PECO ENERGY COMPANY
STATEMENT NO. 2

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: JOSEPH A. BISTI

SUBJECTS: DEFAULT SERVICE RATE DESIGN,
TIME-OF-USE RATES, AND
TARIFF CHANGES

DATED: MARCH 13, 2020

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DIRECT TESTIMONY
OF
JOSEPH A. BISTI

I. INTRODUCTION AND PURPOSE

1. Q. Please state your full name and business address.

A. My name is Joseph A. Bisti. My business address is PECO Energy Company, 2301 Market Street, Philadelphia, Pennsylvania 19103.

2. Q. By whom are you employed and in what capacity?

A. I am employed by PECO Energy Company ("PECO" or the "Company") as a Principal Regulatory and Rates Specialist. In that capacity, I am responsible for tariff administration, financial analysis, project management and regulatory affairs relating to PECO's electric and gas operations, including preparation of written testimony and other filings in proceedings before the Pennsylvania Public Utility Commission ("Commission" or "PUC").

3. Q. Please describe your educational background.

A. I earned a Bachelor of Science in Economics from The College of New Jersey in 2000, a Master of Science in Training and Organizational Development from Saint Joseph's University in 2009, and a Graduate Certificate in Utility Management from Willamette University in 2012. In 2015, I earned certification as a Project Management Institute Professional in Business Analysis (PMI-PBA).

4. Q. Please describe your work experience with PECO.

A. In February 2019, I was promoted to my current position within PECO's Regulatory Policy and Strategy department. Prior to that promotion, I was a

Senior Rate Administrator for over three years, during which I assumed oversight responsibilities for tariff administration as described above. In that position, my responsibilities also included analyzing and applying PECO's tariffs to retail customers, as well as coordinating and preparing PECO testimony and comments in several Commission proceedings.

For approximately nine years prior to my role as a Senior Rate Administrator, I was a Senior Analyst in PECO's Energy Acquisition department. The Energy Acquisition department is responsible for PECO's interaction with electric generation suppliers ("EGSs") and for fulfilling PECO's obligation as a default service provider to serve electric retail customers who need, or choose to obtain, default service.

5. Q. Have you previously testified before the Commission?

A. Yes. I have testified in the following proceedings before the Commission:

Docket Nos. C-2008-2058320 and C-2009-2089694 – *Rama Construction Inc. T/A Ramada Inn Int'l Airport v. PECO Energy Company*

Docket Nos. M-2018-3005860 et al. – *Office of Consumer Advocate v. PECO Energy Company*

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

A. The primary purpose of my direct testimony is to describe the rate design to take effect with the commencement of PECO's fifth default service program ("DSP V") on June 1, 2021. With one addition, PECO is adopting the same rate design employed in its fourth default service program ("DSP IV"), which the Commission previously approved as consistent with the Public Utility Code

("Code") and the Commission's default service regulations. The only change PECO is proposing in this filing is the introduction of Time-Of-Use ("TOU") default service rate options for eligible customers in PECO's Residential and Small Commercial procurement classes (the "TOU Rates") to comply with PECO's obligation under Act 129 of 2008 ("Act 129") to offer TOU and real-time rates to all default service customers with smart meters.[1]

In addition, I explain PECO's proposed tariff changes to facilitate shopping for electric generation supply by customers who participate in PECO's Customer Assistance Program ("CAP"). I also describe the Company's DSP V cost-recovery proposal for its plans to implement both optional TOU default service rates and its CAP Shopping Plan ("Plan"). Finally, I cover two topics that the Commission asked electric distribution companies ("EDCs") to address in upcoming default service program ("DSP") filings (adjustment of PECO's Price-to-Compare ("PTC") for default service and TOU rate design).[2]

7. Q. Please identify the exhibits you are sponsoring.

A. I am sponsoring the following exhibits:

Exhibit JAB-1	System Peak Usage Analysis
Exhibit JAB-2	Pricing Analysis and TOU Pricing Multiplier Calculations
Exhibit JAB-3	TOU Period Allocator Calculations
Exhibit JAB-4	TOU Pricing Methodology – Illustrative Example

[1] 66 Pa.C.S. § 2807(f)(5). The hourly-priced default service rate for the Consolidated Large Commercial and Industrial ("C&I") Class already meets Act 129 requirements.

[2] *Investigation into Default Serv. and PJM Interconnection, LLC Settlement Reforms*, Docket No. M-2019-3007101 (Secretarial Letter issued Jan. 23, 2020) ("January 2020 Secretarial Letter").

