

**PECO ENERGY COMPANY  
STATEMENT NO. 4**

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PETITION OF PECO ENERGY COMPANY  
FOR APPROVAL OF ITS  
DEFAULT SERVICE PROGRAM  
FOR THE PERIOD FROM  
JUNE 1, 2021 THROUGH MAY 31, 2025

DOCKET NO. P-2020-\_\_\_\_\_

\_\_\_\_\_  
DIRECT TESTIMONY  
\_\_\_\_\_

WITNESS: SCOTT G. FISHER

SUBJECT: DEFAULT SERVICE PROCUREMENT

DATED: MARCH 13, 2020

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1 College and a B.E. from the Thayer School of Engineering at Dartmouth College,  
2 with high honors. In addition, I received an M.S. in Engineering-Economic Systems  
3 from Stanford University and an M.B.A. from the Tuck School of Business at  
4 Dartmouth College, with high honors. I presently serve as a guest lecturer at the  
5 Tuck School of Business on energy industry matters.

6 **5. Q. Have you testified previously before this Commission?**

7 A. Yes, I testified in Docket No. P-2008-2062739, Petition of PECO Energy Company  
8 for Approval of its Default Service Program and Rate Mitigation Plan (“DSP I”),<sup>1</sup>  
9 Docket No. P-2012-2283641, Petition of PECO Energy Company for Approval of its  
10 Default Service Program (“DSP II”),<sup>2</sup> Docket No. P-2014-2409362, Petition of PECO  
11 Energy Company for Approval of its Default Service Program for the Period from  
12 June 1, 2015 through May 31, 2017 (“DSP III”),<sup>3</sup> and Docket No. P-2016-2534980,  
13 Petition of PECO Energy Company for Approval of its Default Service Program for  
14 the Period from June 1, 2017 through May 31, 2021 (“DSP IV”).<sup>4</sup> I also testified in  
15 Docket No. P-2012-2301664, Petition of Duquesne Light Company for Approval of a  
16 Default Service Program and Procurement Plan for the Period June 1, 2013 through

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<sup>1</sup> See *Petition of PECO Energy Company for Approval of Its Default Service Program and Rate Mitigation Plan*, Docket No. P-2008-2062739 (Order entered June 2, 2009) (“DSP I Order”).

<sup>2</sup> See *Petition of PECO Energy Company for Approval of Its Default Service Program*, Docket No. P-2012-2283641 (Order entered Oct. 12, 2012) (“DSP II Order”).

<sup>3</sup> See *Petition of PECO Energy Company for Approval of Its Default Serv. Program for the Period from June 1, 2015 through May 31, 2017*, Docket No. P-2014-2409362 (Order entered Dec. 4, 2014) (“DSP III Order”).

<sup>4</sup> See *Petition of PECO Energy Company for Approval of Its Default Serv. Program for the Period from June 1, 2017 through May 31, 2021*, Docket No. P-2016-2534980 (Order entered Dec. 8, 2016) (“DSP IV Order”).

1 May 31, 2015.<sup>5</sup>

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

3 A. The purpose of my direct testimony is to evaluate PECO’s proposed default service  
4 plan (the “Default Service Plan” or “Plan” or “DSP V”) to procure supply for default  
5 service customers for the period beginning June 1, 2021 and ending May 31, 2025.  
6 My testimony is divided into two parts. First, I briefly review PECO’s first four  
7 default service plans, DSP I, DSP II, DSP III, and DSP IV, and identify several  
8 lessons learned. This discussion includes an analysis of the “residual compensation”  
9 incorporated in the prices of the residential full requirements contracts procured by  
10 PECO in accordance with these plans. Second, I evaluate PECO’s DSP V with  
11 respect to Act 129’s (the “Act’s”) requirement that the plan include a “prudent mix”  
12 of contracts designed to ensure the least cost to customers over time.<sup>6</sup>

13 **7. Q. Please summarize your conclusions.**

14 A. First, with regard to the lessons learned from PECO’s earlier DSP plans (DSP I, DSP  
15 II, DSP III, DSP IV), I conclude the following:

- 16 • The participation by multiple suppliers in PECO’s open solicitations for  
17 fixed-price full requirements (“FPFR”) default service supply products,  
18 combined with my quantitative analysis of the results of these  
19 solicitations, indicate that the resulting contract prices obtained by PECO

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<sup>5</sup> See *Petition of Duquesne Light Co. for Approval of Default Serv. Plan For the Period June 1, 2013 Through May 31, 2015*, Docket No. P-2012-2301664 (Order entered Jan. 25, 2013).

<sup>6</sup> 66 Pa.C.S. § 2807(e)(3.4).

1 have been reasonable, considering the costs and risks that the suppliers  
2 under these contracts assume to the benefit of customers.

- 3 • The mix of one-year and two-year FPFR products in PECO’s residential  
4 default service supply portfolio, and the semi-annual overlapping of their  
5 delivery periods, provide price stability benefits for residential customers.
- 6 • The basic default service model used by PECO has supported the  
7 competitive retail electricity market. In fact, 102 alternative electric  
8 generation suppliers (“EGSs” or “competitive retail suppliers”) currently  
9 serve PECO customers, which is roughly triple the number since the DSP  
10 I period began.<sup>7</sup>

11 Second, with regard to PECO’s proposed DSP V, I conclude the following:

- 12 • DSP V incorporates a prudent mix of contracts designed to ensure least  
13 cost to customers over time, taking into account the benefits of price  
14 stability, and includes prudent steps necessary to obtain least cost  
15 generation supply contracts on a long-term, short-term and spot market  
16 basis, as required by Section 2807(e)(3.4) and Section 2807(e)(3.7) of the  
17 Act.<sup>8</sup>

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<sup>7</sup> Source: PECO. Data is for the month ending February 25, 2020.

<sup>8</sup> In PECO Energy Statement No. 1, PECO witness John J. McCawley provides the details regarding PECO’s proposal to solicit long-term contracts for a portion of the solar alternative energy credits (“AECs”) required for compliance with Pennsylvania’s Alternative Energy Portfolio Standards (“AEPS”) Act, and accordingly he addresses how this specific aspect of DSP V is consistent with the Act’s requirement that the plan include a

- 1           •       PECO’s Default Service Plan is designed to support the competitive retail  
2                   electricity market in PECO’s service area while providing price stability  
3                   benefits for small customers.

4           Each of these findings is discussed further below.

5           **II.       REVIEW OF EARLIER DSPS AND THE LESSONS LEARNED**

6   **8.   Q.   Please provide a brief overview of the mix of products procured under DSP I, DSP**  
7           **II, and DSP III.**

8           A.   Under PECO’s DSP I, a unique and tailored portfolio of supply products was  
9                   procured for each of four different customer classes at different points in time. The  
10                  portfolio consisted of a mix of 1-year and 2-year FPFR products and varying levels of  
11                  spot-priced purchases by customer class.<sup>9</sup> Twenty-five percent of the Residential  
12                  class portfolio was served through a “block-and-spot” approach in which PECO made  
13                  forward purchases of energy blocks (of 1-year, 2-year, 5-year, and seasonal delivery  
14                  periods that were targeted to supply 20% of Residential default service load<sup>10</sup>), and  
15                  the spot market transactions were made to cover the mismatches between the fixed  
16                  quantities of block energy supply purchased and the 25% portion of the actual hourly

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“prudent mix” of contracts designed to ensure the least cost to customers over time.

