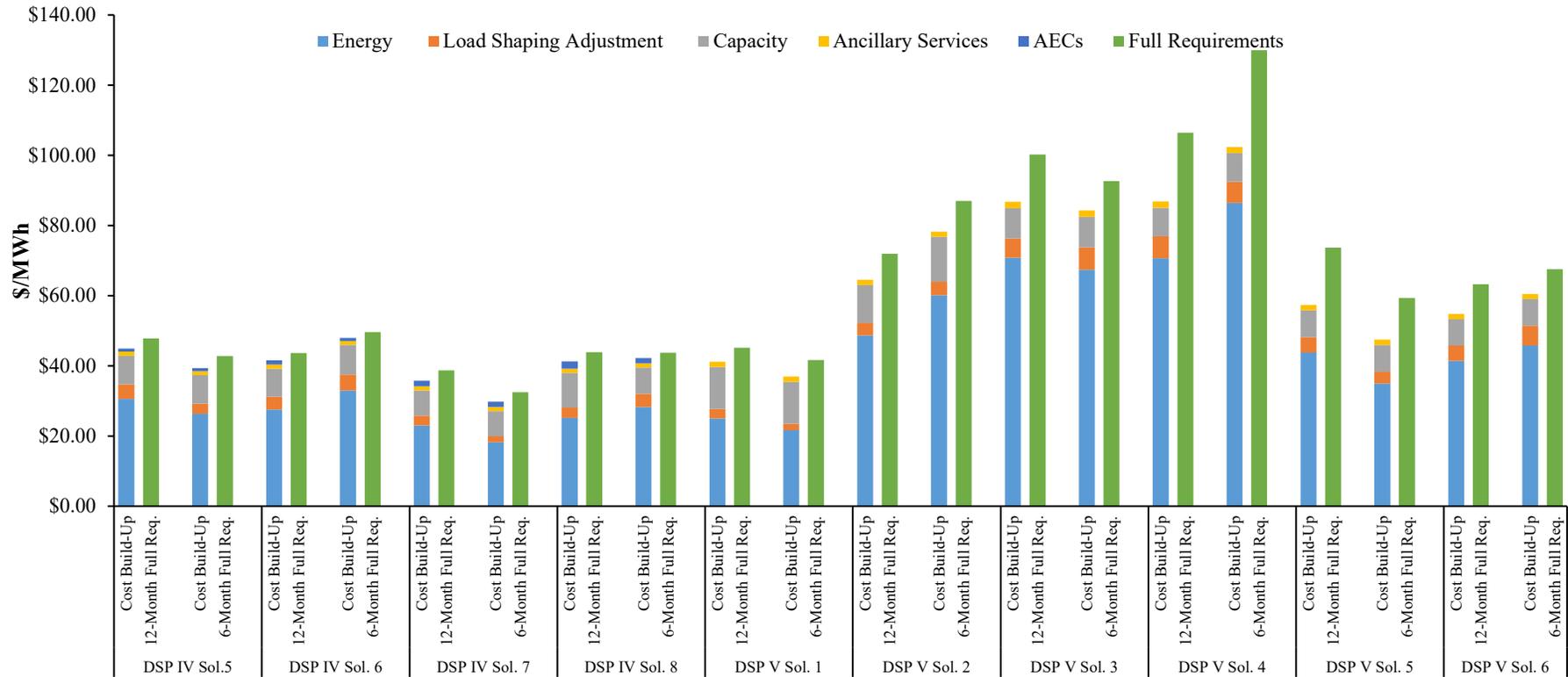
2025												2026												2027												2028												2029											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May							
6-Month Product (45%)				6-Month Product (25%)								24-Month Product (20%)																								24-Month Product (20%)																							
				12-Month Product (20%)												24-Month Product (20%)																								24-Month Product (20%)																			
12-Month Product (25%)												12-Month Product (20%)												24-Month Product (20%)																								24-Month Product (20%)											
												12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)											
												24-Month Product (20%)																								24-Month Product (20%)																							
												12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)												12-Month Product (10%)											

**Note:**

[1] The first bi-annual procurement auction will occur in February 2025. Auctions will continue throughout the DSP period each February and July.

# **Exhibit JC-4**

**Exhibit JC-4**  
**Cost Build-Up v. Full Requirements Price**  
**Residential Customer Class**  
**DSP IV Solicitation 5 - DSP V Solicitation 6**



**Sources:**

- [A] PPL Electric Utilities, "PPL Electric's Default Service Program," accessed at <https://www.ppldsp.com/data>.
- [B] Settlements Verified Hourly LMPs, PJM, Data Miner 2, accessed at: [https://dataminer2.pjm.com/feed/rt\\_da\\_monthly\\_lmgs/definition](https://dataminer2.pjm.com/feed/rt_da_monthly_lmgs/definition).
- [C] OTC Global Holdings Forward Curves.
- [D] State of the Market Report for PJM (2018-2023).
- [E] "Default Service Request for Proposals (RFP) Process and Rules," PPL Electric Utilities Corporation, February 21, 2017, available at [https://ppldsp.com/?wpfb\\_dl=86](https://ppldsp.com/?wpfb_dl=86); "Default Service Request for Proposals (RFP) Process and Rules," PPL Electric Utilities Corporation, February 22, 2021, available at [https://ppldsp.com/wp-content/uploads/2021/02/Default-Service-RFP-Rules\\_22-FEB-2021-1.pdf](https://ppldsp.com/wp-content/uploads/2021/02/Default-Service-RFP-Rules_22-FEB-2021-1.pdf); "Petition of PPL Electric Utilities Corporation for Approval of a Default Service Program and Procurement Plan," PPL Electric Utilities Corporation, Effective June 1, 2015, available at <https://www.pplelectric.com/-/media/PPLElectric/At-Your-Service/Docs/Default-Service-Suppliers/DSPP-Regulatory-Filings/PPLElectricPetitionforDSP3.pdf>.
- [F] Pennsylvania Alternative Energy Credit Program, Annual Reports, Appendix A, Tables 1 & 2, available at <https://www.pennaeps.com/reports/>.
- [G] PPL Default Service Program load data, available at <https://ppldsp.com/data/>.
- [H] Capacity Market (RPM), PJM, available at <https://pjm.com/markets-and-operations/rpm.aspx?p=1>.
- [I] PJM State of the Market Reports, Energy Uplift and Ancillary Services Markets, 2015-2023, available at [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2023.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2023.shtml).
- [J] PJM Load data, [https://dataminer2.pjm.com/feed/hrl\\_load\\_metered/definition](https://dataminer2.pjm.com/feed/hrl_load_metered/definition).

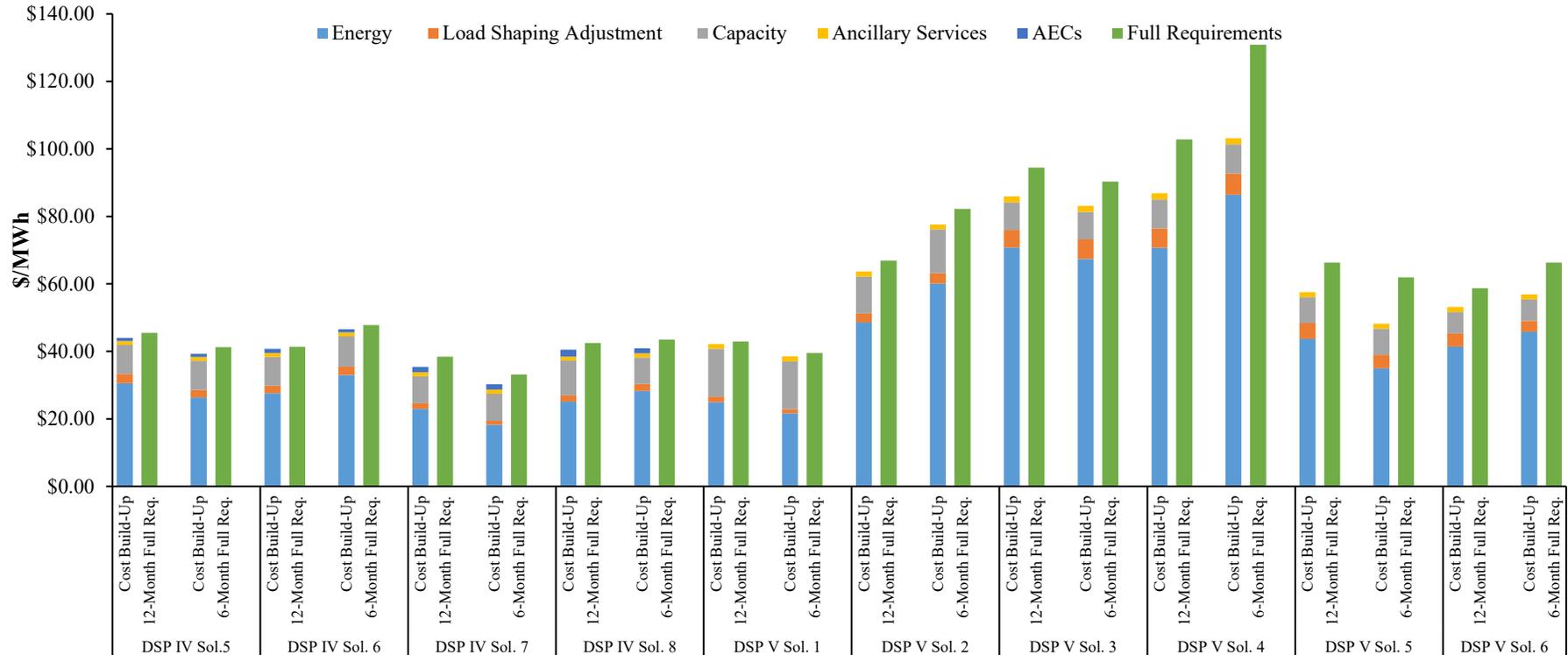
# **Exhibit JC-5**

## Exhibit JC-5

### Cost Build-Up v. Full Requirements Price

#### Small Commercial and Industrial Customer Class

#### DSP IV Solicitation 4 - DSP V Solicitation 6

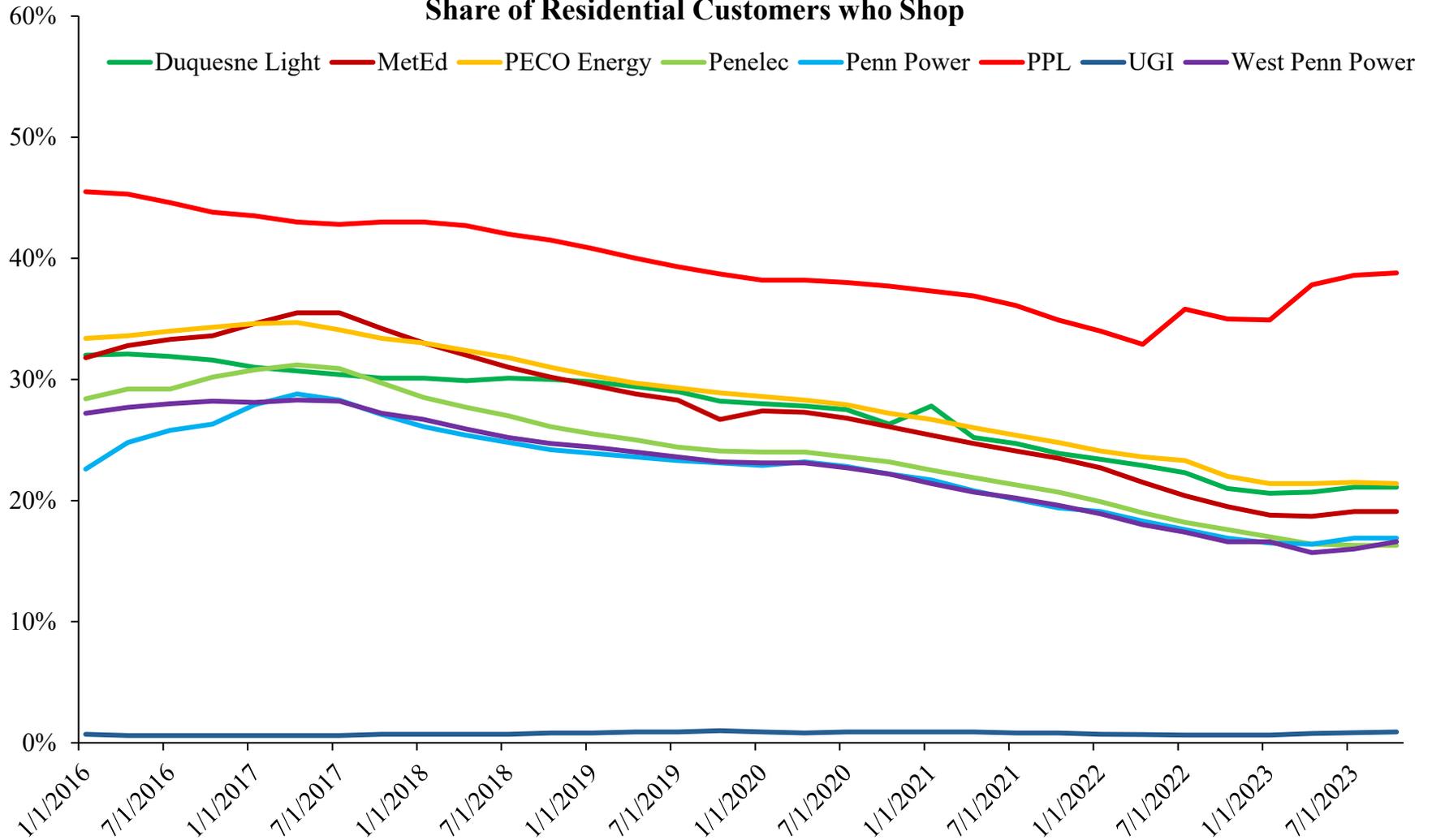


**Sources:**

- [A] PPL Electric Utilities, "PPL Electric's Default Service Program," accessed at <https://www.ppldsp.com/data>.
- [B] Settlements Verified Hourly LMPs, PJM, Data Miner 2, accessed at: [https://dataminer2.pjm.com/feed/rt\\_da\\_monthly\\_lmps/definition](https://dataminer2.pjm.com/feed/rt_da_monthly_lmps/definition).
- [C] OTC Global Holdings Forward Curves.
- [D] State of the Market Report for PJM (2018-2023).
- [E] "Default Service Request for Proposals (RFP) Process and Rules," PPL Electric Utilities Corporation, February 21, 2017, available at [https://ppldsp.com/?wpfb\\_dl=86](https://ppldsp.com/?wpfb_dl=86); "Default Service Request for Proposals (RFP) Process and Rules," PPL Electric Utilities Corporation, February 22, 2021, available at [https://ppldsp.com/wp-content/uploads/2021/02/Default-Service-RFP-Rules\\_22-FEB-2021-1.pdf](https://ppldsp.com/wp-content/uploads/2021/02/Default-Service-RFP-Rules_22-FEB-2021-1.pdf); "Petition of PPL Electric Utilities Corporation for Approval of a Default Service Program and Procurement Plan," PPL Electric Utilities Corporation, Effective June 1, 2015, available at <https://www.pplelectric.com/-/media/PPLElectric/At-Your-Service/Docs/Default-Service-Suppliers/DSPP-Regulatory-Filings/PPLElectricPetitionforDSP3.pdf>.
- [F] Pennsylvania Alternative Energy Credit Program, Annual Reports, Appendix A, Tables 1 & 2, available at <https://www.pennaeps.com/reports/>.
- [G] PPL Default Service Program load data, available at <https://ppldsp.com/data/>.
- [H] Capacity Market (RPM), PJM, available at <https://pjm.com/markets-and-operations/rpm.aspx?p=1>.
- [I] PJM State of the Market Reports, Energy Uplift and Ancillary Services Markets, 2015-2023, available at [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2023.shtml](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2023.shtml).
- [J] PJM Load data, [https://dataminer2.pjm.com/feed/hrl\\_load\\_metered/definition](https://dataminer2.pjm.com/feed/hrl_load_metered/definition).

# **Exhibit JC-6**

### Exhibit JC-6 Share of Residential Customers who Shop



**Source:** Pennsylvania Office of Consumer Advocate, Pennsylvania Electric Shopping Statistics, available at <https://www.oca.pa.gov/electric-shopping-guide-2/>.

**Note:** PPL's January 2018 percent of customers served and percent of load served by an alternative supplier appear to be switched in the OCA shopping statistics; the value presented as percent of load served by an alternative supplier is used in this exhibit.

# **Exhibit JC-7**

**Exhibit JC-7**  
**EGS Residential Supply Offers in PPL Service Territory**

Number of Supply Offers	Cumulative Number of Supply Offers	Term Length (months)
1	25	2
1	24	3
1	23	6
2	22	10
9	20	12
4	11	18
2	7	24
1	5	27
4	4	36
<b><i>Weighted Average Term Length</i></b>		<b><i>17</i></b>

**Note:**

[1] The number of supply offers refers to the total number of fixed price contracts provided to residential customers by Electric Generation Suppliers (EGSs) in PPL's service territory on January 25, 2024.

**Source:**

[A] *Price Comparison Chart*, PPL Electric Utilities, January 2024, accessed on February 21, 2024, available at <https://www.oca.pa.gov/wp-content/uploads/PPL.pdf>.

# **APPENDIX A**

**JOSEPH CAVICCHI**  
**Vice President**

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Mr. Cavicchi is an expert on the economics of wholesale and retail electricity markets. With more than 27 years of consulting experience, he advises a wide range of clients on issues associated with wholesale power market design and market power mitigation frameworks, wholesale and retail contracting practices, and regulatory and contract disputes arising in these marketplaces. In these engagements, Mr. Cavicchi has conducted economic analyses evaluating the impact of regulatory policies on electricity markets, applied rigorous analytical modeling tools to power system operations, evaluated contracting disputes and assessed financial damages, analyzed the effectiveness of market power mitigation frameworks in conjunction with antitrust analyses, and led economic investigations of market participant bidding behavior associated with allegations of market manipulation. He has extensive experience as an expert witness before the Federal Energy Regulatory Commission (FERC) and other federal and state regulatory authorities and has provided testimony in court and arbitration proceedings. Mr. Cavicchi presents and publishes frequently on issues relevant to electricity market design and evolution. He is a registered professional mechanical engineer in the Commonwealth of Massachusetts.