Exhibit JAB-5	Net Metering, TOU Monthly Accounting and Cashout – Illustrative Example
Exhibit JAB-6	DSP V Estimated Filing and Program Costs
Exhibit JAB-7	Revised Electric Service Tariff (Relevant Pages)
Exhibit JAB-8	Revised Electric Service Tariff (Blackline)
Exhibit JAB-9	Responses to Questions in 52 Pa. Code § 53.52(a)
Exhibit JAB-10	Electric PTC History, GSA 1 (Residential) and GSA 2 (Small C&I – Rate GS General Service), January 2011 – Present

II. DEFAULT SERVICE RATE DESIGN

8. Q. Mr. Bisti, please provide an overview of PECO's current default service rate design and the costs those rates recover.

A. Under DSP IV, PECO conducts competitive procurements of default service supply for three different customer classes ("procurement classes"):

(i) Residential Class or "GSA 1" (Rate Schedules R and RH);

(ii) Small Commercial Class or "GSA 2" with up to and including 100 kW of annual peak demand (Rate Schedules GS, PD, and HT) and lighting customers (Rate Schedules AL, POL, SLE, SLS, SLC, and TLCL); and

(iii) Consolidated Large C&I Class or "GSA 3/4" whose annual peak demand is greater than 100 kW (Rate Schedules GS, PD, HT and EP).

Each default service rate consists of a generation and transmission component. The Generation Supply Adjustment ("GSA") currently recovers generation supply costs, Alternative Energy Portfolio Standards ("AEPS") compliance costs, and ancillary service costs. In addition, the GSA includes an administrative cost factor and a working capital factor. Administrative costs include the costs incurred by PECO to implement its Commission-approved programs designed to enhance the competitive retail market. PECO allocates administrative costs to the procurement classes based on default service supply sales unless a direct assignment is required. The working capital component is a fixed price per kWh that was established at 0.019¢ per kWh in the settlement of PECO's last electric distribution rate case at Docket No. R-2018-3000164.

PECO recovers Network Integration Transmission Service ("NITS") and Non-Firm Point-to-Point Transmission costs imposed by PJM Interconnection, L.L.C. ("PJM"), for transmission service that PECO acquires on behalf of default service customers through the Company's Transmission Service Charge ("TSC").

The Commission's Regulations (52 Pa. Code § 54.187(h)) provide that default service rates may be adjusted no more frequently than quarterly for customers with load requirements up to 25 kW. Those regulations (52 Pa. Code § 54.187(i)) also provide that default service rates shall be adjusted on a quarterly basis, or more frequently, for customers with load requirements between 25 kW and 500 kW. Finally, the Commission's regulations (52 Pa. Code § 54.187(j)) provide that default service rates shall be adjusted on a monthly basis, or more frequently for customers with load requirements equal to or greater than 500 kW.

9. Q. Please describe how the Company's default service rates are structured and adjusted for customers with annual peak demand up to and including 100 kW.

A. Under the current GSA approved by the Commission in DSP IV, PECO projects the cost of generation supply for each customer class with annual peak of up to and including 100 kW (i.e., residential and small commercial customers) on a quarterly basis. Those GSA projection periods are synchronized with PJM's planning year (June 1-May 31), corresponding to the quarters of June-August, September-November, December-February, and March-May. The projected cost of supply is a function of projected default service sales and projected procurement costs under PECO's generation supply contracts. This projection, combined with PECO's TSC, forms the basis of the PTC that customers may use to evaluate competitive generation service offerings by EGSs.

PECO files the GSA for each quarter 45 days before the start of that quarter. In accordance with its tariff, PECO compares its actual default service supply costs to the billed revenue it receives from customers under the GSA for default service. The GSA includes a charge or credit, known as the "E-Factor," for semi-annual reconciliation of any over/undercollection of actual revenues against actual costs for each procurement class. For example, PECO calculates the over/undercollection for the six-month period January 1 through June 30 by July 15 and includes that amount in the E-Factor during the six-month period beginning September 1. Interest on any overcollection and undercollection accrues from the month of such over/undercollection to the midpoint of the refund period in accordance with the Commission's default service regulations at 52 Pa. Code § 54.190.[3]

[3] Those regulations, adopted by the Commission in 2015, establish a symmetrical rate of interest applicable to both overcollections and undercollections resulting from the reconciliation of default service costs. Specifically, the applicable rate of interest for over/undercollections is the prime rate for commercial borrowing, not to exceed the legal rate of interest, in effect on the last day of the month the over/undercollection occurred,

10. Q. Please describe how the Company's default service rates are structured and adjusted for commercial and industrial customers receiving hourly-priced default service.