<sup>9</sup> Some of the initial delivery periods of the full requirements supply products procured in DSP I included an extra five months (from January 1, 2011 to May 31, 2011) to align the delivery periods of subsequent products with the commencement of the annual planning period of PJM Interconnection, L.L.C. (“PJM”), the regional transmission organization in which PECO participates.

<sup>10</sup> Unlike full requirements products, deliveries under block products do not scale with changes in default service load, so the percentages of default service load served by the block products often deviated from the targeted percentage.

1 load requirement.

2 Under DSP II, PECO began to phase out the block-and-spot aspect of the supply  
3 portfolio for the Residential class and replace these products with FPFRR products.  
4 For smaller customers, DSP II also included more frequent replacements of the  
5 supply products, as supply product delivery periods were timed to expire every six  
6 months rather than every year. Finally, DSP II involved generally shorter product  
7 delivery periods and shorter times between product procurement and the start of  
8 delivery.

9 PECO's DSP III continued the basic procurement strategy that was established in  
10 DSP II, with a few changes. For the Medium Commercial class, PECO transitioned  
11 the supply portfolio from six-month FPFRR products to hourly priced default service.  
12 The supply portfolio for the Residential class continued the procurement design  
13 established in DSP II consisting of 40% one-year FPFRR products and 60% two-year  
14 FPFRR products, with delivery periods that overlap on a semi-annual basis. During the  
15 DSP III period, approximately 96% of the supply portfolio transitioned to this product  
16 arrangement. By the end of the DSP III period, the remaining 4% of the overall  
17 default service supply portfolio for the Residential class consisted of a mix of 17-  
18 month FPFRR products (approximately 3% of Residential default service load) and  
19 spot purchases (approximately 1% of Residential default service load) directly from  
20 the energy markets operated by PJM.

21 **9. Q. Please provide a brief overview of the mix of products procured under DSP IV.**

22 A. PECO's DSP IV, the plan currently in effect, continues the basic procurement

1 strategy that was established in DSP III, which includes procurement of a prudent mix  
2 of products from competitive wholesale suppliers and has supported retail market  
3 competition.

4 • PECO consolidated the Medium Commercial class (peak demands 100  
5 kW to 500 kW) and the Large Commercial and Industrial class (peak  
6 demands greater than 500 kW) into a Consolidated Large Commercial and  
7 Industrial class consisting of customers with peak demands that are equal  
8 to or greater than 100 kW. These customers continue to receive default  
9 service based on spot market prices. In PECO's service area, the  
10 competitive retail market for the Consolidated Large Commercial and  
11 Industrial customers is very well developed, as 94% of the load has  
12 switched to service from competitive retail suppliers.<sup>11</sup> As such, this  
13 customer class does not rely on having price stability in its default service  
14 rates, so the continuance of default service based on spot market prices is  
15 reasonable for it.

16 • For the Small Commercial class, PECO has transitioned from the previous  
17 supply portfolio composed entirely of one-year FPFR products to a supply  
18 portfolio consisting of 50% one-year FPFR products and 50% two-year  
19 FPFR products. The inclusion of the two-year products in the supply  
20 portfolio was designed to better ensure price stability for those small non-

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<sup>11</sup> Source: PECO. Data is for the month ending February 25, 2020. The figure includes customers who will be switched to EGSs within 45 days. Percentage of load is based on kW.

1 residential customers who do not select service from a competitive retail  
2 supplier. PECO continues the practice of overlapping delivery periods on  
3 a semi-annual basis, and it also continues the practice of procuring each of  
4 the FPFR default service products approximately two months before  
5 delivery of the product begins. Specifically, the procurement approach  
6 has transitioned from the previous cycle in which 50% of the supply was  
7 replaced every six months to a cycle in which 37.5% of the supply is  
8 replaced every six months, thereby reducing the likelihood of significant  
9 rate changes due to adverse circumstances or market conditions at any  
10 given time.

- 11 • The supply portfolio for the Residential class continues the basic  
12 procurement design established in DSP III, in which 96% of the supply  
13 consists of a mix of 40% one-year FPFR products and 60% two-year  
14 FPFR products, with delivery periods that overlap on a semi-annual basis.  
15 The remaining 4% of the overall default service supply portfolio for the  
16 Residential class consists of two tranches (each supplying 1.6% of the  
17 Residential class default service load) of two-year FPFR products, and the  
18 remaining sliver of the supply need is satisfied through spot purchases.<sup>12</sup>  
19 Each of the FPFR default service supply products for the Residential class

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<sup>12</sup> Including these two tranches of two-year FPFR products, the total default service supply portfolio for the Residential class consists of 38 tranches of two-year FPFR products (supplying approximately 61% of the load), 24 tranches of one-year FPFR products (supplying approximately 38% of the load), and a small portion of spot purchases.

1 is procured approximately two months before delivery of the product  
2 begins.

3 The following chart provides a summary of the DSP IV portfolio for each customer  
4 class:

5 **DSP IV**

6

<b>Residential</b>	<b>Small Commercial</b>	<b>Consolidated Large Commercial and Industrial</b>
<ul style="list-style-type: none"><li>• 96% of the load is supplied by a mix of products in the following proportions:<ul style="list-style-type: none"><li>○ 40% 1-year FPFR products with delivery periods that overlap on a semi-annual basis</li><li>○ 60% 2-year FPFR products with delivery periods that overlap on a semi-annual basis</li></ul></li><li>• The other 4% of the load is supplied by two-year FPFR products (approximately 3% of the supply) and spot purchases (approximately 1% of the supply)</li><li>• All products are procured approximately two months before delivery of the product begins</li></ul>	<p>Transitioned to:</p> <ul style="list-style-type: none"><li>○ 50% 1-year FPFR products</li><li>○ 50% 2-year FPFR products</li><li>• Delivery periods overlap on a semi-annual basis</li><li>• All products are procured approximately two months before delivery of the product begins</li></ul>	<ul style="list-style-type: none"><li>• 100% spot-priced full requirements products with 1-year delivery periods</li><li>• All products are procured approximately two months before delivery of the product begins</li></ul>

7

8 **10. Q. Mr. Fisher, you have testified that the majority of default service supply for the**  
9 **Residential, Small Commercial, and Medium Commercial classes was procured**  
10 **in the form of FPFR products in DSP I, DSP II, DSP III, and DSP IV. Please**  
11 **describe the characteristics of an FPFR product.**

12 A. An FPFR default service supply product obligates the seller of the product to satisfy a  
13 specified percentage of all of the default service customers' supply requirements in

1 every hour of the delivery period, regardless of the default service customers’  
2 instantaneous changes in energy consumption, regardless of how frequently  
3 customers switch to or from default service, and regardless of how the seller’s cost to  
4 satisfy its supply obligation may change. The seller is paid a predetermined price per  
5 megawatt-hour for this service. The full requirements products that PECO has  
6 procured under DSP I, DSP II, DSP III, and DSP IV include the generation  
7 components required to supply PECO’s default service customers, including energy,  
8 capacity, and ancillary services, as well as AECs required for AEPS compliance. In  
9 PECO’s solicitations for FPFR products, qualified bidders compete with one another  
10 by submitting the prices at which they are willing to provide the full requirements  
11 default service supply, and the suppliers with the lowest prices are selected upon  
12 approval of the procurement by the Pennsylvania Public Utility Commission (the  
13 “Commission”).