**EDUCATION**

1997	S.M., technology policy, Massachusetts Institute of Technology
1992	S.M., environmental engineering, Tufts University
1987	B.S., mechanical engineering, University of Connecticut

**PROFESSIONAL EXPERIENCE**

2019–Present	Analysis Group <i>Vice President</i>
1997–2019	Compass Lexecon <i>Executive Vice President/Senior Vice President (2007–2019)</i> <i>Vice President (2001–2006)</i> <i>Consultant/Senior Consultant (1997–2001)</i>
1989–1997	Massachusetts Institute of Technology <i>Research Assistant/Engineer (1995–1997)</i> <i>Project Manager/Staff Mechanical Engineer (1989–1995)</i>
1987–1988	Carrier Building Systems and Services <i>Project Engineer</i>

## SELECTED CONSULTING EXPERIENCE

### **Electric Generation Companies, Trade Associations, and Independent System Operators**

Conducts power system economic analyses to investigate the interaction of regulatory policies and rules with wholesale power markets, the results of which form the basis for a wide variety of reports, presentations, and papers. Conducts wholesale market power screening analyses and evaluates the impacts of mergers and acquisitions on wholesale and retail markets. Analyzes power market designs and runs workshops and seminars on power market design features.

Develops Federal Energy Regulatory Commission cost-of-service rate schedules for electric power generation resource asset owners. Oversees cost-of-service data compilation, schedule development, and calculation of cost of capital. Formulates overall cost of service schedules that combine rate-base, return on rate-base, and other ongoing fixed and variable costs to maintain generation resource operations.

### **Electricity Generation and Transmission Facility Developers**

Oversees the development and implementation of security-constrained unit commitment and dispatch modeling for proposed electricity generation units and transmission facilities located in the Northeastern, Mid-Atlantic, and Midwestern US. The analyses typically focus on going-forward generation and transmission resource economic evaluations, and on assessing the impacts of different resource mixtures on local and regional air pollutant emissions and projected wholesale and retail electricity prices. In addition, these analyses often include an estimate of the impact of particular resource investments on social welfare.

## SELECTED EXPERT TESTIMONY

- **Peaker Power, LLC, v. Shell Energy North America (US), L.P.**  
*Before the Texas Harris County District Court, 165th Judicial District, Cause No. 2021-16610*  
Expert Report of A. Joseph Cavicchi, August 22, 2022. Declaration of A. Joseph Cavicchi, September 9, 2022. Deposition Testimony of A. Joseph Cavicchi, October 5, 2022.
- **Narragansett Electric Company, d/b/a Rhode Island Energy**  
*Before the Rhode Island Public Utility Commission, Docket No. 4978, Last Resort Service Rate Filing*  
Pre-Filed Direct Testimony of A. Joseph Cavicchi, July 21, 2022. Hearing Testimony of A. Joseph Cavicchi, September 19, 2022.
- **Olin Chlorine 7 f/k/a Dow Mitsui Chlor-Alkali LLC**  
*Before the American Arbitration Association International Centre for Dispute Resolution, Olin Chlorine 7 f/k/a Dow Mitsui Chlor-Alkali LLC, and Blue Cube Operations, LLC, Claimants, and Dow Hydrocarbons and Resources LLC, Respondent, Case No. 01-21-0004-3837*  
Expert Report of Allen Joseph Cavicchi, February 1, 2022. Confidential.
- **PJM Interconnection, L.L.C.**  
*United States of America, Before the Federal Energy Regulatory Commission, Docket No. ER22-26-000*  
Direct Testimony of A. Joseph Cavicchi and Megan H. Accordino, Ph.D., October 1, 2021.
- **Twin Eagle Resource Management**  
*City of Raton vs. Twin Eagle, State of New Mexico, County of Colfax, Eighth Judicial District, Resource Management, No: D-809-CV-2019-00020*  
Deposition Testimony, December 3, 2020.

- **PPL Electric Utilities Corporation**  
*Before the Pennsylvania Public Utility Commission, Docket No. P-2020-3019356, PPL Electric Utilities Corporation*  
Statement No. 2. Direct Testimony of A. Joseph Cavicchi, March 25, 2020. Written, Public.  
Statement No. 2-R. Rebuttal Testimony of A. Joseph Cavicchi, July 23, 2020. Written, Public.
- **PJM Power Providers Group**  
*United States of America, Before the Federal Energy Regulatory Commission, Docket Nos. ER19-1486-000 and EL19-58-000*  
Affidavits of A. Joseph Cavicchi on behalf of the PJM Power Providers (“P3”) Group, May 15, 2019 and June 20, 2019. Written, Public.
- **NextEra Energy Resources, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission, Docket No. ER18-1639-000*  
Answering Testimony of A. Joseph Cavicchi on behalf of NextEraEnergy Resources, LLC, August 23, 2018. Written, Public and Confidential. Deposition Testimony of A. Joseph Cavicchi, September 10, 2018. Oral, Public. Testimony of A. Joseph Cavicchi, October 8, 2018, Oral, Public and Confidential.
- **CXA La Paloma, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission. RE : CXA La Paloma, LLC v. California Independent System Operator Corporation, Docket No. EL18-177*  
Affidavit of Jeffrey Tranen and Joseph Cavicchi, June 20, 2018. Written, Public.
- **Talen Montana, LLC and Talen Energy Marketing, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission. RE : Triennial Market-Based Rate Update for the Northwest Region, Talen Montana, L.L.C. et al., Dockets ER 15-2013 et al.*  
Affidavit of A. Joseph Cavicchi, April 27, 2018. Written, Public.
- **Talen Montana, LLC and Talen Energy Marketing, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission. RE : Triennial Market-Based Rate Update for the Northwest Region, Talen Montana, L.L.C. et al., Dockets ER 10-2016 et al.*  
Affidavit of A. Joseph Cavicchi, December 20, 2016. Written, Public.
- **PPL Electric Utilities Corporation and LG&E Energy Marketing Inc.**  
*United States of America, Before the Federal Energy Regulatory Commission. RE : Triennial Market-Based Rate Update for the Northeast Region, PPL Electric Utilities Corporation et al., Dockets ER 10-2010 et al.*  
Affidavit of A. Joseph Cavicchi, December 20, 2016. Written, Public.
- **NextEra Energy Resources, LLC**  
*Before the Commonwealth of Massachusetts, Department of Public Utilities, Docket D.P.U. 16-05, Petition for Approval of Gas Infrastructure Contracts with Algonquin Gas Transmission Co. for the Access Northeast Project*  
Direct Testimony of Joseph P. Kalt and A. Joseph Cavicchi, June 20, 2016 (corrected June 28, 2016), Written, Public and Confidential. Surrebuttal Testimony of Joseph P. Kalt and A. Joseph Cavicchi, July 18, 2016. Written, Public and Confidential.

- **NextEra Energy Resources, LLC**  
*Before the Commonwealth of Massachusetts, Department of Public Utilities, Docket D.P.U. 15-181, Petition for Approval of Gas Infrastructure Contracts with Algonquin Gas Transmission Co. for the Access Northeast Project*  
Direct Testimony of Joseph P. Kalt and A. Joseph Cavicchi, June 13, 2016 (corrected June 28, 2016), Written, Public and Confidential. Surrebuttal Testimony of Joseph P. Kalt and A. Joseph Cavicchi, July 12, 2016. Written, Public and Confidential.
- **PPL Electric Utilities Corporation**  
*Before the Pennsylvania Public Utility Commission, Docket No. P-2016-2526627, PPL Electric Utilities Corporation*  
Statement No. 2. Direct Testimony of A. Joseph Cavicchi, January 29, 2016. Written, Public. Statement No. 2-Supp. Supplemental Testimony of A. Joseph Cavicchi, March 9, 2016, Written, Public. Statement No. 2-R Rebuttal Testimony of A. Joseph Cavicchi, May 23, 2016. Written, Public.
- **Calpine Corporation et al.**  
*United States of America, Before the Federal Energy Regulatory Commission. Calpine Corporation et al., Complainants v. PJM Interconnection, L.L.C., Respondent. RE: Complaint Requesting Fast Track Processing, PJM Interconnection, L.L.C., Docket No. EL 16-49-000*  
Affidavit of A. Joseph Cavicchi, March 21, 2016. Written, Public.
- **PJM Power Providers Group**  
*Before the Public Utilities Commission of Ohio, In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement for Inclusion in the Power Purchase Agreement Rider, Case No. 14-1693-EL-RHR et al.*  
Supplemental Testimony of A. Joseph Cavicchi on behalf of the PJM Power Providers Group and The Electric Power Supply Association, December 28, 2015. Written, Public and Confidential. Deposition of A. Joseph Cavicchi on behalf of the PJM Power Providers Group and The Electric Power Supply Association, January 5, 2016. Deposition Testimony of A. Joseph Cavicchi, January 5, 2016. Testimony of A. Joseph Cavicchi, January 7, 2016. Oral, Public.
- **Exelon Generation Company, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission, San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services, Into Markets Operated by the California, Independent System Operator Corporation, And the California Power Exchange, Docket EL 00-95-280 et al.*  
Affidavit of A. Joseph Cavicchi in Support of the Exelon Generation Company, LLC's Fuel Cost Allowing Filing, December 4, 2015. Written, Public.
- **PJM Power Providers Group**  
*Before the Public Utilities Commission of Ohio, In the Matter of the Application Seeking Approval of Ohio Power Company's Proposal to Enter into an Affiliate Power Purchase Agreement for Inclusion in the Power Purchase Agreement Rider, Case No. 14-1693-EL-RHR et al.*  
Direct Testimony of A. Joseph Cavicchi on behalf of the PJM Power Providers Group and The Electric Power Supply Association, September 11, 2015, Written, Public and Confidential. Testimony of A. Joseph Cavicchi on behalf of the PJM Power Providers Group and The Electric Power Supply Association, October 20, 2015. Oral, Public.
- **Iberdrola Renewables, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission, Docket Nos. EL02-60-007 and EL02-62-006, consolidated*

Prepared Answering Testimony of A. Joseph Cavicchi on behalf of Iberdrola Renewables, LLC, July 21, 2015 Written, Public & Confidential. Deposition of A. Joseph Cavicchi on behalf of the Iberdrola Renewables, LLC, September, 24, 2015. Oral, Confidential. Testimony of A. Joseph Cavicchi, December 3, 2015. Oral, Public.

▪ **PPL Electric Utilities Corporation**

*Before the Pennsylvania Public Utility Commission, Docket No. P-2014-2417907, PPL Electric Utilities Corporation*

Statement No. 2. Direct Testimony of A. Joseph Cavicchi, April 25, 2014, Written, Public. Statement No. 2-R Rebuttal Testimony of A. Joseph Cavicchi, July 28, 2014. Written, Public.

▪ **San Diego Gas and Electric Company**

*Naturener USA, LLC, et al. v. San Diego Gas & Electric Company, in the Montana Ninth Judicial District Court, Toole County, Declaration, January 22, 2014. Non-Public.*

▪ **PPL EnergyPlus**

*United States of America, Before the Federal Energy Regulatory Commission. RE : Triennial Market-Based Rate Update for the Northeast Region, PPL Electric Utilities Corporation et al., Dockets ER 10-2010 et al.*

Affidavit of A. Joseph Cavicchi, December 31, 2013. Written, Public.

▪ **PPL EnergyPlus**

*United States of America, Before the Federal Energy Regulatory Commission. RE : Triennial Market-Based Rate Update for the Northwest Region, PPL EnergyPlus LLC et al., Dockets ER 10-2011 et al.*

Affidavit of A. Joseph Cavicchi, December 31, 2013. Written, Public.

▪ **Transalta Energy Marketing**

*United States of America, Before the Federal Energy Regulatory Commission, Puget Sound Energy, Inc., Complainant v. All Jurisdictional Sellers of Energy and/or Capacity at Wholesale into Electric Energy and/or Capacity Markets in the Pacific Northwest, Including Parties to the Western System Power Pool Agreement Participants, Docket. No. EL01-085*

Prepared Answering Testimony of A. Joseph Cavicchi on behalf of Transalta Energy Marketing (U.S.) Inc. and Transalta Energy Marketing (California) Inc., December 17, 2012. Deposition of A. Joseph Cavicchi on behalf of Transalta Energy Marketing (California) Inc., February 8, 2013. Testimony of A. Joseph Cavicchi, October 21 and 22, 2013. Oral, Public.

▪ **Avista Corporation et al.**

*United States of America, Before the Federal Energy Regulatory Commission, In the Matter of Puget Sound Energy, Inc. v. All Jurisdictional Sellers of Energy and/or Capacity at Wholesale into Electric Energy and/or Capacity Markets in the Pacific Northwest, including Parties to the Western Systems Power Pool Agreement. Docket EL01-10-085*

Testimony of A. Joseph Cavicchi, September 26, 2013. Oral, Public. Answering Testimony of A. Joseph Cavicchi on behalf of Avista Corporation et al. ("Joint Defense Group"), June 24, 2013. Deposition of A. Joseph Cavicchi on behalf of Avista Corporation et al., July 9, 2013.

▪ **US Department of Justice**

*Before the United States Court of Federal Claims, Pacific Gas and Electric Company and Southern California Edison Company, Plaintiffs et al. v. The United States, Defendant, No. 07-157C, No. 07-167C (Consolidated), No. 07-184C*

Deposition of A. Joseph Cavicchi, March 27, 2013. Confidential, Subject to Protective Order.

- **US Department of Justice**  
*Before the United States Court of Federal Claims, Pacific Gas and Electric Company and Southern California Edison Company, Plaintiffs et al. v. The United States, Defendant, No. 07-157C, No. 07-167C (Consolidated), No. 07-184C*  
Expert Report of A. Joseph Cavicchi, March 1, 2013. Confidential, Subject to Protective Order.
- **PPL Montana and PPL EnergyPlus**  
*United States of America, Before the Federal Energy Regulatory Commission, Puget Sound Energy, Inc., Complainant v. All Jurisdictional Sellers of Energy and/or Capacity at Wholesale into Electric Energy and/or Capacity Markets in the Pacific Northwest, Including Parties to the Western System Power Pool Agreement Participants, Docket. No. EL01-085*  
Prepared Answering Testimony of A. Joseph Cavicchi on behalf of PPL Montana and PPL EnergyPlus, December 17, 2012. Written, Public. Deposition of A. Joseph Cavicchi on behalf of PPL Montana and PPL EnergyPlus, February 8, 2013.
- **Constellation New Energy**  
*United States of America, Before the Federal Energy Regulatory Commission, Puget Sound Energy, Inc., Complainant v. All Jurisdictional Sellers of Energy and/or Capacity at Wholesale into Electric Energy and/or Capacity Markets in the Pacific Northwest, Including Parties to the Western System Power Pool Agreement Participants, Docket. No. EL01-085*  
Prepared Answering Testimony of A. Joseph Cavicchi on behalf of Constellation Energy Commodities Group, December 17, 2012. Written, Public. Deposition of A. Joseph Cavicchi on behalf of Constellation Energy Commodities Group, February 8, 2013.
- **Constellation NewEnergy**  
*United States of America, Before the Federal Energy Regulatory Commission, San Diego Gas & Electric Company, Complainant, v. Sellers of Energy and Ancillary Services into Markets Operated by the CA ISO and CA Power Exchange, et al., Respondents, Docket No. EL00-95-248*  
Direct Testimony and Exhibits of Constellation NewEnergy, Inc. Testimony of A. Joseph Cavicchi on behalf of Constellation NewEnergy, July 11, 2012. Oral, Public.
- **PPL Electric Utility Corporation**  
*Before the Pennsylvania Public Utility Commission, Docket No. P-2012-2302074, PPL Electric Utility Corporation*  
Statement No. 2. Direct Testimony of A. Joseph Cavicchi, May 16, 2012. Statement No. 2-R. Direct Testimony of A. Joseph Cavicchi, August 17, 2012. Statement No. 3. Testimony of A. Joseph Cavicchi, September 10, 2012. Oral, Public.
- **PPL Corporation**  
*United States of America, Before the Federal Energy Regulatory Commission, RE: Notice of Change in Status Regarding Market-Based Rate Authority, Docket No. ER10-2016-\_\_\_ et al.*  
Affidavit of A. Joseph Cavicchi on behalf of PPL Corporation, January 30, 2012. Written, Public.
- **Entegra Power Services, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission, Union Power Partners LP, Docket No. ER05-1191-016, Entegra Power Services LLC, Docket No. ER09-838-002*  
Updated Market Power Analysis for Market-Based Rates. Affidavit of A. Joseph Cavicchi, December 29, 2011.
- **Constellation NewEnergy, Inc.**

*United States of America, Before the Federal Energy Regulatory Commission, San Diego Gas & Electric Company, Complainant, v. Sellers of Energy and Ancillary Services into Markets Operated by the CA ISO and CA Power Exchange, et al., Respondents, Docket No. EL00-95-248*  
Direct Testimony and Exhibits of Constellation NewEnergy, Inc., Direct and Answering Testimony and Exhibits of A. Joseph Cavicchi on behalf of Constellation NewEnergy, October 25, 2011. Written, Public.

▪ **CP Energy**

*United States of America, Before the Federal Energy Regulatory Commission, RE: Triennial Market-Based Rate Update for the Northeast Region, Docket No. ER10-1342 et al.*  
Affidavit of A. Joseph Cavicchi, June 30, 2011. Written, Public.

▪ **Edison Mission**

*United States of America, Before the Federal Energy Regulatory Commission, RE: Triennial Market-Based Rate Update for the Northeast Region, Edison Mission Marketing and Trading, et al., Docket No. ER11-\_\_\_-000, et al.*  
Affidavit of A. Joseph Cavicchi, June 29, 2011. Written, Public.

▪ **Entegra Power Services, LLC**

*United States of America, Before the Federal Energy Regulatory Commission, Gila River Energy Supply LLC, Docket No. ER11-\_\_\_-000, Request for Acceptance of Initial Market-Based Rate Tariff, Waivers and Blanket Authority Under Section 205 of the Federal Power Act*  
Affidavit of A. Joseph Cavicchi, April 11, 2011. Written, Public.

▪ **PPL Corporation**

*United States of America, Before the Federal Energy Regulatory Commission, Triennial Market-Based Rate Update for the Northwest Region, PPL Northwest Companies, ER10-2011-000 et al.*  
Affidavit of A. Joseph Cavicchi on behalf of the PPL Northwest Companies, January 31, 2011. Written, Public.

▪ **Entegra Power Services LLC**

*United States of America, Before the Federal Energy Regulatory Commission, Gila River Power, LP, Docket No. ER05-1178-015 and Entegra Power Services LLC, Docket ER09-838-001, Second Supplement to Updated Market Power Analysis for Continued Market-Based Rate Authority in Compliance with Order No. 697*  
Second Supplement Affidavit of A. Joseph Cavicchi, January 12, 2011. Written, Public.