A. Under DSP IV, commercial and industrial customers with annual peak demand greater than 100 kW are supplied entirely by hourly priced products for generation. These include the day-ahead hourly price of energy as well as a demand charge based upon the reliability pricing model ("RPM") implemented by PJM. The individual customer's RPM charges are based upon the customer's Peak Load Contribution and RPM prices.

Additionally, the costs of acquiring ancillary services from the PJM market, AEPS compliance costs, an allocated portion of PECO's banked AECs, administrative costs and working capital are charged to these customers each month. The Company provides an estimate of these components of hourly priced default service rates, exclusive of energy and capacity costs, known as the "Hourly Pricing Adder," at least 45 days prior to the start of each quarter.

Under the current GSA, PECO reconciles any over/undercollection for customers receiving hourly-priced default service on a semi-annual basis through the E-Factor in the same manner as the Residential and Small Commercial Classes. Likewise, interest on any over/undercollection accrues in the same manner and at the same rate as for the Residential and Small Commercial Classes, as described above.

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as reported in *The Wall Street Journal*. *See generally Automatic Adjustment Clauses Related to Elec. Default Serv.*, Docket No. L-2014-2421001(Final Rulemaking Order entered June 11, 2015).

11. Q. Has PECO implemented any strategy to mitigate fluctuations in the PTC caused by over/under collections?

A. Yes. Over/undercollections are driven by two factors: (1) the difference between actual and projected supply costs and (2) billing cycle lag. Customer billing cycles (mostly non-calendar months) are not perfectly aligned with the actual incurrence of generation supply costs (mostly calendar months). Because customers are billed at different times throughout the month, the revenue from the month reflects sales from the subject month and the prior month that may have experienced higher or lower usage. This billing cycle lag results in a timing difference between revenue and expense that can produce significant fluctuations in the PTC that are not directly related to the underlying cost of default service supply. PECO uses a semi-annual, rather than quarterly, schedule for the reconciliation of over/undercollection amounts for the Residential and Small Commercial Classes to mitigate the potential volatility in default service rates for these customers.

Billing lag is also the primary driver of fluctuations in the Consolidated Large Commercial and Industrial Class PTC. Billing lag can cause a large overcollection for commercial and industrial customers receiving hourly priced default service in one month immediately followed by a large undercollection the next month. Accordingly, PECO currently reconciles the E-Factor of the GSA for those customers on a semi-annual, instead of a monthly, basis in the same manner as over/undercollections are handled for the Residential and Small Commercial Classes.

12. Q. Is PECO proposing to maintain its existing default service rate design in DSP V?

A. Yes, with the addition of the optional TOU Rates for the Residential and Small Commercial Classes. As discussed in detail in Section III below, under the Company's proposed TOU rate options, eligible default service customers will pay a discounted rate for off-peak usage and a higher rate for peak usage relative to PECO's standard non-time varying default service rate.

13. Q. Is PECO seeking a waiver of the Commission's regulations to continue semi-annual reconciliation of the over/undercollection component of the GSA?

A. Yes. As I explained previously, the Commission's Regulations (52 Pa. Code §§ 54.187(h)-(j)) require adjustment of default service rates on a quarterly basis, or more frequently, for customers with load requirements up to 500 kW and on a monthly basis, or more frequently, for customers with load requirements above 500 kW. However, the Commission has recognized that more extended periods for over/undercollection reconciliation may help keep default rates more market-reflective,[4] and the Commission granted PECO a waiver from these regulations in DSP IV to implement a semi-annual E-Factor reconciliation for the Residential, Small Commercial and Consolidated Large Commercial and Industrial Classes.[5] PECO again requests a waiver of these regulations, to the extent necessary, to maintain its current semi-annual reconciliation schedule for the Residential and

[4] *See Investigation of Pennsylvania's Retail Elec. Mkt.: Recommendations Regarding Upcoming Default Serv. Plans*, Docket No. I-2011-2237952, at pp. 54-55 (Order entered Dec. 16, 2011).

[5] *Petition of PECO Energy Co. for Approval of its Default Serv. Program for the Period from June 1, 2017 through May 31, 2021*, Docket No. P-2016-2534980 (Opinion and Order entered Dec. 8, 2016) ("DSP IV Order"), p. 67.

Small Commercial procurement classes throughout DSP V to continue to mitigate potential default service rate volatility that may otherwise result from billing cycle lag.