14 **11. Q. Have PECO’s solicitations for FPFR supply products attracted many qualified**  
15 **suppliers?**

16 A. Yes. Between 9 and 13 suppliers participated in each of the FPFR product  
17 solicitations in DSP I, DSP II, DSP III, and DSP IV.<sup>13</sup> Furthermore, the Commission  
18 has approved the bid results for approximately 99% of the FPFR default service  
19 supply product tranches that have been solicited to date.<sup>14</sup> These facts indicate that

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<sup>13</sup> Source: PECO Energy Statement No. 1 (Direct Testimony of John J. McCawley). Participation in this context involves at least completing the steps required to be qualified to submit bids.

<sup>14</sup> Source: <http://www.pecoprocurement.com/index.cfm?s=background&p=previousResults>. To date, 737 FPFR default service supply product tranches have been solicited by PECO. (The number increases to 757 if the 12-month 2011 “opt-in” fixed-price products for the Large Commercial and Industrial class are included.) The Commission has approved the bid results for all but seven of these tranches. On a related note, insufficient

1 many suppliers understand the products being solicited and are willing to compete to  
2 provide those products. This is beneficial for customers and helps to ensure that the  
3 winning prices are the lowest possible for the products being solicited. When bidders  
4 are faced with a high likelihood that other bidders are also competing on the basis of  
5 price for the same product, they have the incentive to submit their lowest possible  
6 price in order to avoid being underpriced by another bidder.

7 **12. Q. Do the bidders in FPFR product solicitations require compensation in the prices**  
8 **that they offer to help them cover the associated costs and risks of their**  
9 **obligation, to the benefit of customers?**

10 A. Yes. As in any market, participants require compensation for the costs and risks that  
11 they bear by providing a product.

12 **13. Q. Have you performed a quantitative analysis of the results of PECO's DSP I, DSP**  
13 **II, DSP III, and DSP IV solicitations for FPFR default service supply products,**  
14 **in order to better understand the compensation that is required by suppliers?**

15 A. Yes. I have performed an analysis of the residential supply product pricing.

16 **14. Q. What was the basic approach that you adopted in your analysis?**

17 A. For each of the FPFR product solicitations that PECO completed, I calculated the  
18 values of the individual cost components that can be quantified in a fairly simple way,

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bids were received for some of the spot-priced full requirements products solicited in 2010 for the Large Commercial and Industrial class. (See Fall 2010 Solicitation Approval Secretarial Letter (9/22/2010)). Spot-priced full requirements products are quite different from FPFR products, as spot-priced full requirements products do not offer the opportunity to potential suppliers to manage all of the costs and risks of full requirements supply at a fixed price on behalf of customers.

1 I and deducted them from the winning bid prices. Then, by examining whether the  
2 difference (i.e., the “residual compensation” required by suppliers to cover the other  
3 costs and risks that I did not individually quantify) represents a relatively small or  
4 large portion of the winning bid prices, I determine whether this “residual  
5 compensation” is reasonable, considering the costs and risks assumed by FPFR  
6 product suppliers to the benefit of customers.

7 **15. Q. Please identify the cost components of full requirements service that you**  
8 **individually quantified.**

9 A. For each solicitation, I used market price information and load data available at the  
10 time of the solicitation to quantify cost components related to energy (including the  
11 effect of load shape), capacity, ancillary services, and various credits.<sup>15</sup>

12 **16. Q. How did you quantify each of these cost components?**

13 A. For energy, I relied on forward block energy prices as reported by the New York  
14 Mercantile Exchange (“NYMEX”).<sup>16</sup> I then added a load shaping adjustment to  
15 account for the fact that market prices are generally higher during hours in which

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<sup>15</sup> For all solicitations except the March 2015 solicitation, I only used market price information and load data available at the time of the solicitation to quantify costs. At the time of the March 2015 solicitation, PJM had filed its Capacity Performance Proposal with the Federal Energy Regulatory Commission, and it was widely recognized that approval of this proposal would increase the costs of capacity for June 2016 and beyond. As such, for the March 2015 solicitation, the price used for capacity for deliveries starting in June 2016 and the corresponding Zonal UCAP Obligation are based on the actual results of the Capacity Performance Transition Incremental Auction, which incorporate the Capacity Performance Resources in PJM’s Capacity Performance Proposal.

<sup>16</sup> For any solicitation in which sufficient PECO Zone forward prices were not available, NYMEX forward block energy prices for PJM Western Hub were used and a basis adjustment was applied. The basis adjustment was calculated based on historical market price data available as of the time of the respective solicitation. NYMEX prices were provided by ABB Velocity Suite.

1 customer loads are higher.<sup>17</sup> The load shaping was performed using actual PECO  
2 hourly loads and prices.

3 For capacity, I applied PJM-published capacity prices to megawatt quantities of  
4 required capacity, and I divided the products by the commensurate megawatt-hour  
5 loads in order to express capacity costs in terms of dollars per megawatt-hour. The  
6 capacity quantities were calculated based on the reported peak load contribution  
7 values for the appropriate classes of customers, and the corresponding megawatt-hour  
8 load values were calculated from publicly available load values as of the times of the  
9 solicitations.

10 The other cost components that I individually quantified include ancillary services  
11 costs,<sup>18</sup> AECs,<sup>19</sup> Auction Revenue Rights (“ARR”) credits,<sup>20</sup> and marginal loss  
12 credits.<sup>21</sup> These values tend to be much smaller than the cost of energy and capacity  
13 and, therefore, they have a much smaller effect on the results of my analysis.<sup>22</sup>

14 For each solicitation, I quantified these cost components and then deducted the

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<sup>17</sup> The calculation of this load shaping adjustment involved applying actual historical percentage differences between load-weighted hourly energy prices and straight-average hourly energy prices.

<sup>18</sup> The ancillary services costs that I used were based on PECO’s historical ancillary services costs.