▪ **PPL Corporation**

*United States of America, Before the Federal Energy Regulatory Commission, RE: Notice of Change of Status Regarding Market-Based Rate Authority, Docket No. ER10-1511-001 et al.*  
Affidavit of A. Joseph Cavicchi on behalf of PPL Corporation, December 1, 2010. Written, Public.

▪ **Entegra Power Services LLC**

*United States of America, Before the Federal Energy Regulatory Commission, Gila River Power, LP, Docket No. ER05-1178-015 and Entegra Power Services LLC, Docket ER09-838-001*  
Supplement to Updated Market Power Analysis for Continued Market-Based Rate Authority in Compliance with Order No. 697. Affidavit of A. Joseph Cavicchi, November 19, 2010. Written, Public.

▪ **Chesapeake Energy Corp., et al.**

*Before the Public Utilities Commission of the State of Colorado, In the Matter of Commission Consideration of Public Service Company of Colorado Plan in Compliance with House Bill 10-1365 "Clean Air Jobs Act," Docket No. 10M-245E*

Testimony of A. Joseph Cavicchi on behalf of Noble Energy, Inc., Chesapeake Energy Corporation and Encana Oil & Gas (USA), November 1, 2010. Oral, Public. November 9, 2010. Written, Public. November 18, 2010. Oral, Public.

▪ **Chesapeake Energy Corp., et al.**

*Before the Public Utilities Commission of the State of Colorado, In the Matter of Commission Consideration of Public Service Company of Colorado Plan in Compliance with House Bill 10-1365 "Clean Air Jobs Act," Docket No. 10M-245E*

Cross Answer Testimony and Exhibits of A. Joseph Cavicchi on behalf of Noble Energy, Inc., Chesapeake Energy Corporation and Encana Oil & Gas (USA), October 8, 2010. Written Report Public, Exhibits Confidential, Filed Under Seal.

▪ **Chesapeake Energy Corp., et al.**

*Before the Public Utilities Commission of the State of Colorado, In the Matter of Commission Consideration of Public Service Company of Colorado Plan in Compliance with House Bill 10-1365 "Clean Air Jobs Act," Docket No. 10M-245E*

Answer Testimony and Exhibits of A. Joseph Cavicchi on behalf of Noble Energy, Inc., Chesapeake Energy Corporation and Encana Oil & Gas (USA), September 17, 2010. Written, Confidential.

▪ **PPL Electric Utilities Corporation**

*Before the Pennsylvania Public Utility Commission, RE: Petition of PPL Electric Utilities Corporation for Approval of a Default Service Program and Procurement Plan for the Period January 1, 2011 through May 31, 2014, Docket No. P-2008-2060309*

Statement No. 2. Direct Testimony of A. Joseph Cavicchi on behalf of PPL Electric, September 14, 2010. Oral, Written and Public.

▪ **PPL Corporation and E.ON U.S.**

*United States of America, Before the Federal Energy Regulatory Commission, RE: PPL Corporation and E.ON U.S. LLC Application for Authorization Under Section 203 of the Federal Power Act, Request for Waivers of Filing Requirements, and Confidential Treatment of Agreement and Workpapers, Docket No. EC10-77-000*

Affidavit of Dr. Joseph P. Kalt and Mr. A. Joseph Cavicchi, June 28, 2010.

▪ **BG Masspower**

*Before the Commonwealth of Massachusetts Trial Court, Suffolk, SS, Civil Action 07-3243 (BLS2), Masspower, by its General Partners, BG MP Partners I, LLC, and BG MP Partners II, LLC, Plaintiffs, v. Massachusetts Municipal Wholesale Electric Company, Defendant*

Deposition of A. Joseph Cavicchi on behalf of Masspower, February 19, 2010. Testimony of A. Joseph Cavicchi on behalf of Masspower, March 18 and 19, 2010. Oral, Public.

▪ **Allegheny**

*United States of America, Before the Federal Energy Regulatory Commission, State of California ex rel. Lockyer v. British Columbia Power Exchange Corp., et al., Docket No. EL02-71-017 et al.*

Prepared Answering Testimony of A. Joseph Cavicchi on behalf of Allegheny Energy, September 17, 2009. Written, Public.

▪ **MPS Merchant Services**

*United States of America, Before the Federal Energy Regulatory Commission, State of California ex rel. Lockyer v. British Columbia Power Exchange Corp., et al., Docket No. EL02-71-017*

Prepared Answering Testimony of A. Joseph Cavicchi on behalf of MPS Merchant Services, September 17, 2009. Written, Public.

▪ **PPL Montana, LLC**

*United States of America, Before the Federal Energy Regulatory Commission, State of California ex rel. Lockyer v. British Columbia Power Exchange Corp., et al., Docket No. EL02-71-017*

Answering Testimony of A. Joseph Cavicchi on behalf of PPL Montana, LLC, September 17, 2009. Written, Public.

▪ **Constellation New Energy**

*United States of America, Before the Federal Energy Regulatory Commission, San Diego Gas and Electric Co. v. Sellers of Energy and Ancillary Services, Docket No. EL00-95 et al.*

Affidavit of A. Joseph Cavicchi on behalf of Constellation New Energy, August 4, 2009. Written, Public.

▪ **Energy Northwest**

*Before the American Arbitration Association, Seattle, Washington, Grays Harbor Energy LLC, Claimant, Energy Northwest, Respondent, Case No. 75-158-115-08*

Testimony of A. Joseph Cavicchi on behalf of Energy Northwest, June 18, 2009. Oral, Public. Deposition

Testimony of A. Joseph Cavicchi on behalf of Energy Northwest, May 13, 2009. Oral, Public.

Supplemental Expert Report of A. Joseph Cavicchi on behalf of Energy Northwest, April 30, 2009.

Written, Confidential. Expert Report of A. Joseph Cavicchi on behalf of Energy Northwest, April 15, 2009. Written, Confidential.

▪ **Entegra Power Services LLC**

*United States of America, Before the Federal Energy Regulatory Commission, Request for Acceptance of Initial Market-Based Rate Tariff, RE: Updated Market Power Analysis for EPS' Affiliate, Gila River, Docket ER09-838-000*

Affidavit of A. Joseph Cavicchi, March 13, 2009. Written, Public.

▪ **Union Pacific Railroad Company**

*In the Matter of the Arbitration between Wisconsin Public Service Corporation and Union Pacific Railroad Company*

Rebuttal Expert Report of A. Joseph Cavicchi, February 16, 2009.

▪ **PPL Electric Utilities Corporation**

*Before the Pennsylvania Public Utility Commission, RE: Petition of PPL Electric Utilities Corporation for Approval of a Default Service Program and Procurement Plan for the Period January 1, 2001 through May 31, 2014, Docket No. P-2008-2060309*

Testimony of A. Joseph Cavicchi on behalf of PPL Electric Utilities Corporation, February 11, 2009. Oral, Public.

▪ **PPL Electric Utilities Corporation**

*Before the Pennsylvania Public Utility Commission, Docket No. P-2008-2060309*

Rebuttal Testimony of A. Joseph Cavicchi on behalf of PPL Electric Utilities Corporation, January 20, 2009.

▪ **Union Power Partners, L.P.**

*United States of America, Before the Federal Regulatory Commission, Docket No. ER05-1191-014, Updated Market Power Analysis for Continued Market-Based Rate Authority*

Affidavit of A. Joseph Cavicchi on behalf Union Power Partners, L.P., December 30, 2008.

- **PPL Electric Utilities Corporation**  
*Before the Pennsylvania Public Utility Commission, Docket No. P-2008-2060309*  
Supplemental Testimony of A. Joseph Cavicchi of behalf of PPL Electric Utilities Corporation, November 3, 2008.
- **PPL Electric Utilities Corporation**  
*Before the Pennsylvania Public Utility Commission, Docket No. P-2008-2060309*  
Testimony of A. Joseph Cavicchi of behalf of PPL Electric Utilities Corporation, September 11, 2008.
- **PPL Electric Utilities Corporation**  
*United States of America, Before the Federal Regulatory Commission, Docket No. ER00-1712-008, ER02-2408-003, ER00-744-006, ER02-1327-005, ER00-1703-003, ER02-1749-003, ER02-1747-003, ER99-4503-005, ER00-2186-003, ER01-1559-004*  
Affidavit of A. Joseph Cavicchi on behalf of PPL Companies, September 2, 2008.
- **PPL Electric Utilities Corporation**  
*United States of America, Before the Federal Regulatory Commission, Docket No. EL08-67-000*  
Affidavit of A. Joseph Cavicchi (with Joseph P. Kalt) on behalf of PPL Companies, August 12, 2008.
- **PPL Electric Utilities Corporation**  
*United States of America, Before the Federal Regulatory Commission, Docket No. EL08-67-000*  
Affidavit of A. Joseph Cavicchi (with Joseph P. Kalt) on behalf of PPL Companies, July 11, 2008.
- **Entegra Power Group L.L.C.**  
*United States of America, Before the Federal Regulatory Commission, Docket Nos. ER05-1178-00 and ER05-1191-00*  
Affidavit of A. Joseph Cavicchi on behalf of Entegra Power Group L.L.C, Gila River Power, L.P., Union Power Partners, L.P., Harbinger Capital Partners Master Fund I, Ltd., and Harbinger Capital Partners Special Situations Fund, LP, May 30, 2008.
- **Harbinger**  
*United States of America, Before the Federal Regulatory Commission, Docket No. EC08-87-000*  
Affidavit of A. Joseph Cavicchi on behalf of the Entegra Power Group L.L.C, Gila River Power, L.P., Union Power Partners, L.P., Harbinger Capital Partners Master Fund I, Ltd., and Harbinger Capital Partners Special Situations Fund, LP, May 9, 2008.
- **IEPA**  
*United States of America, Before the Federal Regulatory Commission, Docket Nos. ER08-556-000 and ER06-615-020*  
Affidavit of A. Joseph Cavicchi on behalf of Independent Energy Producers Association, February 29, 2008.
- **PJM Power Providers Group**  
*United States of America, Before the Federal Regulatory Commission, Docket No. EL08-34-000*  
Affidavit of Joseph P. Kalt and A. Joseph Cavicchi on behalf of the P3 Group, responding to the Complaint of the Maryland Public Service Commission against PJM Interconnection, L.L.C., regarding marketing power mitigation, February 19, 2008.

- **Tractebel Energy Marketing, Inc.**  
*Tractebel Energy Marketing, Inc. v. AEP Power Marketing, Inc., American Electric Power Company, Inc. and Ohio Power Company, 03 CV 6731 (S.D.N.Y.) (HB) (JCF); and Ohio Power Company and AEP Power Marketing, Inc. v. Tractebel Energy Marketing, Inc. and Tractebel S.A., 03 CV 6770 (S.D.N.Y.) (HB) (JCF)*  
Expert Report of A. Joseph Cavicchi on behalf of Tractebel Energy Marketing, Inc., January 21, 2008.
- **PPL Corporation**  
*United States of America, Before the Federal Regulatory Commission, Docket Nos. ER00-1712-007, ER02-2408-003, ER00-744-006, ER02-1327-005, ER00-1703-002, ER02-1749-003, ER02-1747-003, ER99-4503-005, ER00-2186-003, ER01-1559-004*  
Affidavit of A. Joseph Cavicchi on behalf of Triennial Market Power Update of PPL Companies, January 14, 2008.
- **IEPA**  
*United States of America, Before the Federal Regulatory Commission, Docket Nos. ER06-615-003, 005, 012, ER07-1257-000, ER02-1656-017, ER02-1656-018, EL05-146-000 and EL08-20-000*  
Affidavit of A. Joseph Cavicchi on behalf of Independent Energy Producers Association, January 9, 2008.
- **NRG**  
*United States of America, Before the Federal Regulatory Commission, New York Independent System Operator – Docket No. EL07-39-000*  
Affidavits of A. Joseph Cavicchi on behalf of NRG Power Marketing, Inc., Arthur Kill Power LLC, Astoria Gas Turbine Power LLC, Dunkirk Power LLC, Huntley Power LLC, and Oswego Harbor Power LLC, November 19, 2007, December 10, 2007, and December 21, 2007. Written, Public.
- **American Electric Power Services Corporation, Conectiv Energy Supplies, Inc., DTE Energy Trading, Inc., Energy America, LLC, Integrys Energy Services, Inc., and PPL Energy Plus, LLC**  
*United States of America, Before the Federal Regulatory Commission, The People of the State of Illinois, ex rel. Illinois Attorney General Lisa Madigan v. Exelon Generation Co., LLC, et al., Docket No. EL07-47-000*  
Affidavit of Joseph Cavicchi and Joseph P. Kalt, June 18, 2007. Written, Public.
- **Independent Energy Producers Association of California**  
*United States of America, Before the Federal Regulatory Commission, Docket No. R.06-02-013, Long-Term Procurement Plans, Prepared Testimony of the Independent Energy Producers Association*  
Prepared Testimony of Joseph Cavicchi and David Reishus on behalf of the IEPA, March 2, 2007. Written, Public.
- **Cross Hudson**  
*Before the State Of New York Public Service Commission, Request of Hudson Transmission Partners, LLC, for Unredacted Copies of Records Filed In Case 01-T-1474*  
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- **PPL Electric Utilities Corporation**

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▪ **PPL Electric Utilities Corporation**

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▪ **PJM Interconnect, LLC**

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▪ **Excelsior Energy Inc.**

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▪ **PPL Electric Utilities Corporation**

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▪ **Independent Energy Producers Association of California**

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▪ **Independent Energy Producers Association of California**

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Affidavit of Joseph Cavicchi, August 21, 2006. Written, Public.

▪ **PPL Maine, LLC**

*United States of America, Before the Federal Regulatory Commission, RE: PPL Maine, LLC, Docket No. ER00-2186-002*  
Triennial Market-Based Rate Update. Affidavit of A. Joseph Cavicchi on behalf of the PPL Companies, June 19, 2006. Written, Public.

▪ **FirstEnergy Solutions Corp.**

*United States of America, Before the Federal Regulatory Commission, FirstEnergy Solutions Corp., Docket No. ER06-117-000*

Prepared Direct Testimony of Scott T. Jones, Ph.D., and A. Joseph Cavicchi on behalf of FirstEnergy Solutions Corporation, March 15, 2006, confirming the auction price result of the Competitive Bidding Process carried out by the Ohio Public Utilities Commission in December 2004, and establishing that Solutions is not charging a rate greater than market prices for wholesale electricity sold to its affiliated Ohio based regulated distribution companies.

- **PPL Montana, LLC**  
*United States of America, Before the Federal Energy Regulatory Commission, RE: PPL Montana, LLC, Docket No. ER99-3491-003; PPL Colstrip I, LLC, Docket No. ER00-2184-001; PPL Colstrip II, LLC, Docket No. ER00-2185-001; Answer of the PPL Montana Parties to Montana Consumer Counsel's New Uncommitted Capacity Pivotal Supplier Analysis and Uncommitted Capacity Market Share Analysis*  
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- **PPL Corporation**  
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Affidavit, January 24, 2006.
- **Independent Energy Producers Association of California**  
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- **PPL Corporation**  
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- **PPL Corporation**  
*United States of America, Before the Federal Energy Regulatory Commission, PPL Resource Adequacy Market Proposal, Docket No. PL05-7-000*  
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- **PPL EnergyPlus**  
*United States of America, Before the Federal Energy Regulatory Commission, Docket ER00-1712-004, Request for Leave to Respond and Response of PPL Parties to Protest of PJM Industrial Customer Coalition and the PP&L Industrial Customer Alliance and to Comments of Joint Consumer Advocates*

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- **PPL Montana, LLC**  
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- **PPL Wallingford Energy LLC**  
*United States of America, Before the Federal Energy Regulatory Commission, PPL Wallingford Energy LLC, Docket No. ER01-1559-002, market power analysis in support of application for renewal of authority to sell electric energy and capacity at market-based rates*  
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- **PPL Wallingford Energy LLC**  
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## **PRESENTATIONS AND SPEAKING ENGAGEMENTS**

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“Getting ELCC Right – Managing the Changing Fleet,” EUCI Applying ELCC in ISOs and Utility Balancing Areas to Ensure Resource Adequacy (December 14, 2021).

“Overview of Ancillary Services, Regulation and Reserve Products in Wholesale Markets,” EUCI Ancillary Services Fundamentals and Market Dynamics (August 25, 2021).

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“Fundamentals of Capacity Market Design and Performance,” EUCI Capacity Markets Workshop, (July 29, 2020).

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“Enhanced Reliability Unit Commitment: Fundamentals Design Elements 9-13,” presented with Scott Harvey and Susan Pope, Independent Electricity System Operator of Ontario, Toronto, Ontario (November 27, 2017).

“Enhanced Reliability Unit Commitment: Fundamentals Design Elements 1-8,” presented with Scott Harvey and Susan Pope, Independent Electricity System Operator of Ontario, Toronto, Ontario (October 30, 2017).

“The Growing Conflict between FERC Jurisdictional Electric Markets and State Policies,” 2017 White & Case Energy Conference (October 18, 2017).

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“What Are the Implications for Adequacy, and Future Generation Builds?” Infocast, Panelist, RPM and CP BRA Auction Results, PJM Market Summit 2015 (September 17, 2015).

Panelist, Congressional Staff Briefing regarding the financial repercussions of the EPA’s Clean Power Plan to public power plants, electric co-operatives, and merchant power plants, Stranded Assets Panel – Focusing on Financial Impacts to Public Power, Co-Ops, and Merchant Power Plants Under EPA’s 111 (d) Clean Power Plan, Washington DC (March 2, 2015).

“Lessons Learned from Existing Scarcity and Shortage Pricing Rules,” Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators, Scarcity and Shortage Pricing, Offer Mitigation, and Offer Caps Workshop, Federal Energy Regulatory Commission, Docket No. AD14-14-000 (October 28, 2014).

“Impacts of Offer Caps and Market Power Mitigation,” Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators, Scarcity and Shortage Pricing, Offer Mitigation, and Offer Caps Workshop, Federal Energy Regulatory Commission, Docket No. AD14-14-000 (October 28, 2014).

Led a Congressional Staff Briefing examining section 111(d) of the Clean Air Act, Stranded Assets Panel – Focusing on the Impacts of EPA’s GHG Proposal for Existing Plants Under 111(d), Washington, DC (July 30, 2014).

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“Fundamentals of Capacity Market Design and Performance,” EUCI (November 6, 2013).