14. Q. Is PECO seeking any other waiver of the Commission's Regulations to implement the proposed DSP V rate design?

A. Yes. In the DSP IV Order (p. 67), the Commission granted PECO a waiver of its Regulations (52 Pa. Code § 54.187(j)) to implement a quarterly, instead of monthly, filing schedule for Consolidated Large Commercial and Industrial Class default service rates in the same manner and at the same time as the Residential and Small Commercial Class default service rates. To the extent necessary, PECO again requests a waiver to continue to align the filing schedule for Consolidated Large Commercial and Industrial Class default service rates with PECO's other procurement classes and reduce administrative burden on both the Company and Commission Staff.

III. TIME-OF-USE RATE OPTIONS

15. Q. Does PECO currently offer TOU rate options to Residential or Small Commercial default service customers under DSP IV?

A. No. PECO previously offered a TOU generation rate through a PUC-approved, one-year pilot program known as the "PECO Smart Time Pricing Pilot" ("Pilot").[6] The primary objectives of the Pilot were to gauge customer interest in a TOU rate,

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[6] *Petition of PECO Energy Co. for Approval of its Initial Dynamic Pricing and Customer Acceptance Plan*, Docket No. M-2009-2123944 (Order entered Apr. 15, 2011) ("Dynamic Pricing Order").

assess the reasons why customers chose to enroll in or leave the program, and evaluate the impact of TOU rates on electricity consumption patterns.

The Pilot offered eligible customers a two-part TOU generation rate, a bill protection feature based upon PECO's default service rate at the time, and the option to leave the Pilot at any time without incurring cancellation fees or penalties. The two-part Pilot TOU rate structure offered a higher rate during non-holiday weekday afternoons from 2 p.m. to 6 p.m. and a reduced rate for all other hours of the year. The EGS selected through a competitive procurement process served as the TOU commodity supplier and implementation vendor for the pilot.[7]

The Pilot was offered to nearly 121,000 residential customers and over 3,500 small commercial customers from September 1, 2013 through November 1, 2013. In total, 4,779 residential customers and 23 small commercial customers enrolled, representing about 4% of the targeted population.

16. Q. Please summarize the key findings of the PECO Smart Time Pricing Pilot.

A. End-of-pilot survey and focus group results revealed that the main driver of customer interest and satisfaction with the Pilot was the opportunity to save money on their electric bills. Most residential customers who enrolled in the Pilot took action to shift consumption away from peak hours and saved money as a result, with monthly bill savings exceeding $5 for more than 2,350 customers. Only thirteen customers needed bill protection reimbursement from PECO, and

[7] *Petition of PECO Energy Co. for Expedited Approval of its Dynamic Pricing Plan Vendor Selection and Dynamic Pricing Plan Supplement*, Docket No. P-2012-2297304 (Opinion and Order entered Sept. 26, 2012) (approving modifications to the commodity supply, dynamic rate structure, size and term of the pilot approved in the Dynamic Pricing Order to enable an EGS to provide TOU supply in lieu of PECO).

the total amount refunded was very small (just over $100 in the total program, with individual amounts ranging from $1.01 to $19.23).

The Pilot delivered an average load reduction of 6% per customer during peak hours from June 2014 through August 2014, with load reductions in the 3%-4% range during September and spring months (March through May). The greatest load impact results came from customers who shifted large appliance and heating/cooling energy use outside of peak hours.

17. Q. Why is PECO proposing the new TOU Rates?

A. Since the Pilot, the scope of an EDC's obligation to offer TOU rates to default service customers was the subject of litigation before the Commission and Commonwealth Court.[8] Following this litigation, the Commission proposed a new TOU structure for PPL to satisfy Act 129 requirements.[9] The Commission noted that the proposed TOU design for PPL "may provide future guidance to all EDCs" for incorporation into their own TOU proposals in their individual default service proceedings.[10] At the same time, the PUC made clear that EDCs would have "the flexibility to propose other alternatives and/or modifications regarding their TOU operations" for PUC review and approval in future DSP filings.[11]

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8 *See Petition of PPL Elec. Utils. Corp. for Approval of a New Pilot Time-of-Use Program*, Docket No. P-2013-2389572 (Order entered Sept. 11, 2014) (holding that Act 129 did not require PPL Electric Utilities Corp. ("PPL") to offer TOU rates directly to customer-generators); *Dauphin Cty. Indus. Dev. Auth. v. Pa. P.U.C.*, 123 A.3d 1124, 1136 (Pa. Cmwlth. 2015) ("*DCIDA*") (holding that Act 129 does not authorize default service providers to delegate the obligation to offer TOU rates to customers with smart meters to EGSs).