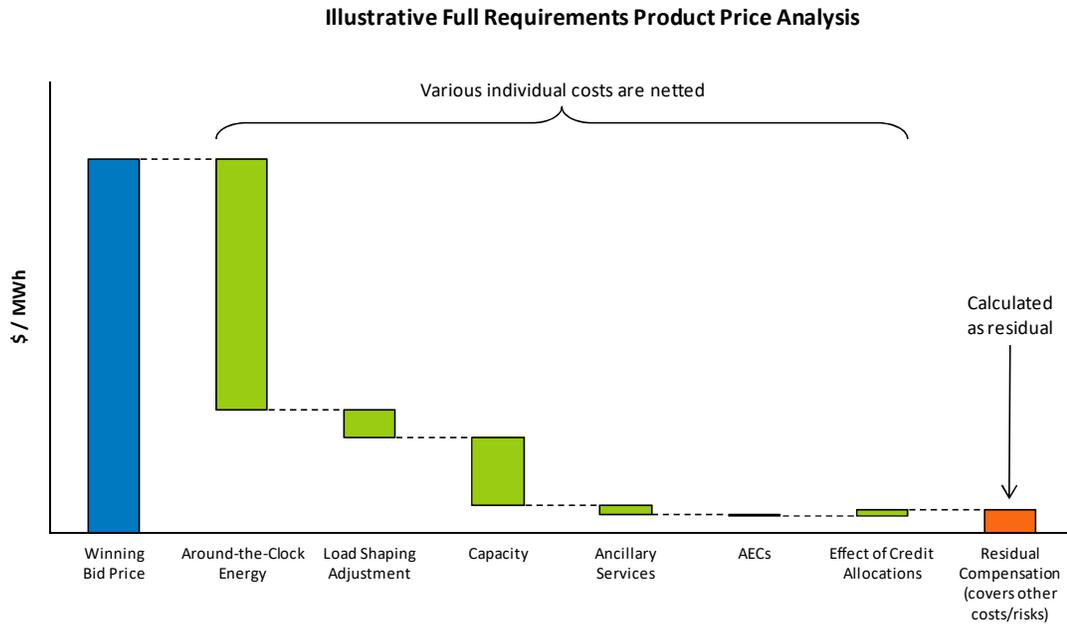
<sup>19</sup> The costs of AECs were calculated using AEC prices as of the time of the solicitation and the volume requirements of the winning suppliers.

<sup>20</sup> ARR credits were calculated by dividing zonal ARR credit allocations published by PJM by zonal loads calculated from PJM zonal load forecasts.

<sup>21</sup> Marginal loss credits were calculated using actual credit data provided by PJM.

<sup>22</sup> The values of both the ARR credits and the marginal loss credits were netted from the values of the other cost components that I calculated (i.e., these credit values effectively act as cost components with negative values), because a positive value for these credits equates to a positive dollar value allocated to the winning bidders in the solicitations.

1 resulting values from the winning bid price to determine how much was left over –  
2 the “residual compensation” for all other cost and risk items that were not  
3 individually quantified. The following illustrative chart graphically portrays this  
4 approach:



5

6 **17. Q. Do the residual compensation values that you calculated represent the expected**  
7 **“profit margins” or “premiums” for the winning bidders?**

8 A. No, these residual compensation values do not represent the expected profit margins  
9 for winning bidders. While it is reasonable for winning bidders to expect some level  
10 of profit in order to assume the full requirements obligations, there clearly are costs  
11 and risks that were not quantified and deducted from the winning bid prices; suppliers  
12 require the residual compensation to cover these costs and risks. Therefore, the  
13 residual compensation that I calculated simply represents what is left over after  
14 deducting the values of cost components that I individually quantified. It does not

1 represent the expected supplier profit or premium.

2 **18. Q. What are some of the other costs and risks that this “residual compensation” is**  
3 **intended to cover?**

4 A. The residual compensation must cover a wide range of other costs and risks,  
5 including:

6 • Customer migration – the financial costs and risks associated with the  
7 uncertainty regarding customer switching and its effect on the default  
8 service volumes to be supplied.

9 • Usage and price uncertainty – various costs and risks due to unexpected  
10 events that affect usage and price levels.<sup>23</sup>

11 • Unexpected congestion – various costs and risks associated with the  
12 possibility that differences in prices between a given trading hub and the  
13 delivery location will be higher than expected values.

14 • Adverse selection – the costs and risks associated with the likelihood that  
15 high cost-to-serve customers (e.g., with less attractive load shapes) will  
16 disproportionately remain on default service due to competitive retail  
17 suppliers’ lack of interest in marketing to such customers.

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<sup>23</sup> These include extreme weather patterns, changes in customer usage patterns, plant outages or transmission line outages (which also affect congestion costs), fuel price shocks, and unexpected economic growth levels. Furthermore, the general positive correlation between loads and prices (e.g., a heat wave drives up both prices and loads) compounds the potential costs associated with this uncertainty.

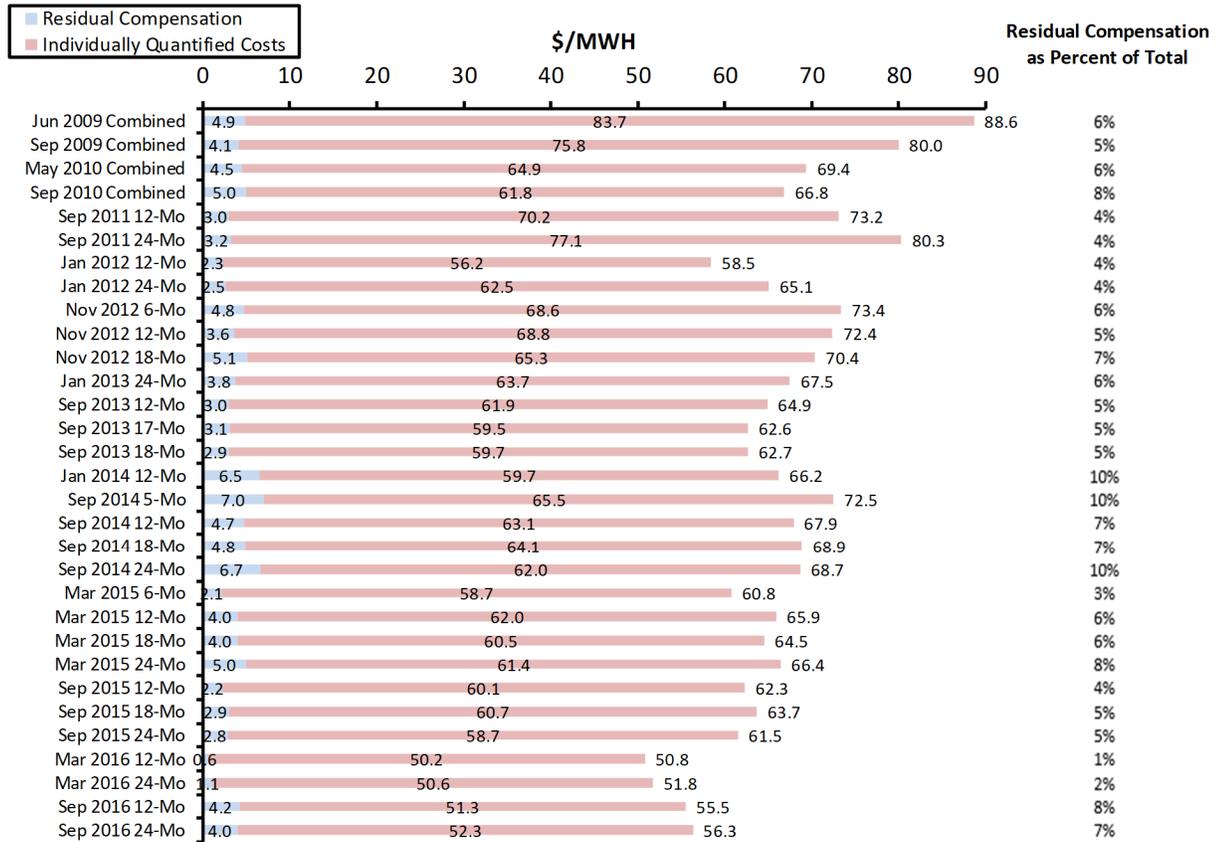
- 1           •     Adverse developments in energy markets during the time a bid is held  
2                     open – even for a few days, while the bids are evaluated and considered  
3                     for approval by the applicable regulatory body.
  