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“Market Power Monitoring and Mitigation in Electric Capacity Markets,” Capacity Markets: Achieving Market Price Equilibrium?, EUCI (October 4, 2012).

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“Economics and Regulation of Large Scale Renewable Resource Electricity System Transmission Additions,” Center for Research in Regulated Industries, Eastern Conference, Rutgers University (May 6, 2010).

“PJM’s RPM Auctions: Emerging and Unsettled Issues,” NECA Power Markets Conference (November 1, 2007).

“Locational Capacity Markets: Understanding the Upside,” New York City, July 8, 2006.

“Competition and Regulation in the North American Electricity Industry: Can These Two Seemingly Opposed Forces Coexist?” 24<sup>th</sup> Annual North American Conference of the USAEE/IAEE, Washington, DC (July 9, 2004).

“Merchant Transmission Investment Regimes: An Outsider’s Observations,” The East Coast Energy Group (April 16, 2004).

“Wholesale Procurement Strategies for the Restructured Electricity Markets: Experiences from the Field,” Platts First Annual Electricity Market Design Imperative, Chicago, IL (November 6, 2003).

“Power Plant Technologies and Characteristics,” The Harvard Institute for International Development’s Third Annual Program on Climate Change and Development, Cambridge, MA (June 19, 2000).

“Transmission Planning & Investment in the RTO Era,” with John Farr and Susan F. Tierney, workshop at Infocast Conference on Transmission Pricing, Chicago, IL (May 1, 2000).

“The US Market for Merchant Plants—Outlooks, Opportunities and Impediments,” CBI’s 4<sup>th</sup> Annual Profit from Merchant Plants Conference (January 31, 2000).

“Projecting Electricity Prices for a Restructured Electricity Industry,” EXNET Merchant Power Plant Conference, Washington, DC (June 3, 1999).

“Transmission Planning and Competitive Generation Markets: The New England Case,” EUCI conference on Transmission Restructuring for Retail Competition, Denver, CO (March 25, 1999).

“Key Issues in Ancillary Service Markets,” IBC’s conference on Pricing and Selling Ancillary Services in a Competitive Market Conference, San Francisco, CA (March 11, 1999).

“Successfully Forecasting the Price of Energy and Other Products,” workshop presented at IBC’s conference on Successful Load Profiling, San Francisco, CA (December 2, 1998).

“International Perspective: Lessons from the US Deregulation Experience,” Nordic Power ’98, Stockholm, Sweden (October 7, 1998).

“Successfully Forecasting the Price of Energy and Other Products in a Restructured Electric Power Industry,” workshop presented at IBC’s 3<sup>rd</sup> Strategic Forum on Market Price Forecasting, Baltimore, MD (August 24, 1998).

“Managing Market Share Loss with the Opening of Retail Markets to Competition,” Electric Utility Business Environment Conference, Denver, CO (June 24, 1998).

“Multi-Attribute Trade-Off Analysis for Water and Electricity Policy Development,” presented in Mendoza, Argentina, (July 1996 and April 1997).

“The Basics of Cogeneration,” Tufts University Forum on Energy Conservation (December 1993).

“Implications and History of the MIT Cogeneration Project,” presented to the Massachusetts Society of Professional Engineers (November 1993).

#### **CERTIFICATIONS/ACCREDITATIONS**

1992–Present Registered Professional Engineer, Commonwealth of Massachusetts

#### **PROFESSIONAL ASSOCIATIONS AND MEMBERSHIPS**

2002–2012 Board of Directors, Northeast Energy and Commerce Association

**VERIFICATION**

I, A. JOSEPH CAVICCHI, being the Vice President at Analysis Group, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 03/11/2024

*A. Joseph Cavicchi*  
A. Joseph Cavicchi (Mar 11, 2024 09:40 EDT)  
A. Joseph Cavicchi

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. P-2024-\_\_\_\_\_**

**PPL Electric Utilities Corporation**

**Statement No. 3**

**Direct Testimony of Melinda Stumpf**

Topic Addressed:           Standard Offer Program

**Date: March 12, 2024**

1 **I. INTRODUCTION**

2 **Q. What is your name and business address?**

3 A. My name is Melinda Stumpf. My business address is PPL Electric Utilities Corporation,  
4 827 Hausman Road, Allentown, PA 18104.

5  
6 **Q. What is your current position?**

7 A. I am the Director Customer Programs in PPL Electric’s Customer Services Department.

8  
9 **Q. What are your primary job responsibilities?**

10 A. I am responsible for the oversight and implementation of certain Company regulatory  
11 programs including PPL Electric’s universal service programs and the Act 129 Energy  
12 Efficiency program. The universal service programs include OnTrack (Customer  
13 Assistance Program or “CAP”), WRAP, Operation HELP (hardship fund), and Customer  
14 Assistance and Referral Services program (referral service or “CARES”). In addition, I  
15 lead various advocacy and outreach efforts for the Low-Income Home Energy Assistance  
16 Program (“LIHEAP”). The Act 129 Energy Efficiency program includes all of the  
17 residential and commercial energy efficiency programs available to our customers. Lastly,  
18 I am responsible for managing the team of key account managers who work with and assist  
19 the Company’s largest customers.

20

1 **Q. Have you testified in other Pennsylvania Public Utility Commission (“Commission”)**  
2 **proceedings or proceedings in any other jurisdiction?**

3 A. Yes. I previously testified before the Commission in support of PPL Electric’s Petition for  
4 the Approval of a Default Service Program and Procurement Plan (“DSP V Program”) at  
5 Docket No. P-2020-3019356.

6

7 **Q. What is your educational background and experience?**

8 A. I have an undergraduate degree in Business Administration from Muhlenberg College and  
9 a Master of Business Administration from St. Joseph’s University. Throughout my career  
10 at PPL Electric, I have served as a spokesperson for the Company, managed relationships  
11 with community leaders, key stakeholders and legislators, grew program participation for  
12 our low-income populations, managed the Company’s energy efficiency programs, and  
13 worked on high-level projects for some of our largest customers.

14

15 **Q. What is the purpose of your direct testimony?**

16 A. The purpose of my testimony is to provide an overview of the history of the Standard Offer  
17 Program (“SOP”), present the Company’s proposal to modify the SOP, explain why the  
18 SOP should be modified, and provide data supporting the modification of the SOP. I will  
19 also discuss changes to the SOP, which provide for additional customer protections, along  
20 with explanations and data supporting those changes. Additionally, I will present  
21 testimony on streamlining the process for customers to return to default service in order to  
22 enroll in OnTrack.

23

1 **Q. Are you sponsoring any exhibits with your testimony?**

2 A. Yes. I am sponsoring PPL Electric Exhibits MS-1, MS-2 and MS-3. PPL Electric Exhibit  
3 MS-1 includes the end of SOP term blaster call script, PPL Electric Exhibit MS-2 is a copy  
4 of the form email the Company sends to SOP customers at the end of their contract, and  
5 PPL Electric Exhibit MS-3 is the updated SOP Process and Rules Document (“SOP  
6 Rules”).

7  
8 **II. OVERVIEW OF THE SOP**

9 **Q. Please provide an overview of the Company’s SOP.**

10 A. The SOP was first established in PPL Electric’s DSP II Program. The SOP is available to  
11 residential customers, excluding CAP customers, and small commercial and industrial  
12 (“C&I”) customers under 25 kW peak demand. The SOP provides participants with a  
13 standard 7% discount off the then-current price to compare (“PTC”) for a twelve-month  
14 term. A customer who elects the standard offer price may choose to receive service from  
15 a particular electric generation supplier (“EGS”) that is participating in the program, and  
16 customers who do not choose a specific EGS are randomly assigned to an EGS. Customers  
17 may exit a standard offer contract at any time without penalty, either to re-enroll in the  
18 SOP with a new rate, to select another EGS, or to return to default service.

19

20 **Q. When does PPL Electric inform customers about the SOP?**

21 A. PPL Electric informs customers about the SOP in certain situations, such as when a  
22 customer calls in with a billing complaint or shopping question. PPL Electric does not  
23 inform customers about the SOP if they are already shopping or when a customer calls in

1 an emergency unless the customer explicitly asks about the program. Additionally,  
2 customers may enroll in the SOP via a web portal at any time.

3  
4 **Q. How many eligible customers participate in the SOP?**

5 A. From 2020 through 2023, an average of 50,006 customers per year enrolled in the SOP.

6  
7 **Q. How many suppliers participate in the SOP?**

8 A. The following charts show EGS participation in the SOP during each quarter of 2023. Of  
9 note, the SOP was not offered to residential or small C&I customers during the period of  
10 June 1, 2022, through December 1, 2022, because no suppliers enrolled to participate.

11 **EGSs Serving Residential Customers**

2023			
Q1	Q2	Q3	Q4
8	8	12	12

12  
13 **EGSs Serving Small C&I Customers**

2023			
Q1	Q2	Q3	Q4
4	4	4	4

14  
15 **Q. How do EGSs enroll to participate in the SOP?**

16 A. EGSs are not automatically enrolled to participate in the SOP. An EGS may participate in  
17 the SOP by meeting certain pre-qualification requirements and executing a SOP Binding  
18 Participation Form. The SOP Binding Participation Form commits the EGS to comply  
19 with the terms of the SOP. Currently, enrolled EGSs may elect, every six months, whether  
20 to participate in the SOP.

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**Q. How is the SOP administered?**

A. PPL Electric utilizes a third-party to administer the SOP.<sup>1</sup> When an eligible customer calls into PPL Electric’s Call Center, a PPL Electric Customer Service Representative provides the customer with a brief overview of the SOP. Any customer who is interested in the SOP is transferred to a separate, dedicated third-party service provider that will provide more detail regarding the SOP and enroll interested customers in the SOP. EGSs currently pay a fixed fee of \$28 per referred customer. The fee is invoiced to the EGS and paid to PPL Electric. PPL Electric then passes the fee to the third-party SOP vendor. PPL Electric does not receive any portion of the fee. In addition, customers who have elected to utilize PPL Electric’s Web Self Service program can choose to participate in the SOP without using the third-party service provider.<sup>2</sup> In these instances, the supplier is not charged a referral fee.

**Q. How many customer inquiries does the third-party SOP administrator handle on PPL Electric’s behalf?**

A. In 2023, the SOP administrator handled 27,224 SOP calls on PPL Electric’s behalf.

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<sup>1</sup> On June 5, 2023, PPL Electric notified the Commission that it was seeking the option to change its SOP vendor from Hansen Solutions (“Hansen”) to First Contact, LLC d/b/a iQor.

<sup>2</sup> Approximately 80% of customers enroll in the SOP via phone call with an agent of the third-party administrator, and approximately 20% of customers enroll in the SOP via the Web Self Service program.

1 **Q. What percentage of those calls resulted in SOP enrollment?**

2 A. Approximately 91% of those calls resulted in SOP enrollment.

3

4 **III. PPL ELECTRIC PROPOSES TO MODIFY THE SOP TO IMPROVE THE**  
5 **CUSTOMER EXPERIENCE**

6 **Q. What was the original purpose of the SOP?**

7 A. The SOP was created as a way to introduce customers to the competitive market and  
8 incentivize customer participation.<sup>3</sup>

9

10 **Q. Does PPL Electric incur costs related to administering the SOP that are not recovered**  
11 **through the referral fee paid by benefiting EGSs?**

12 A. Yes. PPL Electric's costs related to running the SOP are not entirely covered by EGS  
13 referral fees and have to be recovered through base rates.

14

15 **Q. What are the additional sources of costs attributable to the SOP that are not covered**  
16 **by the referral fee?**

17 A. Additional SOP-related costs incurred and not recovered by the referral fee include, but are  
18 not limited to, the call handling time for PPL Electric Customer Service Representatives  
19 prior to transferring calls to a third-party vendor and the time and resources spent  
20 investigating and responding to complaints related to SOP participation.

21

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<sup>3</sup> See *Final Order on Reconsideration*, Docket Nos. P-2012-228364 et al. (Order entered April 4, 2013), p. 2.

1 **Q. Who ultimately bears the costs related to responding to customer complaints**  
2 **regarding the SOP?**

3 A. These costs are recovered from the Company's customers, including those who do not  
4 utilize the SOP.

5  
6 **A. THE SOP CREATES "BRAND CONFUSION" FOR CUSTOMERS**

7 **Q. Does the SOP cause confusion for customers?**

8 A. Yes. Customers enroll in the SOP by either calling PPL Electric or visiting the Company's  
9 website. Many of these customers do not choose a SOP supplier and are under the mistaken  
10 belief that the SOP is a PPL Electric product. I'm aware of many situations where SOP  
11 customers called the PPL Electric call center and inquired about their SOP contract and  
12 were surprised to realize that they had a contract with a supplier. Customers view the SOP  
13 as a competitive option offered by PPL Electric, which does not ultimately support the  
14 advancement of the retail market.

15  
16 **Q. How does "brand confusion" impact the competitive market?**

17 A. In my experience, many customers view the SOP as a third competitive supply option  
18 offered by PPL Electric. These customers believe they can shop, be on default service, or  
19 enroll in the Company's SOP. While this is technically true, it was never the intent of the  
20 SOP to be on equal footing with other competitive options in the market. Rather, it is my  
21 understanding that the SOP is supposed to be an introduction to the competitive market, so  
22 that ultimately these customers would become regular participants in the retail market  
23 outside of the SOP.

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**Q. Is there any way to alleviate this “brand confusion”?**

A. Eliminating the SOP would be one option. However, if the program is to continue, additional communication would aid customers in understanding the role of the SOP. PPL Electric has communicated with customers nearing the end of their SOP contract, over the objection of RESA and NRG.<sup>4</sup> This communication serves as an additional reminder to customers that the SOP is a competitive product with an EGS. Later in my testimony I will discuss the additional communications that the Company is proposing to send to address the brand confusion caused by the SOP.

**Q. Can you provide examples of the communications that PPL Electric has provided to customers at the end of their SOP term?**

A. Yes. The Company has an automated blaster call to inform customers that their SOP contract is coming to an end. A copy of the blaster call script is attached as Exhibit MS-1. In addition, for customers that have provided the Company with their email address, PPL Electric sends a reminder email informing the customer that their SOP contract is about to expire. A copy of the form email is attached as Exhibit MS-2.

**Q. Do EGSs consistently participate in the SOP?**

A. Generally yes, however the SOP was not offered to residential or small C&I customers during the period of June 1, 2022, through December 1, 2022, because no suppliers enrolled

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<sup>4</sup> See *Petition for Declaratory Order of the Retail Energy Supply Association and NRG Energy, Inc.*, Docket No. P-2022-3036985 (Petition filed November 30, 2022).

1 to participate. This in turn creates customer confusion around the program and its  
2 availability. This also required the Company to make IT changes, modify its scripting and  
3 training for Customer Service Representatives, and create customer communication plans.  
4

5 **Q. How does the SOP not being offered because of lack of supplier participation affect**  
6 **customers?**

7 A. It creates customer confusion when PPL Electric is able to offer the SOP during some  
8 periods and not during other periods. As I mentioned earlier, many customers think the  
9 SOP is a PPL Electric product, and when it is not available these customers may think that  
10 the Company made a choice not to offer it. This can lead to customers being upset that  
11 they cannot enroll in SOP and blaming PPL Electric for the program not being offered.  
12

13 **Q. Would knowing whether there will be participating SOP suppliers sooner help the**  
14 **Company?**

15 A. Yes. Ideally, the Company would like to consistently have participating SOP suppliers.  
16 However, if there is a period where the program will go dark because of lack of supplier  
17 participation the sooner the Company knows the better. Under the current program, SOP  
18 suppliers are required to provide 5 days' notice. Having 20 days' notice as compared to 5  
19 would allow for customer communications to ease the transition from the SOP being  
20 offered to not being available. Additionally, this gives customers who may want to enroll  
21 in SOP prior to the program going dark more time to do so.  
22

1        **B.        CUSTOMERS ARE HARMED BY THE SOP IF THEY FAIL TO ACT**  
2        **AFTER THE SOP CONTRACT EXPIRES**

3        **Q.        What currently happens when a SOP customer’s contract expires?**

4        A.        Customers enrolled with an EGS through the SOP are deemed shopping customers. The  
5        Commission’s regulation at 52 Pa. Code § 54.10 provides details around the  
6        communications EGSs are required to make to customers at the conclusion of a contract.  
7        EGSs participating in PPL Electric’s SOP Program are responsible for notifying customers  
8        of the SOP contract’s end and the terms and conditions of the new post-SOP contract before  
9        their SOP contract expires. Upon the expiration of a customer’s SOP contract, the  
10       customer can choose to return to default service or enter a new shopping contract with the  
11       existing supplier or a new supplier. Unless the customer affirmatively elects to change  
12       suppliers or return to default service, the customer is automatically enrolled in a new  
13       contract with the customer’s existing supplier at a new rate. Analysis of customer actions  
14       after the conclusion of the SOP contract has shown that most customers do not take any  
15       action upon expiration of their SOP contract and therefore are placed on a new contract at  
16       a new rate with their existing supplier. This result is problematic because the customer’s  
17       new rate is oftentimes higher than the currently-effective PTC and higher than the  
18       customer’s previous rate.

19  
20       **Q.        Has PPL Electric conducted an analysis of customers rolling off the SOP?**

21       A.        Yes. The Company conducted a review of customers who rolled off the SOP from 2018  
22       through 2023.

1 **Q. How many customers take some action following the expiration of their SOP**  
2 **contract?**

3 A. The Company reviewed customers who reached the end of their twelve-month SOP  
4 contract.<sup>5</sup> The review examined their decisions for the four months following the  
5 expiration of their SOP contract. As shown on the Charts below, some customers  
6 consciously choose to take action upon expiration of their SOP contract, whether it be  
7 reenrolling in SOP with their current supplier, reenrolling in SOP and switching suppliers,  
8 returning to default service, or leaving the SOP and shopping with a new supplier.  
9 Approximately 35% of customers made one of these affirmative decisions upon expiration  
10 of their SOP contract. However, the majority of customers ended up in a new contract with  
11 their existing supplier outside of the SOP. The Company cannot determine the type of  
12 contract (month to month or longer term) that these customers are converted to at the end  
13 of their SOP contract term. As shown on Chart MS-1, the number of residential customers  
14 who remain with their existing supplier in a non-SOP contract slowly decreases each month  
15 following the expiration of their SOP contract. However, even after four months following  
16 the conclusion of their SOP contract, 50% of these customers continued to be served under  
17 a new contract with their prior SOP supplier.