9 *Petition of PPL Elec. Utils. Corp. for Approval of a New Pilot Time-of-Use Program*, Docket Nos. P-2013-2389572 and M-2016-2578051 (Secretarial Letter issued Apr. 6, 2017) ("April 2017 Secretarial Letter").

10 *Id.*, p. 4.

11 *Id.*

18. Q. What are the objectives underlying PECO's proposed TOU Rates?

A. In addition to the guidance provided in the April 2017 Secretarial Letter, PECO considered the following objectives in designing the Company's proposed TOU Rates to comply with Act 129 requirements and to implement lessons learned from the Pilot:

1. **Simplicity and value proposition for customer enrollment**. TOU rates can help customers reduce electricity bills by incentivizing customers to shift usage to lower-cost, off-peak hours. However, customers are more likely to enroll in and respond effectively to TOU rates if they understand the TOU rate structure and related potential for savings.

2. **Retail-to-wholesale market connection**. On February 26, 2019, the Commission entered an Order at Docket No. M-2019-3007101 to initiate an investigation of potential opportunities to better reflect wholesale cost causation in default service rates and incentivize customer behavior to lower peak demand. To that end, PECO considered cost-causation principles in developing its proposed TOU Rates to connect the product pricing structure to the PJM energy and capacity markets, as well as the generation component of PECO's default service rates, i.e., the GSA.

3. **Incentives for customer electric vehicle ("EV") adoption**. In the past five years, the number of known EV operators in PECO's service territory has grown significantly, with the number of EVs registered through PECO's Smart Driver Rebate program increasing from 3,000 customers to

over 11,000 customers. In the January 2020 Secretarial Letter (p. 6), the PUC observed that EV use will increase across the Commonwealth in the coming decades. Based on this observation, the Commission directed EDCs to explore TOU rates in the context of EV expansion and consider whether "the lack of TOU rate offerings for operators of EVs presents a barrier to EV adoption."[12] In order to address the Commission's guidance, PECO's proposed TOU Rates include a super off-peak pricing period to encourage EV charging during overnight low-priced energy hours and, in turn, lower the overall total cost of EV ownership.

19. Q. What are the key features of PECO's proposed TOU Rates?

A. As shown in the table below, PECO's proposed TOU Rates differentiate prices across three periods (peak, off-peak and super off-peak) that remain constant year-round based on price multipliers designed to motivate shifting of usage from the higher-cost peak period to lower-cost off-peak periods. The TOU pricing periods are identical for the Residential and Small Commercial Classes.

TOU Pricing Period	Year-Round Days/Hours Included
Peak	2 p.m. – 6 p.m. Monday Through Friday, excluding PJM holidays
Super Off-Peak	Midnight (12 a.m.) – 6 a.m. Every day
Off-Peak	All other hours

[12] January 2020 Secretarial Letter, p. 7.

The proposed TOU rate design is structured to establish a rate premium above PECO's standard, fixed-price default service rate for usage during the peak period and rate discounts from this baseline price for usage during two off-peak periods. The baseline price is the customer's applicable GSA rate, prior to application of the TOU price multipliers discussed later in my testimony.

20. Q. What customers are eligible for PECO's TOU Rates?

A. Consistent with the April 2017 Secretarial Letter, PECO's TOU Rate will be available, with limited exceptions, to default service customers with smart meters who are not receiving hourly priced default service (i.e., the Residential and Small Commercial Classes). As a prerequisite for enrollment, PECO must be able to configure the customer's smart meter to measure energy consumption in watt-hours. The customer must have a valid e-mail address to ensure that the Company is able to provide the enrolled TOU customers with timely and meaningful communications regarding their savings performance. Residential customers enrolled in PECO's CAP will not be eligible for the residential TOU Rate at this time.

21. Q. Please explain why CAP customers will not be offered the residential TOU Rate.

A. As explained by Ms. Reilly in PECO Statement No. 3, CAP customers receive a fixed bill credit each year for the utility service they receive based on their ability to pay regardless of the actual amount of their utility bill. The selection of the TOU Rate could adversely impact those benefits because CAP customers may not have the flexibility to shift usage outside of the higher-priced peak period. In addition, a CAP customer's evaluation of whether CAP benefits outweigh the potential bill savings under a TOU rate is dependent on PECO's current CAP design, which may change during the DSP V term.[13] Therefore, PECO is proposing to exclude CAP customers from the TOU Rate at this time to avoid the risk of higher generation charges on those customers' electric bills that could jeopardize affordability and impose an unreasonable cost burden on all residential customers that pay for the CAP.