- 4           •     Potential changes in laws and regulations – such changes could impact  
5                     supplier costs during the contract period.
  
- 6           •     Administrative and legal costs
  
- 7           •     Credit-related costs (e.g., costs associated with posting collateral).

8           Again, my analysis does not include a quantification and deduction of these costs and  
9           risks from the winning bid prices. Therefore, winning bidders in the FPFR  
10           solicitations would need to cover these costs and risks in the residual compensation  
11           values that I calculated.

12 **19. Q. What residual compensation values did you calculate when you deducted the**  
13 **values of the individually quantified cost components from the winning bid**  
14 **prices?**

15       A. As the following exhibit shows, the residual compensation values for solicitations  
16       during DSP I, DSP II, and DSP III generally range between about \$2 per megawatt-  
17       hour and about \$5 per megawatt-hour (about 4% to 8% of the winning supply bid  
18       price).

## Breakdowns of Winning Bid Prices



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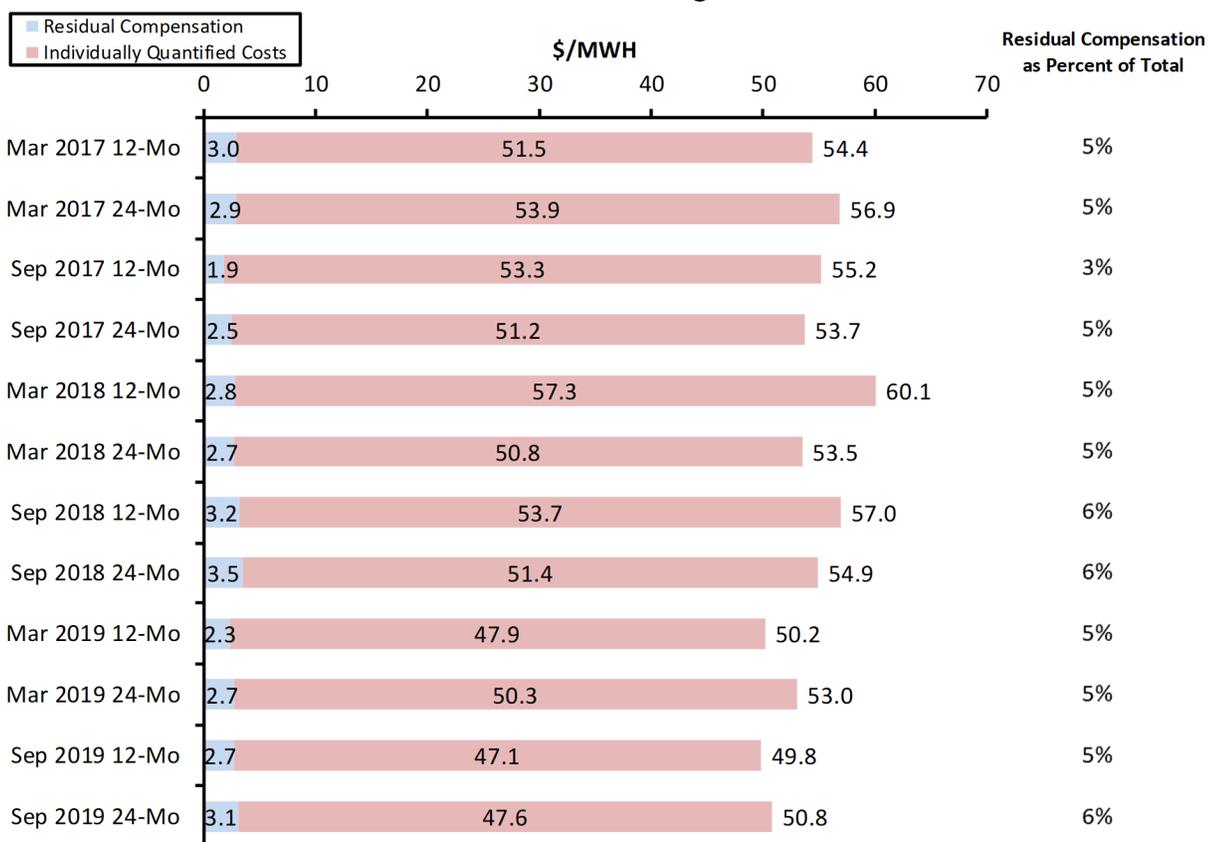
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Furthermore, as the following exhibit shows, the residual compensation values in PECO’s DSP IV solicitations have been between about \$2.50 per megawatt-hour and about \$3.50 per megawatt-hour (about 5% to 6% of the winning supply bid price).

### Breakdowns of Winning Bid Prices



1

2 **20. Q. Do you believe that the residual compensation values that you calculated are**  
 3 **reasonable, considering the costs and risks assumed by the winning bidders in**  
 4 **these solicitations to the benefit of customers?**

5 A. Yes. As I explained earlier, the participation by multiple suppliers in these open  
 6 solicitations helped to ensure that the winning prices were the lowest possible for the  
 7 products being solicited. Furthermore, these residual compensation values represent  
 8 only a small portion of the winning bid prices, especially considering the other costs  
 9 and risks that I described above, which FPCR suppliers intend to cover through the  
 10 residual compensation to the benefit of customers.

1 21. Q. Do the mix of one-year and two-year FPCR products in PECO's residential  
2 default service supply portfolio, and the semi-annual overlapping of their  
3 delivery periods, provide price stability benefits for residential customers?

4 A. Yes, having a majority of two-year FPCR products supplemented almost entirely by  
5 one-year FPCR products, all with semiannually overlapping delivery periods,  
6 provides price stability benefits for residential customers. PECO's portfolio of  
7 overlapping one-year and two-year products limits the percentage of supply that must  
8 be solicited or replaced at any given time or in any given short period, thereby  
9 reducing the likelihood of significant rate changes due to adverse circumstances or  
10 market conditions at any given time. For example, the January 2014 solicitation was  
11 held at a time in which unprecedented short-term factors caused potential default  
12 service bidders to divert their attention and resources to urgent matters other than  
13 PECO's solicitation.<sup>24</sup> This resulted in higher residual compensation values and some  
14 unsubscribed tranches. However, PECO's residential product mix and overlapping