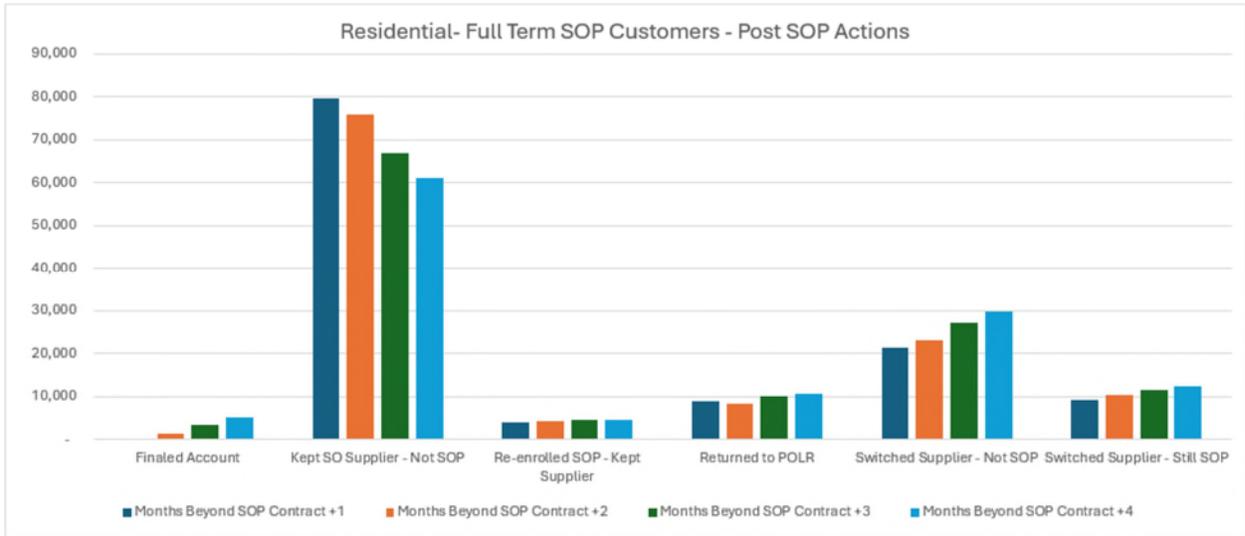
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<sup>5</sup> Some SOP customers leave their contracts before the conclusion of their contract term, for reasons not known to PPL Electric.

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**CHART MS-1**



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**Q. Did PPL Electric also examine the SOP experience of Small C&I customers?**

4

**A.** Yes. As you can see from Chart MS-2, similar trends are also evident with Small C&I customers. Over 51% of Small C&I SOP customers continued to be served by their SOP supplier under some form of new contract four months after the conclusion of their SOP contract.

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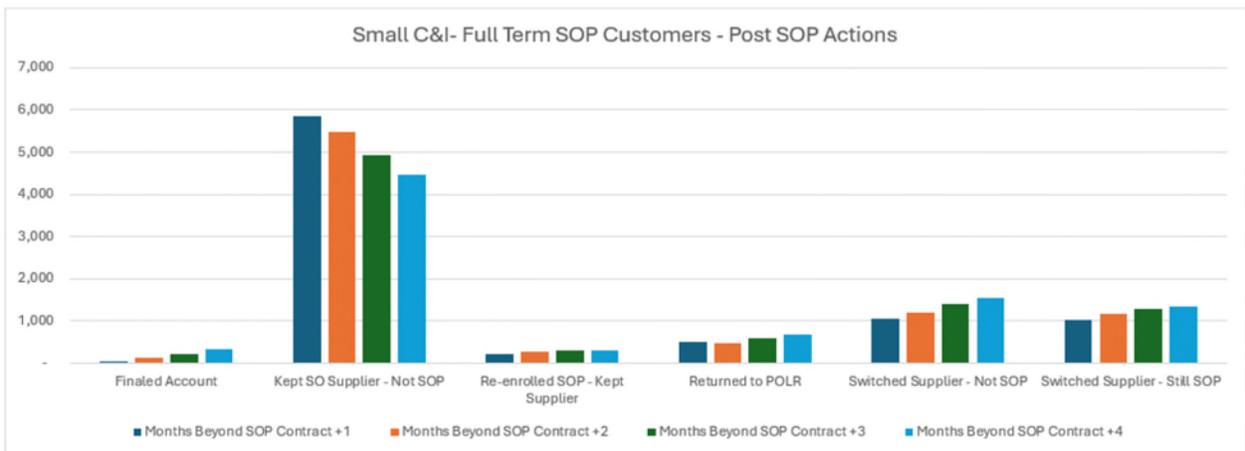
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**CHART MS-2**

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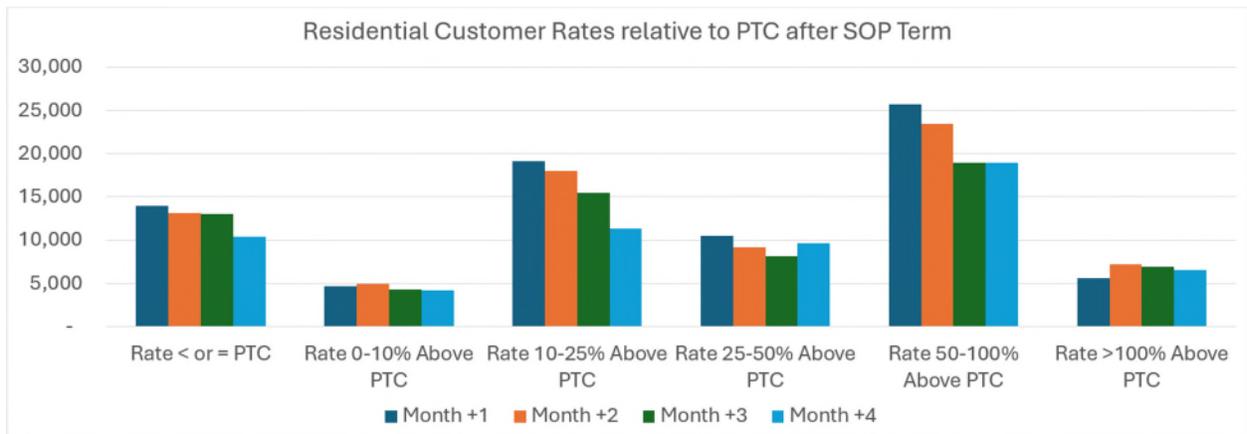
1 **Q. Is there a problem with SOP customers remaining with their supplier at the**  
2 **conclusion of their SOP contract?**

3 A. Not necessarily. If a customer is actively shopping, and concludes that their existing  
4 supplier should be retained, that is their choice. However, if customers are passively  
5 remaining with their supplier, and as a result are paying more than default service rates,  
6 this is a concern.

7  
8 **Q. Has PPL Electric conducted an analysis of the rates paid by those customers who**  
9 **retain their existing supplier upon expiration of their SOP contract?**

10 A. Yes. As you can see from the charts below, the majority of those customers (both  
11 Residential and Small C&I) paid a rate that was above the PTC.

12 **CHART MS-3**

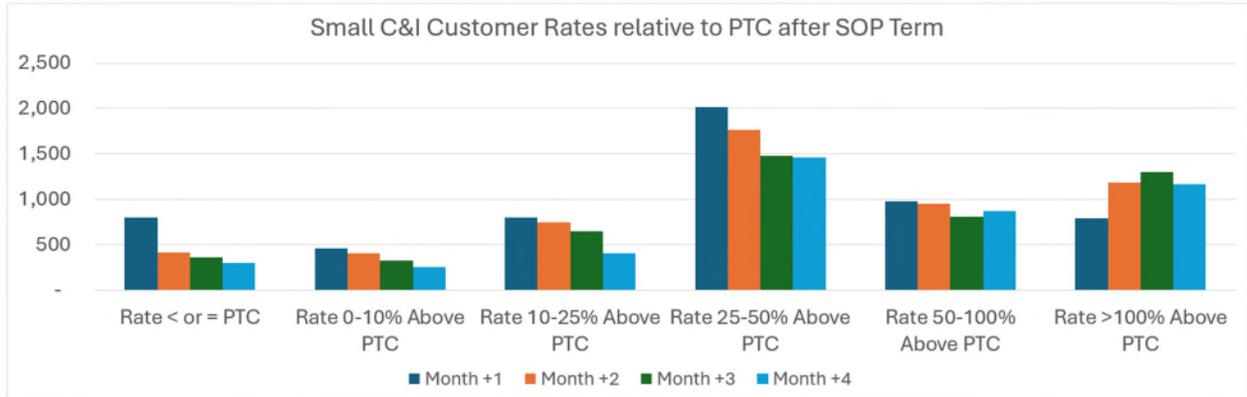


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**CHART MS-4**



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As the charts show, 82.45% of residential customers who remain with their SOP supplier after the conclusion of their SOP contract are paying a rate at or above the PTC in the first month following the end of their SOP contract. Even four months later, when approximately 18,000 customers have taken action, of the remaining customers, 82.91% are still paying rates at or above the PTC, with over 76.11% paying 10% or more above the PTC. Only 17.09% of these customers are paying rates at or below the PTC. For the Small C &I customers, as the charts show, 86.28% of Small C&I customers who remain with their SOP supplier after the conclusion of their SOP contract are paying a rate at or above the PTC in the first month following the end of their SOP contract. Even four months later, when approximately 1500 customers have taken action, the remaining 93.25% customers are still paying rates at or above the PTC, with over 87.45% of customers paying 10% or more above the PTC. Only 6.75% of these customers are paying rates at or below the PTC.

1 **Q. Please summarize the findings of your analysis of customers rolling off the SOP.**

2 A. PPL Electric finds that most customers who remain with their SOP supplier upon the  
3 conclusion of their SOP contract end up paying significantly more than the currently-  
4 effective PTC. PPL Electric is concerned that this is occurring simply because the  
5 customers are unaware that their contract is expiring. The practical impact to these  
6 customers is that whatever savings they realized while on the SOP quickly evaporate in the  
7 months following the end of the SOP contract because they are paying prices significantly  
8 higher than the PTC.

9

10 **Q. How long does it take customers to notice rate increases related to rolling off the SOP?**

11 A. The data shows that many customers do not take action for four months after the expiration  
12 of their SOP contract, and some customers take even longer. This includes some customers  
13 who are paying double the PTC from the time that their SOP contract ends.

14

15 **Q. Are customers enrolled in the Company's budget billing particularly impacted when  
16 they do not act after the SOP contract expires?**

17 A. Yes. Because the budget billing amount is updated quarterly, many budget billing  
18 customers will not realize the bill impact of the roll over to their bill amount until months  
19 later.

20

21 **Q. Is this of concern to PPL Electric?**

22 A. Yes. In some cases, this can lead to high billing complaints and even customers becoming  
23 payment troubled. It also is contrary to the purpose of shopping, which is to give customers

1 alternatives to reduce their electric bills. Additionally, customers associate their SOP  
2 contracts with PPL Electric, and in some instances PPL Electric is being blamed by  
3 customers for the increase in contract price after the SOP contract has expired.

4  
5 **Q. Has PPL Electric received any complaints from customers as a result of supplier**  
6 **actions following expiration of the SOP contract?**

7 A. Yes. In PPL Electric's experience, customers associate PPL Electric with the SOP contract  
8 and supplier actions following the expiration of the SOP contract. The Company has  
9 received complaints from customers regarding their generation supply price after the  
10 expiration of an SOP contract. PPL Electric has no control over what the EGS charges  
11 customers after the SOP, but is blamed nevertheless.

12  
13 **IV. PPL ELECTRIC'S PROPOSED MODIFICATIONS TO THE SOP**

14 **Q. What changes is the Company proposing to the SOP?**

15 A. The Company proposes to continue its SOP for the DSP VI Program period with the  
16 following changes: (1) require SOP suppliers to automatically transfer SOP customers to  
17 default service upon the expiration of the SOP contract unless the customer affirmatively  
18 elects to remain a shopping customer; (2) require suppliers to lock-in their participation  
19 status in the SOP 20 days before the start of the period rather than 5 days before; (3) allow  
20 electric distribution companies to communicate with customers to inform them that their  
21 SOP contract is ending; (4) allow the Company to utilize vendor(s) to facilitate the SOP  
22 and charge suppliers a referral fee of \$33 per customer referral; (5) require customer service  
23 representatives to offer the SOP to customers only once per month; and (6) modify the SOP

1 script to adjust for any changes that may be approved by the Commission. Each of these  
2 proposals is addressed in the following sections of my testimony.

3  
4 **Q. Has the Company drafted revisions to the SOP Rules document to reflect the**  
5 **proposed changes?**

6 A. Yes, and a redline of the SOP Rules document is attached hereto as PPL Electric Exhibit  
7 MS-3.

8  
9 **A. RETURN TO DEFAULT SERVICE AT EXPIRATION OF SOP**  
10 **CONTRACTS**

11 **Q. How does PPL Electric propose addressing the problems faced by customers rolling**  
12 **off the SOP discussed in Section III, above?**

13 A. PPL Electric proposes that upon the expiration of a customer's SOP contract, the  
14 customer's SOP supplier automatically transfer the customer to default service unless the  
15 customer affirmatively elects to remain a shopping customer. PPL Electric's proposal  
16 would prevent situations in which a customer's inaction upon expiration of the SOP  
17 contract leads to that customer being placed on a new contract with their existing EGS at a  
18 higher rate than the customer is accustomed to paying.

19  
20 **Q. Please summarize PPL Electric's proposal to return customers to default service at**  
21 **the PTC upon the expiration of SOP contracts.**

22 A. PPL Electric's proposal is to require, as a term of the SOP, that upon the expiration of the  
23 customer's SOP contract, the customer's SOP supplier would automatically transfer the  
24 customer to default service. Customers would be informed of this automatic transfer at the

1           outset of the SOP contract and would enter the program by consenting to be returned to  
2           default service at the expiration of the SOP contract if they take no affirmative action.  
3           Customers who affirmatively select a new contract with an EGS, either through reenrolling  
4           in a new SOP contract or otherwise accepting a contract offer from an EGS, would not be  
5           returned to default service.

6  
7       **Q.   How will PPL Electric notify customers that they will be transferred to default service**  
8       **upon expiration of their SOP contract unless they elect otherwise?**

9       A.   PPL Electric proposes that as a term of participating in the SOP, SOP suppliers agree to  
10       provide an additional notice to SOP customers.  This notice will explain that the SOP  
11       contract is ending and detail what the customer is currently paying for generation supply  
12       as compared to what they will be paying when the SOP contract expires.  The notice will  
13       also include the PTC that is in effect at the time of SOP contract expiration.  This notice  
14       will request that the customer make an affirmative choice to stay with the SOP supplier or  
15       to be returned to default service.  If the customer does not respond, the SOP supplier will  
16       be obligated to switch the customer to default service upon the expiration of the SOP  
17       contract.

18  
19       **Q.   Will this change help avoid the “brand confusion” discussed in Section III.C of this**  
20       **testimony, above?**

21       A.   Yes.  Returning customers who take no affirmative action at the end of their contract to  
22       default service will help customers understand that, if they elect to shop, they will be doing  
23       so through an EGS, not through PPL Electric.  This process provides the customer with

1 important information to enable them to make an informed decision regarding whether to  
2 shop independently upon expiration of the SOP contract.

3  
4 **Q. Will PPL Electric communicate with customers about the conclusion of their**  
5 **contract, and when will the Company do so?**

6 A. Yes. PPL Electric will continue to send SOP customers an email (for those customers who  
7 have agreed to electronic communication) and a blaster call in the eleventh month of their  
8 SOP term. These communications will be substantially similar to the current  
9 communications attached as Exhibits MS-1 and MS-2 respectively.

10  
11 **Q. Is PPL Electric's proposal consistent with the original intent of the SOP?**

12 A. Yes, the SOP was created as a way to introduce customers to the competitive market and  
13 incentivize customer participation.<sup>6</sup> PPL Electric's proposal preserves SOP's original  
14 purpose by introducing customers to the competitive market through the SOP and  
15 educating customers regarding their options to shop independently of the SOP. PPL  
16 Electric's proposal continues to promote participation in the competitive market while  
17 protecting those customers who do not take action upon expiration of their SOP contract  
18 from paying rates considerably above the PTC, simply because they did nothing.

19  

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<sup>6</sup> See *Final Order on Reconsideration*, Docket Nos. P-2012-228364 et al. (Order entered April 4, 2013), p. 2.

1 **Q. How will PPL Electric’s proposal impact those customers who decide to take**  
2 **affirmative action upon expiration of their SOP contract?**

3 A. Under PPL Electric’s proposal, customers will still be able to make those decisions that  
4 they believe will benefit them. Customers will be moved to default service upon expiration  
5 of their SOP contract only if they do nothing. Thus, the Company’s proposal is simply  
6 designed to protect those “passive” customers from paying rates that are much higher than  
7 the PTC simply because they enrolled in the SOP and did nothing thereafter.

8  
9 **Q. Would customers who are moved to default service be eligible to re-enter the SOP?**

10 A. Yes. Just as customers are able to re-enroll on the SOP if the new SOP rate decreases or  
11 at the conclusion of their SOP contract, so too can those customers who are moved to  
12 default service at the conclusion of the 12-month contract.

13  
14 **Q. Would customers who are moved to default service be eligible to shop with an EGS**  
15 **outside of the SOP at any time?**

16 A. Yes, and they can use the educational materials provided by PPL Electric to assist in the  
17 shopping process.

18  
19 **Q. If permitted by the Commission, how would these customers be returned to default**  
20 **service at the end of their SOP contract?**

21 A. SOP suppliers would be required to execute an Electronic Data Interchange (“EDI”) order  
22 to switch the customer to default service from the expiring SOP contract. PPL Electric will  
23 update its SOP Rules document, along with the SOP Binding Participation Form to make

1 explicit that this obligation is a condition of a particular supplier participating in SOP. If  
2 a supplier fails to execute the switch, and the customer pays more than they would have on  
3 default service, the supplier would be liable to the customer for the difference between the  
4 price paid for generation and the price of default service for the time period after the SOP  
5 contract expires until the customer switches to a different generation product.

6  
7 **Q. Is there any other way that these passive customers can be protected?**

8 A. Yes. PPL Electric believes that returning customers to default service who take no action  
9 at the end of their SOP contract is the most effective way to protect these customers.  
10 However, in the alternative, additional communication from the SOP suppliers could be  
11 beneficial to helping these customers.