22. Q. How did PECO determine the number and times of the price-differentiated usage periods?

A. PECO's proposed TOU pricing structure is designed to reasonably encompass the expected system peak usage times while addressing the need for simplicity to encourage customer enrollment. The Company examined PJM's PECO zonal load data and energy prices over a five-year historic period (2014-2018). As shown on Exhibit JAB-1, system peak usage generally occurred during weekdays over five months of the year (May-September). Over the 2014-2018 period, the hours between 2 p.m. and 6 p.m. from May through September tended to have the highest system loads. Similarly, between May and September each year, energy prices in general were higher during these four hours of the day.

Based on this data, PECO defined the peak period as 2 p.m. to 6 p.m. on non-holiday weekdays. PECO selected the same year-round peak period employed in its Pilot, in which, as I previously explained, participating customers successfully

[13] The Commission's Bureau of Consumer Services and Law Bureau have been directed to prepare a comprehensive universal service rulemaking order no later than the first quarter of 2020. *See Universal Serv. Rulemaking*, Docket No. L-2019-3012600 (Order entered Jan. 2, 2020).

responded to the TOU price signals to shift usage and achieve bill savings. The proposed peak period also allows for material price differentials that will be more likely to motivate customers to shift consumption to lower-priced (off-peak) hours.

Consistent with the January 2020 Secretarial Letter, PECO's proposed TOU Rates include a super off-peak pricing window to provide cost savings opportunities for EV operators. Based on PECO's system load patterns, the super off-peak period is defined as 12 a.m. to 6 a.m. every day to encourage EV charging within times of low energy prices.

23. Q. Why is PECO proposing year-round price-differentiated usage periods even though the April 2017 Secretarial Letter recommends seasonal variation?

A. PECO is proposing to apply the TOU Rates year round based on the results of the Pilot. This design is easier for customers to understand and reduces the number of variables for customers to consider in changing their consumption patterns. It also simplifies the development of TOU price ratios. PECO believes the year-round nature of its proposed TOU Rates strikes a balance reflective of periods that include the system peak while remaining more convenient and actionable for customers.

24. Q. How did PECO develop the price ratios that will used to set TOU rates for the peak, off-peak and super off-peak usage periods?

A. In the April 2017 Secretarial Letter, the Commission recommended that EDCs develop price multipliers to appropriately motivate shifting of consumption from on-peak to off-peak periods. To that end, PECO first examined five years of historical PJM Day-Ahead Spot Market Pricing data (2014-2018) for the PECO Zone to calculate the ratios of (1) the average annual peak price to the average annual super off-peak price, and (2) the average annual off-peak price to the average annual super off-peak price.

In addition to wholesale energy prices, the calculation of TOU rates depends on the cost of capacity, which varies by procurement class. PECO is proposing to allocate the cost of capacity to peak hours and off-peak hours only. This approach will send cost-based price signals and create larger peak/off-peak price differentials that are more likely to motivate customers to adjust the time of day they use electricity. PECO allocated capacity costs to peak hours using the percentage of the average daily PECO zonal capacity obligation under PJM's five coincident peak ("5CP") methodology[14] over the historic five-year period (2014-2018). PECO calculated these percentages (the "Capacity Cost Allocators") based on the average of the highest hourly demand (in MWh) during the proposed TOU peak pricing period (2-6 p.m.) on each of the PJM 5CP days. PECO added the remaining percentage of capacity costs to the respective off-peak pricing multiplier.

Based on the foregoing analyses, PECO is proposing to set the TOU price multipliers for each procurement class shown in the table below. These multipliers will remain constant throughout the DSP V term. The proposed

[14] The 5CPs are the five highest daily PJM peak loads for each summer (June 1 through September 30).

multipliers reflect the ratios calculated from average PJM PECO zone spot market prices as well as the cost of capacity during peak hours. Detailed calculations of the Company's proposed TOU pricing multipliers are provided in Exhibit JAB-2.

TOU Pricing Period	GSA-1 TOU Pricing Multipliers*	GSA-2 TOU Pricing Multipliers*
Peak	6.5	5.1
Super Off-Peak	1	1
Off-Peak	1.5	1.7

*Ratio to super off-peak TOU price

25. Q. Mr. Bisti, how will the TOU Rates be set for each procurement class using the Company's proposed pricing differentials?