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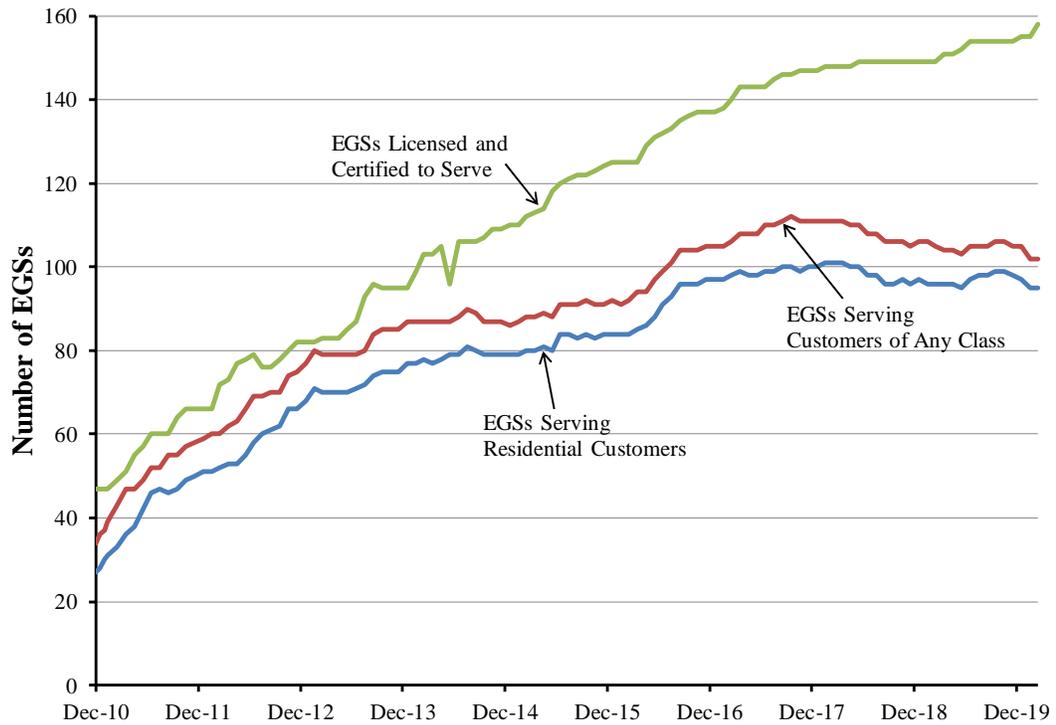
<sup>24</sup> During the weeks leading up to PECO's January 2014 solicitation, the regional energy market was in the throes of a prolonged, record-breaking, cold spell. All conventional forms of generation were challenged. As a result, hourly wholesale energy market prices were very volatile during January 2014. It is likely that potential default service bidders needed to divert resources to urgent portfolio management issues precipitated by the extreme market conditions at the time of PECO's January 2014 default service supply solicitation, resulting in low bidder participation. In addition, in light of the urgencies caused by the weather-related turbulence in the markets, both PJM and the neighboring New York Independent System Operator, Inc. ("NYISO"), submitted filings shortly before bids in PECO's default service supply solicitation were due, intervenors were required to file their comments on these filings within one week after the filings were made, and numerous parties dedicated resources to developing and submitting comments in these proceedings in the short periods allotted. Furthermore, bids were due in multiple other default service supply solicitations on the same day or within one day of PECO's January 2014 solicitation's bid due date. Given the issues related to the market-related events that I have described, potential bidders may have had abnormally limited resources available to fully compete in multiple default service supply solicitations at that time, and some may have chosen to focus on solicitations other than PECO's. (PECO Energy Statement No. 3 (Direct Testimony of Scott G. Fisher) in Docket No. P-2014-2409362. *Petition of PECO Energy Co. for Approval of Its Default Serv. Program for the Period from June 1, 2015 through May 31, 2017*, pp. 18-21.)

1 delivery periods restricted the amount of supply that needed to be solicited in that  
2 solicitation to only 27.2% of the overall residential default service supply  
3 requirement, thereby limiting the effect on customer rates of the adverse conditions.

4 **22. Q. Has the basic default service model used by PECO supported the competitive**  
5 **retail electricity market?**

6 A. Yes. In fact, since the DSP I period began, competitive retail market activity in  
7 PECO's service area has grown considerably. As the following chart shows, there  
8 has been substantial growth in the number of EGSs competing in PECO's service  
9 area since the DSP I period began.<sup>25</sup>

**EGS Participation in the PECO Zone**



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<sup>25</sup> Data provided by PECO.

1 The number of EGSs licensed and certified to serve customers in PECO’s service  
2 area has increased substantially since the start of DSP I, with 158 EGSs currently  
3 licensed and certified to serve customers.<sup>26</sup> Similarly, the number of EGSs serving  
4 PECO customers has roughly tripled since the DSP I period began, as has the number  
5 of EGSs serving PECO residential customers. Currently, 102 EGSs serve PECO  
6 customers, and 95 of these EGSs currently serve PECO residential customers.<sup>27</sup>  
7 Furthermore, 60% of PECO’s total customer load is currently being served by an  
8 EGS, with switching percentages equal to 30% for the Residential class, 56% for the  
9 Small Commercial class, and 94% for the Consolidated Large Commercial and  
10 Industrial class.<sup>28</sup> In contrast, as of October 1, 2010, only a few months before supply  
11 deliveries under DSP I began, only 1.7% of PECO’s total customer load was being  
12 served by an EGS.<sup>29</sup>

13 Clearly, PECO’s transition from long-term, capped default service rates to default  
14 service rates based on competitive market pricing for PECO’s prudent mix of default  
15 service supply products has supported a competitive retail market in PECO’s service  
16 area.<sup>30</sup>

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<sup>26</sup> Source: PECO. Data is for the month ending February 25, 2020.

<sup>27</sup> Source: PECO. Data is for the month ending February 25, 2020.

<sup>28</sup> Source: PECO. Data is for the month ending February 25, 2020. The figure includes customers who will be switched to EGSs within 45 days. Percentages of load are based on kW.

<sup>29</sup> Figure is “Percentage of Customers Load (MW) Served By An Alternative Supplier As Of 10/1/2010” as found in “Pennsylvania Electric Shopping Statistics – October 1, 2010” published by the PA Office of Consumer Advocate.

<sup>30</sup> The successful phase-out of the block-and-spot aspect of the supply portfolio and the greater reliance on FPFR products also has supported retail market development. Specifically, this has decreased the likelihood of material reconciliations between supply costs and retail revenues that can distort default service rates and

**III. EVALUATION OF PECO'S PROPOSED DSP V**

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**23. Q. Please summarize PECO's proposed plan for DSP V.**

A. PECO's proposed DSP V will continue the basic procurement strategy that was established in DSP IV, which includes procurement of a prudent mix of products from competitive wholesale suppliers and has supported retail market competition. The following chart provides a summary of the DSP V portfolio for each customer class:

**DSP V**

<b>Residential</b>	<b>Small Commercial</b>	<b>Consolidated Large Commercial and Industrial</b>
<ul style="list-style-type: none"> <li>• 96% of the load is supplied by a mix of products in the following proportions:                             <ul style="list-style-type: none"> <li>○ 40% 1-year FPFR products with delivery periods that overlap on a semi-annual basis</li> <li>○ 60% 2-year FPFR products with delivery periods that overlap on a semi-annual basis</li> </ul> </li> <li>• The other 4% of the load is supplied by two tranches of 2-year FPFR products (approximately 3% of the supply) and spot purchases (approximately 1% of the supply)</li> <li>• All products are procured approximately two months before delivery of the product begins</li> </ul>	<p>Supplied by a mix of:</p> <ul style="list-style-type: none"> <li>○ 50% 1-year FPFR products</li> <li>○ 50% 2-year FPFR products</li> </ul> <ul style="list-style-type: none"> <li>• Delivery periods overlap on a semi-annual basis</li> <li>• All products are procured approximately two months before delivery of the product begins</li> </ul>	<ul style="list-style-type: none"> <li>• 100% spot-priced FR products with 1-year delivery periods</li> <li>• All products are procured approximately two months before delivery of the product begins</li> </ul>

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reduce the transparency of future default service rates, which is important for customers to make informed supply decisions.