12  
13 **Q. Do you have a suggestion as to what form this additional supplier communication  
14 would take?**

15 A. Yes. A SOP supplier would have an obligation to communicate to a customer after the  
16 expiration of a SOP contract each month until the customer takes some affirmative action.  
17 The communication would explain that the customer's SOP contract has ended, provide  
18 the rate supplier is currently charging as compared to the rate the customer was paying  
19 under the SOP contract, and provide the current PTC. The communication would include  
20 instructions to the customer on how to choose what action to take after the SOP contract  
21 expires. These options would include staying with the current supplier, being returned to  
22 default service, or shopping for a different competitive product on PA Power Switch.com,  
23 etc. Once the customer takes some affirmative action on their generation supply after their

1 SOP contract expires, the supplier's obligation to send this monthly communication will  
2 end.

3  
4 **Q. Do you think this post-contract communication will be helpful to customers?**

5 A. I do. As I mentioned earlier, the SOP is a unique product. Customers may be calling PPL  
6 Electric about a topic unrelated to shopping for generation supply when they agree to enter  
7 SOP. These customers may not fully appreciate what will happen at the end of their SOP  
8 term. Also, the SOP is an introductory product which attracts customers who are new to  
9 shopping. SOP customers may not have any direct interactions with their supplier, unlike  
10 other competitive supply options where the customer is choosing a supplier and having  
11 direct contact with that supplier during the enrollment process. For these reasons,  
12 additional communications and protections are warranted for SOP customers.

13  
14 **B. EGS ENROLLMENT CONFIRMATION**

15 **Q. Please describe the current process for EGS enrollment in the SOP.**

16 A. The current process is detailed in the Company's SOP Rules document. Initially, an EGS  
17 must be licensed by the Commission to participate in the SOP. An EGS wishing to  
18 participate must go through a pre-qualification process and be certified to exchange data  
19 through PPL Electric's EDI system. Once certified, the EGS must notify PPL Electric of  
20 its intent to participate in the upcoming bi-annual offering.

21  
22 **Q. When can an EGS enter and exit the SOP?**

23 A. Currently, EGSs can choose to participate and exit SOP every six months.

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**Q. When must suppliers lock-in their participation status in the SOP?**

A. Currently, EGSs must indicate their intention to participate in the SOP at least 5 days prior to the start of the period. Once EGSs have indicated their intent to participate in the SOP they are required to participate in the SOP for the entire six-month SOP period.

**Q. Is PPL Electric proposing any changes with respect to EGS confirmation of enrollment in the SOP?**

A. Yes. PPL Electric is proposing that the EGSs must indicate their intention to participate in the SOP at least 20 days prior to the start of the period. Under this change, once EGSs have indicated their intent to participate in the SOP they will not be able to withdraw their enrollment in the SOP within 20 days of the start of the period.

**Q. Why is PPL Electric proposing to change the EGS notice of enrollment?**

A. This allows PPL Electric to timely communicate changes to the SOP. The public looks to the Company for updates on the SOP, and to avoid confusion the Company needs to provide effective communication regarding the program. As an example, in 2022 when the SOP went dark because of lack of supplier participation the Company had only 5 days to develop a plan to communicate to the public that the program would not be available. While the Company ultimately was able to communicate this information to its customers, having additional time would have allowed for more effective messaging to the public.

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**C. USE OF THIRD-PARTY VENDOR AND REFERRAL FEE**

**Q. Does PPL Electric plan to continue using a third-party administrator to handle SOP enrollments?**

A. Yes. PPL Electric currently uses Hansen as its third-party administrator for SOP but plans on switching to IQor prior to the start of DSP VI. The Company plans on using IQor for DPS VI, however it may decide to change vendors during the DSP VI period. If the Company would change vendors, it would engage any new vendor under the same terms and conditions approved in this proceeding or seek approval for a modification from the Commission.

**Q. Does the Company propose any changes to the current SOP referral fee?**

A. Yes. Based on the recommendations of IQor, the Company is proposing to increase the referral fee charged to EGSs from \$28 to \$33 per customer referral.

**Q. Why is the proposed increase in the referral fee necessary?**

A. The referral fee of \$28 has been in place since the inception of the SOP in 2013. This is no longer a market rate for this type of service. The modest increase proposed by the Company is needed so that its vendor can be compensated appropriately for the service being provided.

1           **D.      FREQUENCY OF CUSTOMER REFERRALS TO THE SOP**

2           **Q.      Are PPL Electric’s Customer Service Representatives currently required to offer the**  
3           **SOP to eligible default service customers who contact the Company?**

4           A.      Currently, PPL Electric Customer Service Representatives are required to offer the SOP to  
5           all eligible PPL Electric default service customers who contact the Company call center,  
6           with the exception of those calling for an emergency or for termination of services.

7  
8           **Q.      What change is the Company proposing to this referral requirement?**

9           A.      PPL Electric proposes that CSRs be required to offer the SOP to customers once per month,  
10           rather than during every contact.

11  
12           **Q.      Why is the Company proposing to limit the number of SOP referrals to once per**  
13           **month?**

14           A.      Offering the SOP during every contact can be confusing or irritating to customers. If a  
15           customer has called in and declined the SOP they have made their choice clear to the  
16           Company. If the Company is repeatedly offering the SOP, even after the customer has said  
17           no, it may lead the customer to believe that the Company is not listening to or doesn’t care  
18           about their wishes. Not having a limit on the number of times the SOP is offered leads to  
19           a bad customer experience.

20  
21           **Q.      Is PPL Electric proposing any changes to the SOP scripting?**

22           A.      Potentially. Scripting changes may be appropriate if the Commission approves the  
23           Company’s requested changes regarding returning customers to default service, or

1 obligating SOP suppliers to communicate with customers until those customers take an  
2 affirmative action upon expiration of the SOP contract. The Company commits to working  
3 with stakeholders to develop scripting changes that may be appropriate after the  
4 Commission rules on the Company's petition.

5  
6 **E. CHANGES TO CAP SHOPPING**

7 **Q. Can you explain the history of CAP customers being able to shop for generation**  
8 **supply?**

9 A. Yes. PPL Electric's CAP is branded as OnTrack. Originally, OnTrack customers were  
10 able to shop like any other customer. This resulted in many OnTrack customers paying  
11 prices above the PTC. In turn, shopping OnTrack customers would exhaust their CAP  
12 credits earlier, and the program was more expensive for the rest of residential customers  
13 paying for it.

14 Starting in DSP IV, OnTrack customers were only allowed to shop in the CAP SOP.  
15 The CAP SOP required participating suppliers to give OnTrack customers a fixed rate  
16 contract at 7% off the current PTC for a 12-month term. There was no early termination  
17 fee associated with a CAP SOP contract, and customers were returned to default service  
18 at the end of their contract.

19 CAP SOP failed for two reasons. First, for whatever reason, there was little to no  
20 supplier support for CAP SOP. This resulted in the program being dark for long periods  
21 of time. Second, it didn't require a customer to terminate their existing supplier contract  
22 upon enrollment in OnTrack. CAP SOP proved ineffective at preventing customers from  
23 having supplier contracts with prices above the PTC while enrolled in OnTrack.

1 As a result, PPL Electric proposed and received approval in its DSP V proceeding to  
2 disallow OnTrack customers from having a supplier contract. Currently, the Company's  
3 OnTrack rules require a customer to cancel their supplier contract as a condition of  
4 enrollment in the program.

5  
6 **Q. Has the prohibition of OnTrack customers shopping been successful?**

7 A. Yes, essentially no OnTrack customers are paying prices above the PTC. There are a  
8 handful of customers who, due to the timing of their enrollment, end up shopping while  
9 enrolled in OnTrack. However, the Company works to identify these customers and have  
10 them return to default service in order to remain in the program. The vast majority of  
11 OnTrack customers are paying the PTC, which keeps OnTrack costs down and helps  
12 OnTrack customers take full advantage of the program's benefits.

13  
14 **Q. What is the process for a shopping customer to enroll in OnTrack?**

15 A. The customer starts the enrollment process like any other customer. When it is determined  
16 that they are shopping, the customer is informed that they have 15 days to contact their  
17 supplier and cancel their contract. If this does not occur, the customer's OnTrack  
18 application is rejected. The original concern was that PPL Electric does not know if the  
19 customer would be subject to early termination fees if they canceled their contract early.  
20 By having the customer contact their supplier and cancel the contract, the customer would  
21 be informed of any early termination fees and make an informed decision about entering  
22 OnTrack.

23

1 **Q. Has the process of requiring OnTrack applicants to contact their suppliers and cancel**  
2 **their contracts worked?**

3 A. Yes, but it could be improved upon. The process has prevented OnTrack customers from  
4 shopping, which is the intent. However, requiring customers to cancel their supplier  
5 contracts on their own, rather than allowing the Company to return them to default service,  
6 can sometimes be a barrier to customer enrollment. It is my understanding that the  
7 FirstEnergy companies have a process where the utility automatically returns CAP  
8 applicants to default service upon enrollment.<sup>7</sup> Additionally, suppliers are prohibited from  
9 charging CAP applicants an early termination fee.

10

11 **Q. Is PPL Electric proposing to have a similar process as the FirstEnergy companies?**

12 A. Yes. PPL Electric would like to continue to prohibit OnTrack customers from shopping  
13 but modify its procedures so that the Company can automatically return OnTrack  
14 customers to default service upon enrollment in OnTrack. Additionally, the Company  
15 requests that the Commission order that suppliers are prohibited from charging early  
16 termination fees to customers who terminate their contracts to enroll in OnTrack.

17

18 **Q. Does this conclude your Direct Testimony?**

19 A. Yes, however I reserve the right to supplement my testimony as additional issues arise.

---

<sup>7</sup> See *Petition of Metropolitan Edison Company for Approval of Its Default Service Plan for the Period : From June 1, 2023 through May 31, 2027, et al.*, Docket Nos. P-2021-3030012 *et al.* (Order entered August 4, 2022).

# **Exhibit MS-1**

**Exhibit MS-1**  
**End of SOP Term Blaster Call Script**

**MS-1 – Blaster Call Text**

*This is a message from PPL Electric Utilities regarding your one-year energy supply contract. Last [month of enrollment], you enrolled on the Standard Offer Program at a 7% discount off the PPL Electric Price to Compare at the time of enrollment. Although you've been saving since then, your contract ends soon. Check your current rate and contract terms and compare your options. For more information, visit [ppllectric dot com slash shop smart](http://ppllectric.com/shop-smart).*

# **Exhibit MS-2**

**Subject:** Your one-year energy supply contract ends soon

**Preheader:** More info on the Standard Offer Program

Having trouble reading this email? [View email in a browser](#)

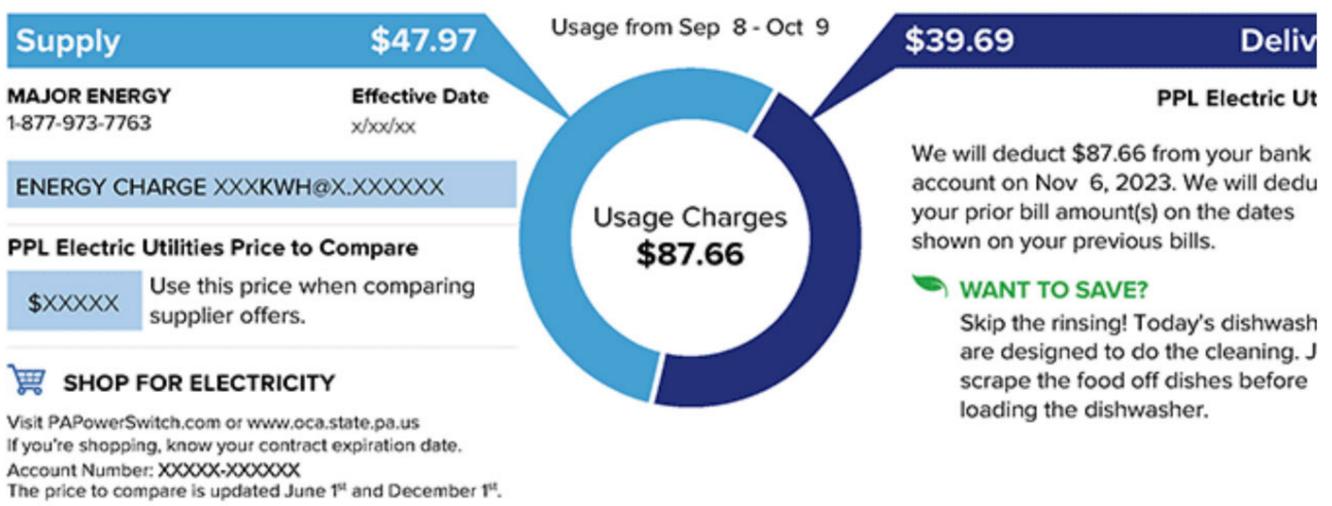
[My Account](#) | [Outages](#) | [Ways to Save](#)



## Your one-year energy supply contract ends soon

Last December, you enrolled in the Standard Offer Program with an alternative supplier. **This program offers a 7% discount off the PPL Electric Price to Compare at the time of enrollment and is fixed for 12 months with no cancellation fees.**

Although you've been saving with the Standard Offer Program, your contract ends soon. Now is a good time to review your supplier's price and contract terms to see if you're getting the best deal. You can find the supply price at the top of your bill or on your online PPL Electric account.



You will also receive letters or emails from your current supplier before your Standard Offer contract ends. They'll include information about your new contract and rate, and whether it's fixed or variable. You can stay with your current supplier per their new contract terms, re-enroll on the Standard Offer Program, return to the PPL Electric default rate or shop for a new supplier.

Whatever you decide, use the Price to Compare as a reference to compare your options and see if you can save.

[Compare rates](#)

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%%member\_busname%% | %%member\_addr%% | %%member\_city%%, %%member\_state%% | %%member\_postalcode%%

# **Exhibit MS-3**

**Exhibit MS-3  
Standard Offer Program Process and Rules**

**PPL Electric Utilities Corporation**

**Standard Offer Program  
Process and Rules**

**Dated: [EFFECTIVE DATE]**

**STANDARD OFFER PROGRAM PROCESS and RULES**

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# ARTICLE 1 INTRODUCTION

## 1.0 Introduction

- 1.1 This Standard Offer Program Process and Rules document (“SOP Rules”) defines the processes and rules for PPL Electric Utilities Corporation’s (“Company” or “PPL Electric”) Standard Offer Program (“SOP” or “Program”), implemented pursuant to the Pennsylvania Public Utility Commission’s (“PA PUC” or “Commission”) Final Order to PPL Electric Utilities Corporation Default Service Program and Procurement Plan V at Docket No. P-2020-3019356.
- 1.2 PPL Electric is issuing this SOP Rules document, as a continuous program from June 1, 2021 through May 31, 2025, to solicit participation from Retail Electric Generation Suppliers (“EGS”) in a customer referral program, to serve Residential and Small Commercial & Industrial (“Small C&I”) Customer Groups. Customers who are net metered or who are participating in OnTrack<sup>1</sup> are not eligible to participate in the SOP. The Residential Customer Group is defined on the basis of the Company’s existing specific rate schedules as shown in the following table. The Small C&I Customer Group is defined as those customers under 25kW demand and subsequently on the basis of the Company’s existing specific rate schedules as shown in the following table. To the extent an existing rate schedule is modified, or replaced by successor rate schedules, PPL Electric, at its sole discretion, will place that rate schedule in the appropriate Customer Group.

Customer Group	Rate Schedule	Description
<b>Residential</b>	RS	RS – Residential Service
	RTS	RTS(R) – Residential Service – Thermal Storage
<b>Small Commercial &amp; Industrial</b>	GS-1	GS-1 – Small General Service
	GS-3	GS-3 – Large General Service – Customers with less than 100 kW peak demand
	GH-2	GH-2(R) – Separate Meter General Space Heating Service
	LP-4	LP-4 – Large General Service (12 KV or Higher) – Customers with less than 100 KW peak demand
	BL	BL – Borderline Service – Electric Utilities
	SA	SA – Private Area Lighting
	SM	SM(R) – Mercury Vapor Street Lighting
	SHS	SHS – High Pressure Sodium Street Lighting
	SE	SE – Energy Only Street Lighting Service
	SLE	SLE – Light Emitting Diode (LED) Street Lighting Service
TS	TS(R) – Municipal Traffic Signal Lighting Service	

<sup>1</sup> OnTrack is PPL Electric’s Customer Assistance Program.

	SI-1	SI-1(R) – Municipal Street Lighting
	Standby	Rule 6A – Standby Service for Qualifying Facilities applicable to customers in the above listed rate schedules.

- 1.3 Customers participating in the SOP will receive a fixed rate for a twelve-month period that is equal to a 7% discount off the Price-to-Compare (“PTC” or “Default Service”) in effect at the time the customer enrolls in the SOP.
- 1.4 A Participating EGS, subject to the qualification requirements discussed in Article 4, will provide retail supply for eligible Residential and/or Small C&I customers who elect to participate in the Program and who are successfully enrolled into the Program as discussed in Article 5. Any Participating Customer may return to Default Service or choose another EGS in accordance with the Company’s standard switching requirements, without penalty.
- 1.5 EGSs interested in participating in the Program must initially meet Pre-Qualification Requirements to participate as provided in Section 4.2.
- 1.6 Once all Pre-Qualification Requirements are met, an EGS must meet the SOP Period Qualification Requirements in order to be an EGS Participant in any SOP Period (hereinafter defined). Section 4.3 details the Qualification requirements.
- 1.7 If during any SOP Period there are no EGSs meeting the Pre-Qualification Requirements to participate in the Program, or if no pre-qualified EGSs have met the SOP Period Qualification Requirements, the program will not be offered for that SOP Period. There must be at least one (1) qualified EGS with a submitted rate code for either the Residential or Small C&I Program. If a rate code is not submitted for either customer class, then that class (without a rate code) will not have a Program offering for that SOP Period.
- 1.8 Each Participating EGS must pay its share of the Program costs as set forth in Article 7.
- 1.9 Participating EGSs are required to independently maintain their own data and information for all customers enrolled in the Program. The Company is not responsible for the reporting of any information on the Program for Participating EGSs. See Article 8 for more information.
- 1.10 Definitions:** In addition to terms defined elsewhere in this SOP Rules, the following definitions shall apply:

“CAP customers” means a residential customer enrolled in PPL Electric’s Customer Assistance Program, OnTrack.

“EDI” – Electronic Data Interchange, which is a standardized format for the electronic transfer of data between entities.

“Electric Generation Supplier” or “EGS” is defined as a retail generation supplier.