A. As explained by Mr. McCawley in PECO Statement No. 1, PECO will source the residential and small commercial customers' standard and TOU default service from the same supply portfolio for each procurement class. PECO will continue to calculate the standard GSA on a quarterly basis based on the results of these procurements and use the standard GSA as the reference price for PECO's TOU rate calculations. The super off-peak price will be calculated to provide a discount from the standard GSA price in a way that offsets the higher peak and off-peak period prices and ensures revenue neutrality. The revenue neutral super off-peak price for each procurement class is derived from the portion of total system kWh usage attributable to each TOU pricing period. PECO determined these percentages (the "TOU Period Allocators") described in Exhibit JAB-3 based on PJM energy market settlements over the most recent historical five-year period (2014-2018).

The peak and off-peak TOU prices are a factor of multiplying the super off-peak price by the multiplier for the applicable procurement class and TOU pricing period. Exhibit JAB-4 provides an illustration of the TOU Rate for residential customers based on the proposed TOU pricing multipliers for DSP V and the GSA rate effective as of March 1, 2020.

26. Q. Please describe how default service rates will be adjusted for customers enrolled in the Company's TOU Rate.

A. The TOU Rates will be calculated on a quarterly basis, synchronized with the GSA adjustment periods for the Residential and Small Commercial class, using the Company's proposed pricing methodology. TOU customer kWh sales and costs will be included in the semi-annual reconciliation of the over/undercollection component of the GSA for the entire procurement class (i.e., Residential or Small Commercial). PECO's proposed reconciliation process using a single E-Factor for each procurement class will help mitigate potential large swings in GSA over/undercollections that could arise if customers switch between PECO's standard default service rate and TOU default service rate. In addition, the Commission has previously authorized other EDCs to recover TOU over/undercollection amounts from all default service customers based on its finding that the TOU rates mandated by Act 129 are a "form of default service."[15]

27. Q. Will customer-generators in the Residential and Small Commercial Classes who employ net metering be eligible for the TOU Rates?

A. Yes. Customer-generators who employ net metering will be eligible for the TOU Rate, consistent with the April 2017 Secretarial Letter. Customer-generators who employ virtual net metering will not be eligible due to the administrative complexity of offering TOU rates to those customers.

28. Q. Please explain the monthly accounting and annual cash out process for net metering TOU customers.

A. In each billing month, PECO will separately track net excess generation created by TOU net-metering customers within the TOU peak, off-peak and super off-peak periods. Any excess generation will be banked for use by the customer in subsequent billing periods. During any month when a TOU net metering customer consumes power in excess of the power generated by its facilities, the excess generation in the applicable TOU rate period will be used to reduce or offset the customer's bill at the full retail rate, including the current TOU prices for generation, in accordance with the Commission's guidance in the April 2017 Secretarial Letter.

At the end of the PJM planning period on May 31 of each year, a TOU net metering customer's accumulated excess generation will be cashed out based on

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[15] *See Pa. P.U.C. v. PPL Elec. Utils. Corp.*, Docket No. R-2011-2264771 (Opinion and Order entered Aug. 30, 2012), pp. 22-23.

the applicable TOU rate and TSC in effect at the time that the excess electricity was generated. Exhibit JAB-5 provides a detailed example of how PECO will calculate the TOU net metering customer's total end-of-year compensation.

29. Q. How can customers enroll in PECO's TOU rate options?

A. Eligible default service customers may enroll in PECO's TOU Rates online or through the Company's Care Center. Customers will not be charged enrollment fees and may cancel TOU service at any time without a penalty or fee. Participating customers will remain on the TOU Rate until they affirmatively elect to return to PECO's standard default service rate, switch to an EGS, or otherwise become ineligible.

30. Q. Is PECO proposing any restrictions to reduce "free riders" who enroll in a TOU rate only for times of the year when they do not have to shift usage to save money?

A. Yes. TOU customers leaving the TOU Rate for any reason will be precluded from re-enrolling in the TOU Rate for twelve billing months after switching off the TOU Rate.

31. Q. Please describe PECO's communications plan to inform customers about the new TOU Rates and update enrolled TOU customers about the opportunity for bill savings.

A. PECO's communications plan will focus on introducing the educational tools and information to help customers make a rate choice that works best for them. In accordance with the Commission's guidance in the April 2017 Secretarial Letter, PECO will establish a web page dedicated to the Company's TOU Rate that will summarize the new TOU Rates, describe tips and ideas on how to shift electricity use, and provide information about how customers can determine the effect of the TOU Rates on their monthly electricity bills. PECO's communications plan will also include a one-time bill insert and targeted outreach to the customers who have registered EVs with PECO to introduce the new TOU Rates and instruct customers on how to obtain more information.