1 **24. Q. Mr. Fisher, the Act requires a default service plan to produce a prudent mix of**  
2 **contracts, and include prudent steps necessary to obtain least cost generation**  
3 **supply contracts on a long-term, short-term and spot market basis.<sup>31</sup> What**  
4 **guidance has the Commission provided in interpreting that standard?**

5 A. On October 4, 2011, the Commission entered its Second Default Service Rulemaking  
6 Order, in which it provided guidance regarding interpretation of the terms “least cost”  
7 and “prudent mix” as follows:

8 [T]he [“least cost”] standard must give the DSP sufficient latitude to select  
9 contracts that constitute a “prudent mix” which includes a sufficient  
10 variety of products that adequately take into consideration price volatility,  
11 changes in generation supply, customer usage characteristics and the need  
12 to assure safe and reliable service.<sup>32</sup>

13 In implementing default service standards, the Commission must be  
14 concerned about rate stability as well as other considerations such as  
15 ensuring a “prudent mix” of supply and ensuring safe and reliable service.  
16 In our view, a default service plan that meets the “least cost over time”  
17 standard should not have, as its singular focus, the achievement of the  
18 absolute lowest cost over the default service plan time frame but rather a  
19 cost for power that is both relatively stable and also economical relative to  
20 other options.<sup>33</sup>

21 Price stability benefits are very important to some customer groups, so an  
22 interpretation of “least cost” that mandates subjecting all default service  
23 customers to significant price volatility through general reliance on short  
24 term pricing is inconsistent with Act 129’s objectives.<sup>34</sup>

25 We agree with the majority of parties that the “prudent mix” of contracts  
26 be interpreted in a flexible fashion which allows the DSPs to design their

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<sup>31</sup> 66 Pa.C.S. § 2807(e)(3.4), and 66 Pa.C.S. § 2807(e)(3.7).

<sup>32</sup> *Default Serv. and Retail Elec. Mkts.*, Docket No. L-2009-2095604 (Order entered Oct. 4, 2011) (“*Second Default Service Rulemaking Order*”), p. 38.

<sup>33</sup> *Id.*, p. 40.

<sup>34</sup> *Id.*, p. 41.

1 own combination of products that meets the various obligations to achieve  
2 “least cost to customers over time,” ensure price stability, and maintain  
3 adequate and reliable service.<sup>35</sup>

4 We do reject the positions of those parties that “prudent mix” be defined  
5 to always require a specific mix or percentage of types of contract  
6 components in each default service plan or a minimum of two types of  
7 products.<sup>36</sup>

8 **25. Q. Do you believe that PECO’s proposed DSP V incorporates a prudent mix of**  
9 **contracts, and includes prudent steps necessary to obtain least cost generation**  
10 **supply contracts on a long-term, short-term and spot market basis, as required**  
11 **by Section 2807(e)(3.4) and Section 2807(e)(3.7) of the Act?**

12 A. Yes, I do. There are several reasons for this conclusion:

13 1. The procurement process is designed to ensure the least cost to customers by  
14 requiring qualified bidders in the supply product solicitations to compete and  
15 be selected based on the lowest price. Furthermore, when FPFR products are  
16 solicited, default service customers are provided the benefits of competition  
17 on all aspects of the full requirements supply obligation, including the  
18 portfolio management function.<sup>37</sup> It is reasonable to assume that bidders in  
19 the FPFR product solicitations will consider the costs and risks associated  
20 with all forms of supply available to them to satisfy their fixed-price full

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<sup>35</sup> *Id.*, p. 60.

<sup>36</sup> *Id.*

<sup>37</sup> FPFR product suppliers have the responsibility for continuously satisfying the uncertain and constantly changing supply requirements at the agreed-upon price, and therefore must manage the associated costs and risks through their supply portfolio decisions.

1 requirements obligation, and will reflect in their bid prices the benefits of any  
2 opportunity that they believe is the least cost supply opportunity.

- 3 2. PECO's Plan predominantly relies on FPFR default service supply products,  
4 which are well-tested in the marketplace. These products have been  
5 successfully procured by PECO in DSP I, DSP II, DSP III, and DSP IV, and  
6 are frequently procured by utilities in Pennsylvania and in other  
7 jurisdictions.<sup>38</sup>
- 8 3. The types of products relied upon under the Plan have been shown to be  
9 reasonably priced. Specifically, the participation in the open solicitations for  
10 FPFR products, combined with my quantitative analysis of the prices from  
11 PECO's FPFR residential default service supply solicitations under DSP I,  
12 DSP II, DSP III, and DSP IV, indicate that the prices of such products are  
13 reasonable, considering the costs and risks assumed by the winning bidders in  
14 these solicitations to the benefit of customers.
- 15 4. The Commission has recognized the benefits of reliance on full requirements  
16 products in a default service portfolio, as it stated in its Second Default  
17 Service Rulemaking Order:

18 The [full requirements] process insulates default supply customers  
19 from the volatility associated with wholesale market conditions

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<sup>38</sup> Examples of specific jurisdictions in which full requirements supply products are procured include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, Ohio, Pennsylvania, and Washington D.C.

1 with the supplier bearing the risks of factors such as customer  
2 migration, weather, load variation and economic activity.<sup>39</sup>

3 We do express a preference for continued reliance by DSPs on the  
4 [full requirements] approach to the extent this method best suits the  
5 DSP's particular procurement needs.<sup>40</sup>

6 The seller of an FPFR product is responsible for assuming, managing, and  
7 covering the financial costs and risks associated with electricity supply, while  
8 customers are protected against adverse market and/or generation cost  
9 outcomes. Sellers of FPFR products must satisfy their obligation, regardless  
10 of how much market prices or generation costs may increase during the  
11 delivery period and regardless of the default service load level. Yet if market  
12 prices decrease after these types of supply contracts are signed, customers  
13 may elect service from a lower cost competitive retail supplier.

14 5. PECO's Plan continues the use of a standard supply contract, which lets  
15 bidders know the terms and requirements of the default service supply  
16 obligation well in advance of the bid due date, and therefore allows qualified  
17 bidders to submit firm bid prices knowing that these contract terms and  
18 conditions will not change. The use of a standard contract also assures  
19 qualified bidders that the selection of the winning bidders will be an objective  
20 process. Consequently, the use of a standard contract encourages participation  
21 in the solicitations from a large number of potential suppliers.

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<sup>39</sup> *Second Default Service Rulemaking Order*, p. 54.

<sup>40</sup> *Id.*, p. 56.