“Eligible Customers” include any default service Residential customer, with the exception of CAP customers, or Small Commercial & Industrial customer less than 25kW who contacts PPL Electric’s Call Center, other than for termination or emergency calls. This also includes any eligible shopping customer that actively requests participation in the Program. See Section 1.2 for a list of eligible customer rate classes by customer group.

“Participating EGS” or “EGS Participant” is an EGS that has successfully met Pre-Qualification and SOP Period Qualification Requirements.

“Participating Customer” means any Eligible Customer that affirmatively elects to participate and successfully enrolls in the Program.

“Program Costs” means the costs that PPL Electric will incur to administer and communicate the Program to Eligible Customers.

“Program Term” means the period beginning on June 1, 2025 through May 31, 2029.

“Price-to-Compare Period” or “SOP Period” means the six (6) calendar month periods as follows: June – November and December – May.

“Pre-Qualification Requirements” are those requirements that any interested EGS must complete to initially qualify for the Program, as set forth in Article 4 of this SOP Rules document.

“SOP Period Qualification Requirements” are those SOP Period requirements, corresponding to the Price-to-Compare Period, that an EGS must complete once meeting all Pre-Qualification Requirements, as set forth in Article 4 of this SOP Rules document.

“Rate Ready Billing” means the billing scenario in which the EGS provides the Company its billing rates so that the Company can complete the billing calculation and bill delivery.

## **ARTICLE 2 INFORMATION AND SCHEDULE**

### **2.0 Information and Schedule**

- 2.1 PPL Electric will post information for this Program on the PPL Electric website on its General Supplier Information webpage: <https://www.pplelectric.com/utility/about-us/for-generation-suppliers/general-supplier-reference-information/standard-offer-program.aspx>. This website will serve as the main source of information for the Standard Offer Program. Prospective EGS Participants are requested to use this website for current information about all aspects of this Program and to access all essential documents.
- 2.2 The Program will be offered by PPL Electric to all Eligible Customers starting in June 2025. The Program will be offered on a semi-annual basis based upon the SOP Period.

## **ARTICLE 3 GENERAL REQUIREMENTS**

### **3.0 General Requirements**

- 3.1 Participating EGSs must adhere to the terms and conditions of the Program and fulfill all requirements of this SOP Rules document and Standard Offer Program Binding Participation Form. In the event a Participating EGS fails to adhere to the Program terms and conditions, the Participating EGS will not be allowed to participate in the Program.
- 3.2 The submission of the Standard Offer Program Binding Participation Form to the Company constitutes the Participating EGS's acknowledgement and acceptance of all the terms and conditions of this SOP Rules document.
- 3.3 All Representations in this Program and documents executed must be done by an individual authorized to: (1) make contractual commitments on behalf of the Participating EGS to provide retail customer generation supply; and (2) financially bind the Participating EGS.
- 3.4 Participation in this Program shall constitute an Agreement by the Participating EGS to abide by the terms and conditions of the Program as set forth herein. In the event of a material default by a Participating EGS in any of its obligations under this Program, PPL Electric shall have the right to terminate the Participating EGS's participation in the Program upon providing 10 business day written notice of the default to the Participating EGS, directed to the contact listed in Exhibit 2. The Participating EGS shall be permitted to continue participating in the Program if it

cures the default during the 10 business day notice period. PPL Electric also may seek whatever remedies, including but not limited to reasonable attorneys' fees, to which it may be entitled before the Commission, or a court of competent jurisdiction. The venue for any court action shall be in the Court of Common Pleas for Lehigh County or in the District Court for the Eastern District of Pennsylvania in Allentown.

## **ARTICLE 4**

### **EGS Qualification Requirements**

#### **4.0 EGS Qualification Requirements**

4.1 The EGS Qualification requirements are broken down into two components: (1) Pre-Qualifications (Section 4.2); and (2) SOP Period Qualifications (Section 4.3).

4.2 Pre-Qualification Requirements:

4.2.1 All EGSs must complete a one-time, pre-qualification process to allow the EGS access and future participation in the Program. Pre-qualification is composed of two primary steps: (1) Certification requirements (Section 4.2.2); and (2) Document completion and execution (Section 4.2.3).

4.2.2 Pre-qualification initially opened July 1, 2013, and remains open on a rolling basis. In order to pre-qualify for participation in any SOP Period, EGSs must submit all materials (as defined in this Article 4) at least 5 business days prior to the start of a new SOP Period. Pre-qualification is a one-time submission event.

4.2.3 Certification:

4.2.3.1 An EGS must be licensed as an EGS by the Commission with authority to provide service to Residential and/or Small C&I customers in PPL Electric's service territory. If an EGS loses its license to serve customers in PPL Electric's service territory it may not participate in the Program.

4.2.3.2 An EGS must be registered with PJM Interconnection LLC ("PJM") as an EGS to participate in the Program.

4.2.3.3 An EGS must be certified by PPL Electric to exchange data using the EDI process, through the EDC consolidated billing level. EGSs must be certified by PPL Electric as Rate Ready Billing.

4.2.3.4 All EGSs must meet the certification requirements on or before 20 business days prior to the start of a SOP Period to be eligible to participate in the Program (contingent upon completion of the additional qualification requirements set forth in Section 4.2 and 4.3). Furthermore, EGSs must meet the certification requirements prior to PPL Electric accepting the Standard Offer Program Binding Participation Form and Standard Offer Program Contact Form.

4.2.3.5 Any EGS that is already Rate Ready Billing certified by the Company is already deemed certified and does not have to recertify to pre-qualify.

#### 4.2.4 Documentation:

4.2.4.1 Every EGS must complete and execute the Standard Offer Program Binding Participation Form (Exhibit 1). The Standard Offer Program Binding Participation Form must be executed by an Authorized Individual of the EGS. Additionally, every EGS must fully complete the Standard Offer Program Contact Form.

4.2.4.2 Hardcopies of both the Standard Offer Program Binding Participation Form and Standard Offer Program Contact Form must be received in hard-copy format by PPL Electric at least 20 business days prior to the start of a SOP Period in order for the EGS to be eligible to participate in the Program (contingent upon completion of the additional qualification requirements set forth in Section 4.2 and 4.3). Any EGS failing to execute these documents will result in PPL Electric eliminating that EGS from participating in the Program until such time that the EGS submits completed and executed materials. It is of the sole responsibility of the EGS to cure any deficiency in the documentation materials.

4.2.4.3 All correspondence should be mailed to:

PPL Electric Utilities Corporation  
Standard Offer Program  
827 Hausman Road, LEHSC  
Allentown, PA 18104  
Attn: Manager – Billing Operations

#### 4.3 SOP Period Qualification Requirements:

- 4.3.1 Each Participating EGS that is pre-qualified must notify the Company via e-mail of their intent to participate in the upcoming SOP Period, including identifying the Customer Groups in which they intend to serve. The Participating EGS must notify the Company by e-mail (see Section 4.3.2 for the contact e-mail address) on or before 20 business days prior to the start of the SOP Period. If the Participating EGS does not notify the Company of their intent to participate, they will not be included in that SOP Period's Program.
- 4.3.2 A Participating EGS that has indicated its intent to participate in the SOP Period's Program may not withdraw its enrollment in the SOP within 20 days of the start of the SOP Period.
- 4.3.3 All communications regarding an EGSs intent to participate in an SOP Period Program must be made to the following e-mail address: PPLUtilitiesSupplier@pplweb.com.

## **ARTICLE 5**

### **Customer Communications and Customer Allocation Process**

#### **5.0 Customer Communications and Customer Allocation Process**

- 5.1 The Program will be initially offered by the Company to all Eligible Customers who contact the Company call center, with the exception of those defined in Sections 5.1.4 and 5.1.5. Before offering the Program, the Company will first resolve the customer's concerns or inquiry that was the reason for the call. The initial Program offering will only include a summary overview of the Program – upon interest of the customer, they will be transferred to a third-party to learn more information and enroll.
  - 5.1.1 The Company will offer the Program to new or moving customers upon completing new account set-up.
  - 5.1.2 Enrolled CAP customers are not eligible to participate in this Program.
  - 5.1.3 Residential and Small C&I less than 25kW shopping customers in the PPL Service territory calling the Company will not be actively offered the Program. If a shopping customer actively inquires about the Program, the Company will allow for the customer's participation and inclusion. The Company will explain to the customer that terminating their existing shopping contract to participate in SOP may trigger early termination fees.
  - 5.1.4 The Company will not offer the Program to Eligible Customers calling for an emergency or for termination of service.

- 5.1.5 The Company will not offer the Program to Eligible Customers more than once per calendar month.
- 5.2 Customers interested in the Program will be transferred from PPL Electric to a third-party vendor, who will then give the customer additional information on the Program and allow the customer to enroll. Customers who have a specific EGS in mind may enroll with that EGS. Otherwise, customers will be told that they will be randomly assigned to a Participating EGS.
- 5.3 If during any SOP Period there are no EGSs meeting the SOP Period Qualification Requirements, the Program will not be offered to customers for that SOP Period. If such an event occurs, Company call scripts will be modified to not offer the Program.
- 5.4 The Company will utilize an algorithm to randomly assign customers to Participating EGSs. The algorithm is designed to assign an equal amount of customers to Participating EGSs. As the customer accounts get assigned to a Participating EGS, the accounts will be added to each Participating EGS's referral report in real time.
- 5.5 At any point during the day, a Participating EGS can access customer-specific data and information for those customers which have been assigned to the Participating EGS through the supplier portal. This data is available via the Company's Supplier portal for each participating supplier at:  
<https://supplier.prod.pplweb.com/eusupplierportal/Secured/Retail/SOReferrals.aspx>

## **ARTICLE 6**

### **Participating EGS Obligations**

#### **6.0 Participating EGS Obligations**

- 6.1 All Participating EGSs, upon receipt of the customer assignment data file (see Article 5.5), must begin the customer enrollment process. This process includes communicating the terms and conditions of the Program to the customer (Section 6.2) and the completion and submission and processing of the EDI 814 enrollment request transaction with the Company (Section 6.3).
- 6.2 Within three (3) business days upon a Participating EGS receiving a list of customer assignments, the Participating EGS must issue a letter to the customer detailing the terms and conditions of the Program. Additionally, the Participating EGS is obligated to comply with all rules and requirements set forth in 52 Pennsylvania Code Chapter

54. The terms and conditions of the Program that shall be communicated to the customer include:

- 6.2.1 The generation rate will be set at 7% below the PTC at the time the customer elects the Program. Additionally, the rate must remain fixed for a 12 billing cycle term.
  - 6.2.2 There will be no early termination fee or penalties.
  - 6.2.3 The Participating EGS shall send a switch request to return the customer to Default Service at the end of the Program unless the customer elects otherwise. The Participating EGS shall submit the switch request within three (3) business day of the Program ending.
- 6.3 Within 3 business days following the customer's rescission period for enrollment, the Participating EGS must enroll assigned customers through the EDI 814 enrollment process. The Company will respond to the Participating EGS with an EDI 814 enrollment response transaction indicating to the Participating EGS whether the enrollment has been accepted or rejected by the Company and if accepted, the date the Participating EGS should begin serving the customer.
- 6.3.1 A Participating EGS may not limit or reject any customer assigned to it through the Company's assignment process.
- 6.4 Following the submission of the EDI 814 enrollment, a customer will begin supply with the Participating EGS on the date communicated to the Participating EGS by the Company via the EDI 814 enrollment response transaction. This date is calculated according to the 3 Business Day Switching Rule with an exception noted in Section 6.4.2, below.
- 6.4.1 Customers may choose to remain in their current shopping contract or on Default Service without taking service from their assigned Participating EGS during the 3-day contract rescission period.
  - 6.4.2 New and Moving customers will begin supply with the Participating EGS on the date communicated to the Participating EGS by the Company via the EDI 814 enrollment response transactions. The enrollment response will not be generated until the new account is active. The Company provides a separate pending enrollment report for each Participating EGS that includes all accounts that have not been activated. A Participating EGS will begin supplying the customer as of the customer's connect date.

## **ARTICLE 7**

### **Program Costs and Invoicing**

#### **7.0 Program Costs and Invoicing**

- 7.1 Participating EGSs are required to pay a fee of \$33.00 per referred customer. Any remaining costs shall be recovered in the Company's rates. The allocation of these costs to the Customer Groups will be determined consistent with the cost allocations accepted by the Commission in PPL Electric's most recent base-rate proceeding.
- 7.2 Invoices will be issued within 10 business days following the conclusion of the month. Invoices will be issued via e-mail to the Participating EGS based upon the contact information provided.
- 7.3 Once issued an invoice, the Participating EGS is required to pay the invoice within 20 business days to PPL Electric. Payment must be made via Electronic Funds Transfer ("EFT"). The Company will issue banking information upon successful completion of Pre-Qualification requirements.

## **ARTICLE 8**

### **REPORTING REQUIREMENTS**

#### **8.0 Reporting Requirements**

- 8.1 Each Participating EGS is independently responsible to maintain data and information regarding its participation and assigned customer participation in the Program. It is also the Participating EGS's responsibility to provide support or evidence, if called upon, in the event of a formal or informal complaint filed at the PUC by or for a customer with regards to a customer's participation in the Program.
- 8.2 The Company will not be responsible for tracking or reporting on the Program for the benefit of the Participating EGS. Any actions taken by the Company to monitor the program will be completed on its own behalf.

## **ARTICLE 9**

### **RESERVED RIGHTS**

#### **9.0 Non-Binding Program**

- 9.1 Prior to the commencement of any SOP Period Program offering and with PA PUC approval, PPL Electric has the right to withdraw and terminate this Program without any liability or responsibility to any Participating EGS or any other party.

- 9.2 Subject to PA PUC approval, the Company reserves the right to accept or reject, in whole or in part, any and all Agreements, without any liability or responsibility to any Participating EGS or any other party, for reasonable cause including, but not limited to, adverse statutory changes or interpretations, issuance of new PA PUC orders and/or regulations, market conditions, etc., that preclude this Program from being implemented in substantially the manner described herein. Pursuant to these SOP Rules, PPL Electric shall reject any documents or agreements, including but not limited to the Standard Offer Program Binding Participation Form and Standard Offer Program Contact Form, submitted in response to this Program that are incomplete, or do not conform to the requirements of this Program, or are submitted beyond the deadline for submission. If the SOP Binding Participation Form or Contact form are incomplete or do not conform to Program requirements, the Participating EGS will be given written notice and will have 48 hours to cure non-conformance. In no event shall cure period extend or toll the 20 business day qualification submission requirements (see Article 4 for details).
- 9.3 All documents and agreements submitted by Participating EGSs in response to this Program will become the exclusive property of PPL Electric upon the receipt of such document(s).

## **Exhibit 1**

### **Standard Offer Program Binding Participation Form**

To be included in PPL Electric Utilities Corporation's ("PPL Electric") Standard Offer Program, \_\_\_\_\_ ("EGS Participant") agrees to be bound by the terms set forth below.

The EGS Participant hereby agrees that:

- (1) It acknowledges, understands and will abide by the rules set forth in the Standard Offer Program ("SOP") Process and Rules document;
- (2) It is obligated to pay a fee of \$33.00 per customer referred, as incurred by PPL Electric Utilities from the third-party provider, within 20 business days of being invoiced;
- (3) It will issue an EDI 814 enrollment upon notification from PPL Electric of customer being assigned to it. The EDI enrollment will be processed by the EGS Participant no later than 3 business days after the expiration of the rescission period for enrollment;
- (4) It must accept all customers who elect to participate and are assigned to it under the SOP;
- (5) It must accept customers enrolled in the SOP and implement a new SOP rate code. If the customer was previously enrolled with the EGS Participant under a different SOP Period rate code assignment, the EGS Participant must send an EDI 814 rate code change transaction no later than 3 business days after the expiration of the rescission period for enrollment or change;
- (6) Once notification is received that a SOP customer is enrolled, the EGS Participant will send notification to such customer and include the following terms as part of its disclaimer:
  - a. the terms and conditions of the Program;
  - b. the Standard Offer price, herein described below, for a term of twelve (12) billing cycles;
  - c. notification that there is no early termination penalty to any customer who leaves the Program at any time during the twelve (12) billing cycles;
  - d. any additional terms or conditions as set forth in Title 52, Chapter 54 of the Pennsylvania Code;
- (7) The SOP customer's price must reflect a 7% discount to PPL Electric's Price to Compare ("PTC") in effect at the time the customer elects service under the Program. This price will be maintained for all 12 billing cycles for which the customer participates in the Program;
- (8) In accordance with the provisions of 52 Pennsylvania Code Chapter 54, prior to the termination of the contract with a customer under this Program, the EGS Participant will notify the customer regarding the conclusion of the contract; and
- (9) The customer will be returned to Default Service at the end of the Program unless the customer elects otherwise.

The EGS Participant warrants and agrees that it hereby undertakes all responsibilities and service delineated herein as to SOP customers, and expressly absolves PPL Electric from any and all liability for the EGS Participant's failure to perform and/ or its default with respect to such responsibilities and service.

Participation in this Program shall constitute an Agreement by the EGS Participant to abide by the terms and conditions of the Program as set forth herein. In the event of a material default by an EGS Participant in any of its obligations under this Program, PPL Electric shall have the right to terminate the EGS Participant's participation in the Program upon providing 10 business day written notice of the default to the EGS Participant, directed to the contact listed in Exhibit 2. The EGS Participant shall be permitted to continue participating in the Program if it cures the default during the 10 business day notice period. PPL Electric also may seek whatever remedies, including but not limited to reasonable attorneys' fees, to which it may be entitled before the Commission, or a court of competent jurisdiction. The venue for any court action shall be in the Court of Common Pleas for Lehigh County or in the District Court for the Eastern District of Pennsylvania in Allentown.

The EGS Participant acknowledges that if PPL Electric is not able to confirm that the EGS Participant is licensed by the PA PUC, approved to participate in PPL Electric's service territory, is registered as an EGS at PJM, and has passed EDI "Rate Ready Billing" certification for the PPL Electric service territory at least 20 days prior to the start of the SOP Period, the EGS Participant will not be qualified to participate in the Program and will be excluded from the Program until such time as all deficiencies have been rectified. Furthermore, it is of the responsibility of the EGS Participant to cure such deficiencies.

The EGS Participant need only execute and submit this Form to PPL Electric once, unless the Standard Offer Program Binding Participation Form terms have been updated by PPL Electric. However, in order to be a participant during each SOP Period, the EGS Participant must utilize distinct Rate Codes for each SOP Period through the PPL Electric EDI system and notify the Company via e-mail of its intent to participate per Article 4 of the SOP Rules. Any EGS Participant failing to notify the Company of its intent to participate in the Program at least 20 days before the start of a SOP Period will be excluded from that SOP Period.