1           6. PECO’s Plan is also prudent because it includes tailored supply portfolios for  
2           different customer classes that take into account the benefits of price stability,  
3           the different shopping propensity of each customer class, and the desire to  
4           support the competitive retail market in PECO’s service area.

5 **26. Q. Has the Commission supported the use of a tailored supply portfolio for each**  
6 **customer class?**

7 A. Yes. Specifically, in its Second Default Service Rulemaking Order, in its discussion  
8 of the “prudent mix” requirement under Act 129, the Commission stated:

9           The Commission notes there was substantial unanimity on this point and  
10          agrees with the parties that the “prudent mix” standard should be  
11          interpreted to allow for a class-specific product mix that best matches the  
12          needs of each DSP customer class.<sup>41</sup>

13 **27. Q. Does PECO’s proposed DSP V include a reasonable degree of flexibility to**  
14 **accommodate the possibility of future changes in the default service supply**  
15 **approach?**

16 A. Yes. PECO’s proposed DSP V incorporates this flexibility in several ways. First, the  
17 default service supply product portfolio for the Consolidated Large Commercial and  
18 Industrial class does not include any supply products with delivery periods that  
19 extend beyond May 31, 2025, the end of the DSP V period. As a result, the  
20 Commission can easily adopt a similar plan or a very different plan for the period  
21 starting June 1, 2025, without the need to face situations involving pre-existing

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<sup>41</sup> *Second Default Service Rulemaking Order*, p. 69.

1 default service supply products for this customer class with deliveries that extend  
2 beyond the DSP V period.

3 Second, the first solicitation for Residential and Small Commercial supply products  
4 with delivery periods that extend beyond May 31, 2025 (the end of the DSP V period)  
5 does not occur until September 2023. As a result, there is a significant amount of  
6 time before commitments to new supply products extending beyond the DSP V  
7 period are made, should changes need to be made due to legislative or regulatory  
8 mandates. In the meantime, these solicitations remain scheduled because they allow  
9 for the option for a fairly seamless continuation of the laddered procurement cycle as  
10 PECO transitions from DSP V to DSP VI,<sup>42</sup> and they avoid subjecting Residential and  
11 Small Commercial customers to a “hard stop” with regard to their supply products at  
12 the end of the DSP V period. This is consistent with the approach approved by the  
13 Commission in DSP II, DSP III and DSP IV, and it helps to avoid the need to replace  
14 a large portion of default service supply in a short period at the end of the DSP V  
15 period. Customers could be exposed to magnified risks and rate instability if a  
16 default service plan were to require that a large portion of the customers’ default  
17 service supply must be procured in a short period.

18 Finally, PECO’s proposed DSP V provides flexibility because it relies on full  
19 requirements supply products. Full requirements products provide just enough supply

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<sup>42</sup> In its Second Default Service Rulemaking Order, the Commission recognized the importance of “laddering” contracts in procuring default service supply. Specifically, the Commission stated, “We agree with those parties that utilizing such practices as laddering contracts, with varying procurement periods and contract durations over multiple procurements provide definite benefits in terms of minimizing the impacts of market volatility and decreasing customer risk.” (*Second Default Service Rulemaking Order*, pp. 62-63.)

1 to satisfy the actual load obligations, thereby mitigating the risk of being saddled with  
2 commitments to purchase supply that is not needed. This is especially valuable given  
3 ongoing uncertainty about future customer migration.

4 **28. Q. Is PECO's Plan designed to support the competitive retail electricity market?**

5 A. Yes. As in previous PECO default service plans, EGSs will compete against market-  
6 based default service rates, as the default service rates will be based on the prices for  
7 supply products obtained through competitive solicitations in which multiple bidders  
8 compete to sell the products solely on the basis of price. In addition, the use of FPFR  
9 supply products for the Residential and Small Commercial classes will allow those  
10 classes' default service rates to closely match the market-based supply costs, reducing  
11 the likelihood of significant over- and under-collections from retail customers and  
12 enhancing rate transparency for retail supply decisions.<sup>43</sup> Furthermore, the FPFR  
13 supply products and their procurement timing under PECO's proposed DSP V will  
14 result in a relatively stable and transparent residential price-to-compare benchmark  
15 against which residential customers can compare competing retail offers. Finally, as  
16 discussed by PECO witnesses John J. McCawley (PECO Energy Statement No. 1)

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<sup>43</sup> Over- and under-collections are related to the degree to which actual costs during a given period may vary from the retail rates that were set for that period. If there is significant uncertainty about the all-in dollar-per-megawatt-hour default service supply cost for an upcoming rate period when the default service retail supply rate for that period is set, then the likelihood of significant over- and under-collections is increased. This is the case when a block-and-spot supply component is included in the portfolio, because under the block-and-spot approach the electric distribution company must forecast future default service loads and spot prices, and actual outcomes may deviate significantly from the forecasted values. In contrast, FPFR products generally entail very little uncertainty about the default service supply costs on a dollars-per-megawatt-hour basis for any given upcoming rate period at the time that the default service retail rate for that period is set, effectively reducing the potential for significant over- or under-collections. It should be noted that over- and under-collections also can occur due to billing cycle lag.

1 and Carol Reilly (PECO Energy Statement No. 3), PECO will continue its existing  
2 Standard Offer Program through May 31, 2025.

3 **29. Q. Do you believe that FPFR suppliers' bid prices will be noticeably higher due to**  
4 **PECO's proposal to include the supply for PECO's Time-of-Use ("TOU")**  
5 **default service customers in the FPFR products?<sup>44</sup>**

6 A. No. Both the standard default service and the TOU default service will be supplied  
7 via the same FPFR products, so customer switching between standard default service  
8 and TOU default service will not cause load uncertainty issues that the suppliers  
9 otherwise may be expected to price into their bids.<sup>45</sup> Furthermore, since suppliers  
10 will be paid the same price for a megawatt-hour of supply whether that supply is for a  
11 standard default service customer or a TOU default service customer, suppliers will  
12 not bear any revenue risk associated with whether a given megawatt-hour of supply is  
13 needed by a standard default service customer or a TOU default service customer. In  
14 addition, to the extent that customers elect TOU default service and shift their usage  
15 to lower-priced periods or reduce their usage during higher-priced periods, the  
16 underlying market-based cost to supply the customers could be reduced, resulting in  
17 lower FPFR supplier bid prices over time. Finally, experience with opt-in time-of-use  
18 programs indicates that the number of customers who elect PECO's TOU default

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<sup>44</sup> In PECO Energy Statement No. 2, PECO witness Joseph A. Bisti describes PECO's TOU default service proposal in detail.

<sup>45</sup> In contrast, if the supply for the TOU default service customers were solicited separately, the suppliers of the standard default service FPFR supply products would bear additional risks related to customer switching to and from the TOU default service option. PECO's proposal eliminates these risks and is relatively easy to administer.

1 service is likely to be relatively small relative to the overall default service customer  
2 base. If TOU default service is expected to represent a small percentage of a given  
3 FPFRR product's supply, then any effects of the TOU default service offering on the  
4 FPFRR product supplier's bid price should be small.

5 **IV. CONCLUSION**

6 **30. Q. Does this conclude your direct testimony?**

7 A. Yes, it does.