The submission of this Form to PPL Electric shall constitute the EGS Participant's acknowledgment and acceptance of all the terms, conditions and requirements of the SOP.

The undersigned represents and warrants that he/she has the authority to act on behalf of, and to bind, the EGS Participant to perform the terms and conditions and otherwise comply with all obligations stated herein.

Customer Group Participation:

Residential \_\_\_\_\_ Small C&I < 25kW \_\_\_\_\_ Both \_\_\_\_\_

Signature of Authorized Individual: \_\_\_\_\_

Name of Authorized Individual (*print*): \_\_\_\_\_

Title of Authorized Individual (*print*): \_\_\_\_\_

Date Signed: \_\_\_\_\_

As part of your submission to participate in the Standard Offer Program, please send one (1) original of this Form to:

PPL Electric Utilities Corporation  
Standard Offer Program  
827 Hausman Road, LEHSC  
Allentown, PA 18104  
Attn: Manager – Billing Operations

**EXHIBIT 2**  
**Standard Offer Program Contact Form**

Please provide contact information for purposes of the Standard Offer Program (*items with an \* are required*):

Company:\* \_\_\_\_\_

Contact Name:\* \_\_\_\_\_

Contact Title:\* \_\_\_\_\_

Address:

Street 1\* \_\_\_\_\_

Street 2 \_\_\_\_\_

City\* \_\_\_\_\_

State\* \_\_\_\_\_

Zip Code\* \_\_\_\_\_

Phone Number:\* \_\_\_\_\_

E-mail Address:\* \_\_\_\_\_

Fax (Optional): \_\_\_\_\_

**VERIFICATION**

I, MELINDA STUMPF, being the Director-Customer Programs at PPL Electric Utilities Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 03/11/2024

  
Melinda Stumpf (Mar 11, 2024 13:10 EDT)  
Melinda Stumpf

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Docket No. P-2024-\_\_\_\_\_**

**PPL Electric Utilities Corporation**

**Statement No. 4**

**Direct Testimony of Bethany L. Johnson**

Topic Addressed:   Transmission Service Charge  
                                  Generation Supply Charge

**Date: March 12, 2024**

1 **I. INTRODUCTION**

2 **Q. What is your name and business address?**

3 A. My name is Bethany Johnson. My business address is 827 Hausman Road, Allentown,  
4 Pennsylvania, 18104.

5  
6 **Q. By whom are you employed and in what capacity?**

7 A. I am the Senior Director of Regulatory for PPL Services Corporation. I am responsible for  
8 PPL Electric Utilities Corporation's ("PPL Electric") and Rhode Island Energy's  
9 development of load and revenue forecasting and analysis, procurement of wholesale  
10 generation supply, distribution rate design and administration, cost of service  
11 implementation, as well as transmission Federal Energy Regulatory Commission  
12 ("FERC") Formula Rates, development of rate case strategies and processes, and  
13 compliance with the regulatory requirements of the Pennsylvania Public Utility  
14 Commission ("Commission"), the FERC and other regulatory agencies, as necessary.  
15 Additionally, I oversee energy and utility policy and company strategy for PPL Electric.  
16 As part of this function, I am responsible for the preparation, review, and technical  
17 oversight and guidance of the development, content, and structure of cost allocation and  
18 revenue requirement studies. In addition, I am responsible for all aspects of Rhode Island  
19 Energy's and PPL Electric's rates and riders/factors and scheduling and settlement  
20 activities with PJM Interconnection, LLC ("PJM") and ISO New England, Inc. I also  
21 prepare and present expert testimony regarding these and other cost-of-service and  
22 ratemaking-related issues.

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**Q. Have you testified in other Commission proceedings or proceedings in any other jurisdiction?**

A. Yes. I testified and sponsored exhibits in several matters. A list of the matters in which I have previously testified is attached as PPL Electric Exhibit BLJ-1.

**Q. What is your educational background and experience?**

A. In 2000, I was employed by PPL Global Operations, Inc. (“PPL Global Operations”), where I supported the accounting and financial reporting activities for PPL Global Operations’ domestic operations. In 2001, as a result of corporate realignment, I joined PPL Generation, LLC. In this position, my responsibilities included cost control, budgeting, reporting, and management of the forecasting process for large construction projects, as well as the administration of construction and financing contracts. In 2004, I rejoined PPL Global Operations as a Senior Business Analyst with responsibility for maintaining, analyzing, consolidating, and presenting business plans and operational performance results for PPL Global Operations’ international affiliates. In 2007, I joined PPL Energy Services Group, LLC as a Business Analyst providing financial modeling and analytical support for evaluations of acquisition, development, and divestiture opportunities. In 2009, I joined PPL Electric as a Project Controls Specialist providing advanced cost analysis for distribution and transmission projects. Later in 2009, I became the Financial Business Planning Specialist in the Regulatory Compliance Department. In August 2012, I was named Manager - Regulatory Compliance for PPL Electric, and in October 2015, I was named Manager - Regulatory Operations, which included overseeing

1 scheduling and settlement functions with PJM. During my time in this role, I also took  
2 responsibility for load and revenue forecasting and reporting as well as energy and utility  
3 policy, company strategy. In September 2020, I was named Director - Regulatory Affairs.  
4 In December 2021, my role was transferred to PPL Services Corporation. In June 2023, I  
5 was promoted to Senior Director – Regulatory for PPL Services Corporation.

6 I earned a Bachelor of Arts degree in General Finance from King’s College in 1999,  
7 and I received a Master of Business Administration from Moravian College in 2003.

8  
9 **Q. What is the purpose of this direct testimony?**

10 A. I am submitting testimony in support of revisions to the Company’s Transmission Service  
11 Charge (“TSC”), Generation Supply Charge-1 (“GSC-1”), and Generation Supply Charge-  
12 2 (“GSC-2”) that are being presented as part of the Company Default Service Program VI  
13 (“DSP VI”).

14  
15 **Q. Are you sponsoring any exhibits with your direct testimony?**

16 A. Yes, I am responsible for PPL Electric Exhibit BJ-1, and Attachment K that is attached to  
17 the Company’s DSP VI Petition (“Petition”). PPL Electric Exhibit BJ-1 is a list of matters  
18 that I have testified in. Attachment K is a copy of the Company’s proposed TSC tariff  
19 pages, including highlighted proposed tariff changes, as well as a copy of the Company’s  
20 proposed GSC-1 and GSC-2 tariff pages, including highlighted proposed tariff changes.

1 **II. TSC**

2 **Q. Please describe the TSC.**

3 A. The TSC is a tariffed rate applicable to all customers who receive Basic Utility Supply  
4 Service (“BUSS”), otherwise known as Default Service, from PPL Electric. The TSC  
5 recovers the demand-related (kW) portion of the charges that PPL Electric incurs to provide  
6 service to customers receiving BUSS, as well as other non-kW-based charges incurred to  
7 provide transmission service. These TSC charges pass through FERC-approved  
8 transmission rates charged by PJM pursuant to its Open Access Transmission Tariff  
9 (“OATT”). The mechanism for calculating the TSC and the rates charged to each customer  
10 class are set forth in the TSC tariff.

11

12 **Q. How frequently is the TSC computed?**

13 A. Pursuant to the TSC tariff, the TSC is computed on an annual basis, currently to be effective  
14 June 1 of each year. In addition to projected costs for the computation year, the TSC rate  
15 includes a reconciliation of experienced over/under collections of TSC revenues and costs.  
16 The reconciliation period currently is for the twelve-month period ended March 31,  
17 immediately before the computation year. The TSC may be revised during the computation  
18 year if the Company determines that a material over/under collection will occur for a  
19 customer class.

20

1 **Q. Does the Company propose any changes to the computation of the TSC?**

2 A. Yes. The Company proposes to change the twelve-month computation period from a  
3 starting period of June 1 to a starting period of December 1. Consistent with this change,  
4 the Company also proposes to change the reconciliation period from the twelve-months  
5 ended March 31 to the twelve-months ended September 30 of each year.

6

7 **Q. What is the reason for the proposed change?**

8 A. PPL Electric's FERC-approved transmission formula rate, as recognized in the OATT, has  
9 changed and has been approved to be effective January 1 of each year based on FERC  
10 Docket ER22-2719-001. The new rate is posted as of October 31 of each year to be  
11 effective the following January 1.

12 Because the FERC transmission rates are now changed seven months into the TSC  
13 computation year, projections made for the TSC approximately eight months prior may be  
14 inaccurate, requiring an interim rate change. For example, an interim TSC rate was filed  
15 and effective on December 1, 2023, at Docket No M-2023-3043994. Revising the TSC  
16 tariff rate effective date to December 1 will allow PPL Electric to make more accurate  
17 projections of TSC costs for the computation year because the Company will know by  
18 October 31 what the new transmission rates will be effective January 1. This will also  
19 allow a more accurate Price to Compare ("PTC") for customers if they decide to shop with  
20 an alternative supplier and may reduce the need for interim price changes.

21

1 **Q. How will the Company manage the transition from a computation year beginning**  
2 **June 1 to a computation year beginning December 1?**

3 A. PPL Electric will set a new price to be effective for the 6-month period of June 1, 2025  
4 through November 30, 2026. The subsequent price period will be December 1, 2025  
5 through November 30, 2026, for a 12- month period. The Company will file a six-month  
6 reconciliation for costs incurred April 1, 2025 through September 30, 2025 to be recovered  
7 over the twelve-month rate period to transition to the December 1, 2025 – November 30,  
8 2026 rate period. Reconciliations will then move to twelve-month periods with the next  
9 reconciliation period covering October 1, 2025 through September 30, 2026.

10

11 **III. GSC**

12 **Q. Please describe the GSC-1 and GSC-2.**

13 A. The GSC is a tariffed rate applicable to all customers who receive Default Service from  
14 PPL Electric. The GSC recovers the generation portion of the charges that PPL Electric  
15 incurs to provide service to customers receiving BUSS. The mechanism for calculating  
16 the GSC and the rates charged to each customer class are set forth in the GSC tariff.

17

18 **Q. How will the costs to provide Default Service to the Residential and Small**  
19 **Commercial & Industrial (“C&I”) Customer Classes be recovered?**

20 A. The costs incurred by PPL Electric to provide Default Service to the Residential and Small  
21 C&I Customer Classes are recovered through the GSC-1. The GSC-1 will be separately

1 calculated for the Residential Customer Class and Small C&I Customer Class. This  
2 recovery method remains unchanged from DSP V.

3 The costs recovered in the GSC-1 will include, among other costs, those costs  
4 incurred under the various supplier contracts, AEC-only contract costs, and costs incurred  
5 to acquire the supply and administer the DSP VI Program. The costs incurred prior to June  
6 1, 2025, related to procurement of supply and other costs related to development and  
7 implementation of the DSP VI Program will be included in the GSC-1, as applicable, and  
8 will be amortized ratably over the 48-month term of the DSP VI Program. As explained  
9 by Mr. Castanaro (PPL Electric St. No. 1), the Company proposes that wholesale suppliers  
10 under the fixed-price, load-following, full-requirements contracts provide AECs under  
11 DSP VI. However, there are carryover contracts from DSP V that will still require the  
12 Company to procure some AECs by separate auction, in addition to AECs that will need  
13 to be procured annually for supply procured pursuant to the 10-year, Long Term Power  
14 Supply contracts. As explained by Mr. Catanzaro, there will be an annual AEC auction  
15 every July that runs in tandem with the wholesale auction to procure whatever additional  
16 AECs are needed for Alternative Energy Portfolio Standards Act (“AEPS”) compliance.

17 The GSC-1 will be adjusted every six months, effective June 1 and December 1,  
18 respectively, to reflect the cost of the Default Service supply contracts in place for the  
19 upcoming six-month period. The GSC-1 will be reconciled every twelve months for  
20 over/under recoveries by the respective customer class. Any remaining over/under  
21 collections from the DSP V Program and Time Of Use (“TOU”) over/under collections  
22 will be included in the reconciliation by respective customer class.

1           The proposed cost recovery and GSC-1 remain unchanged from the DSP V  
2 Program. Pro forma tariff pages for the GSC-1 rate are provided in Attachment I to the  
3 Petition.  
4

5 **Q. Did the Company make any commitments regarding reconciliation of the GSC-1 rate**  
6 **in the partial settlement of the DSP V case?**

7 A. Yes. As part of the partial settlement of DSP V, the Company agreed to adopt a twelve-  
8 month reconciliation of the GSC-1 for both Residential and Small C&I Customer Classes.  
9 In addition, PPL Electric agreed that in the event the GSC-1 E-factor exceeds 10 percent  
10 of the PTC for Small C&I GSC-1 customers, the Company would consult with the OSBA  
11 regarding the causes for this variance and steps being taken to reduce GSC-1 variances.  
12

13 **Q. Has the GSC-1 E-factor for Small C&I customers exceeded 10 percent of the PTC**  
14 **under DSP V to date?**

15 A. No, to date the GSC-1 E-factor has been below 10 percent for Small C&I customers.  
16

17 **Q. Please describe the rate schedules that make up the Large C&I Customer Class.**

18 A. The Large C&I Customer Class includes customers served under current PPL Electric Rate  
19 Schedules GS-3 (over 100 kW), LP-4 (over 100 kW), LP-5, LPEP, and standby service for  
20 qualifying facilities. This is the same customer classification currently in effect for DSP  
21 V.

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**Q. Please describe the proposed procurement for the Large C&I Customer Class.**

A. As explained in greater detail in the direct testimony of Mr. Castanaro (PPL Electric St. No. 1), for the Large C&I Customer Class, the Company proposes to continue to obtain Default Service energy supply on a real-time hourly basis through the PJM spot market, through load-following, full requirements contracts with suppliers.

**Q. Please explain how the costs to provide Default Service to the Large C&I Customer Class will be recovered.**

A. The costs incurred by PPL Electric to provide Default Service to the Large C&I Customer Class will be recovered through the GSC-2. The costs recovered in the GSC-2 will include PJM real-time spot market energy, PJM capacity charges, the suppliers' charge for all other services based upon winning bids in the annual solicitation, and PPL Electric's costs to acquire the supply and administer the DSP VI Program.

Customers in the Large C&I Customer Class will continue to pay the following three charges for Default Service under the GSC-2:

- An energy charge per kWh based on the real-time hourly spot-market price and the customer's actual hourly energy use;
- A capacity charge per kW based on the PJM Reliability Pricing Model ("RPM") price for capacity and the customer's peak load contribution; and

- 1 • An energy charge per kWh to recover all supplier charges and PPL Electric's cost  
2 of administration, both prospective costs and an amortization of previously incurred  
3 costs over the term of the DSP VI Program.

4 The GSC-2 will be revised annually, effective June 1 on thirty days advance notice,  
5 to reflect changes in costs. The GSC-2 will continue to be reconciled on an annual basis.  
6 Also, any remaining under/over collections from the DSP V Program will be included in  
7 this reconciliation.

8 The proposed cost recovery and GSC-2 remain largely unchanged from the DSP V  
9 Program. The difference in the process occurs with the elimination of the separate AEC  
10 auctions and the requirement that wholesale suppliers provide AECs. As a result, wholesale  
11 suppliers' bids in the Default Service auction will need to account for AEC costs. Pro forma  
12 tariff pages for the GSC-2 rate are provided in Attachment I to the Petition.

13  
14 **Q. Does this conclude your direct testimony?**

15 A. Yes. However, I reserve the right to supplement my testimony as additional issues arise.

# **Exhibit BLJ-1**

**Exhibit BJ-1**  
**Proceedings in Which Ms. Johnson**  
**Has Provided Expert Testimony**

As an employee of PPL Electric, PPL EU Services, or PPL Services, Ms. Johnson has offered expert testimony in the following electric utility proceedings before the PA PUC.

Docket No. R-2012-2290597	PPL Electric Utilities Corporation Supplement No. 118 to Tariff – Electric Pa. P.U.C. No. 201 (distribution rate case)
Docket No. M-2012-2312472	PPL Electric Utilities Corporation Final Generation Supply Charge-1 Reconciliation Report for the 12 Month Period May 1, 2011 through April 30, 2012.
Docket No. C-2013-2367475	Office of Small Business Advocate v. PPL Electric Utilities Corporation (GSC-1)
Docket No. P-2013-2325034	Petition of PPL Electric Utilities Corporation for Approval of a Distribution System Improvement Charge
Docket Nos. M-2010-2213754 and M-2011-2239806 (TSC Refund Plan)	PPL Electric Utilities Corporation Proposed Transmission Service Charge for the Twelve Months Ending November 30, 2010  PPL Electric Utilities Corporation Transmission Service Charge Effective June 1, 2011
Docket No. P-2014-2417907	Petition of PPL Electric Utilities Corporation for Approval of a Default Service Program and Procurement Plan for the Period June 1, 2015 through May 31, 2017
Docket Nos. C-2013-2398440 and C-2013-2398442 (ACR-1 & ACR-2 Complaints by PPLICA)	PP&L Industrial Consumer Alliance v. PPL Electric Utilities Corporation
Docket Nos. P-2014-2430781 and M-2009-2123945	Petition of PPL Electric Utilities Corporation for Approval to Modify its Smart Meter Technology Procurement and Installation Plan and to Extend its Grace Period
Docket No. C-2014-2418167	Loren J. Hulber v. PPL Electric Utilities Corporation
Docket Nos. R-2015-2469275 (distribution rate case) and P-2015-2474714	Pennsylvania Public Utility Commission v. PPL Electric Utilities Corporation  PPL Electric Utilities Corporation Petition for Waiver of the Distribution System Improvement Charge Cap of 5% of Billed Revenues
Docket No. M-2015-2515642	Petition of PPL Electric Utilities for Approval of its Act 129 Phase III Energy Efficiency and Conservation Plan
Docket No. F-2016-2569470	Stephen Kozeracki v. PPL Electric Utilities Corporation
Docket No. P-2019-3010128	Petition of PPL Electric Utilities Corporation for Approval of Tariff Modifications and Waivers of Regulations Necessary to Implement its Distributed Energy Resources Management Plan (Proprietary and Non-Proprietary versions)
Docket No. C-2023-3042130	Frey v. PPL Electric Utilities Corporation

## VERIFICATION

I, BETHANY L. JOHNSON, being the Sr. Director - Regulatory at PPL Services Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 03/11/2024

*Bethany Johnson*  
Bethany Johnson (Mar 11, 2024 09:40 EDT)

Bethany L. Johnson