PECO will distribute progress letters via e-mail to enrolled TOU customers on a monthly basis that will update customers on their current savings on the TOU Rate and remind customers about the mechanics of the TOU Rates. In addition, PECO will provide quarterly updates on TOU generation prices on its website, concurrently with standard, fixed-price GSA updates, and in the Company's quarterly GSA filings with the Commission.

32. Q. Has PECO estimated the cost to implement its proposed TOU rate options?

A. Yes. As shown on Exhibit JAB-6, the Company anticipates that it will incur two categories of costs totaling approximately $3.8 million (based on preliminary costs estimates) to implement the TOU Rates. First, PECO will incur costs related to training and information technology ("IT") changes to the Company's billing and customer information systems to support TOU enrollment, billing, meter data management, customer self-service, Care Center scripting, and net metering excess generation tracking and compensation. The second category of expenditures is for customer communications, including care center scripting.

This cost estimate is based on PECO's proposed TOU rate design and PECO will recover the actual costs from customers through the administrative cost factor of the GSA as described in Section IV of my direct testimony.

33. Q. When will PECO's proposed TOU Rates be available to eligible customers?

A. PECO proposes to implement the TOU Rates at least twelve months following the Commission's final Order in this proceeding. This implementation timeline will allow sufficient time for the Company to develop customer education materials and complete IT programming necessary to implement the final TOU rate design approved by the PUC in this proceeding.

IV. RECOVERY OF DEFAULT SERVICE PROGRAM AND CUSTOMER ASSISTANCE PROGRAM SHOPPING PLAN IMPLEMENTATION COSTS

34. Q. Is PECO entitled to full and current recovery of all costs associated with DSP V?

A. Yes. In accordance with Section 2807(e)(3.9) of the Code, PECO is formally requesting that the Commission expressly affirm PECO's right to full and current recovery of all costs of DSP V.

35. Q. Is the Company seeking to continue to recover the cost of its default service proceedings through the GSA?

A. Yes. Consistent with the Commission's Policy Statement at 69 Pa. Code § 69.1808(a)(4) and the current GSA, the cost of this proceeding, including consultant fees, attorney fees, and costs related to IT changes, will be recovered through the GSA as an expense over the DSP V term. The estimated administrative cost, including the costs to implement the Company's proposed TOU Rates during the DSP V term, is delineated on Exhibit JAB-6.

36. Q. How does PECO propose to recover Standard Offer Program costs during DSP V?

A. Consistent with PECO's existing tariff and the DSP IV Order (p. 67), the Company proposes to continue to recover Standard Offer Program costs through an EGS participant fee not to exceed $30 per referred customer, with any remaining costs recovered in the following manner: (1) fifty percent from EGSs through a Purchase Of Receivables discount; and (2) fifty percent from Residential and Small Commercial default service customers via the GSA.

37. Q. Mr. Bisti, please describe PECO's proposed mechanism to recover the CAP Shopping Plan implementation costs described by Ms. Reilly in PECO Statement No. 3.

A. The Company is proposing to recover the costs associated with the customer-education initiatives included in the CAP Shopping Plan from residential customers in the current Consumer Education Charge approved by the Commission in Docket No. P-2011-2279773. The Company proposes to recover the remaining Plan implementation costs, which consist primarily of IT changes, from residential customers in a subsequent base rate case.

V. OTHER RETAIL TARIFF CHANGES

38. Q. Is PECO proposing any changes to its Electric Service Tariff to implement new TOU rate options for the Residential and Small Commercial Classes?

A. Yes. PECO is proposing the following tariff revisions to implement its TOU proposal:

- **TOU Prices and Terms and Conditions of Service**. The GSA for the Residential and Small Commercial Classes has been expanded to describe the new TOU Rates, including customer eligibility, pricing provisions, and switching rules. The pricing provisions include the current TOU Rates for each price-differentiated period and the formulas showing how PECO calculates the quarterly changes to the TOU Rates. In addition, PECO's CAP Rider has been revised to clarify that the TOU Rates are not available to CAP customers.
- **Reconciliation of TOU Rates**. PECO has revised the reconciliation provisions of the existing GSA to clarify that TOU and standard default service rate over/undercollections will be calculated in total for each procurement class.
- **TOU customer-generators**. The billing provisions for PECO's Rate RS-2 Net Metering have been revised to describe the accounting and cash-out process for TOU customer-generators.

These changes are shown in the clean and blacklined versions of PECO's electric service tariff attached to my testimony as Exhibit JAB-7 and Exhibit JAB-8, respectively.

39. Q. Does PECO's CAP Rider need to be revised to allow CAP customers to receive competitive generation supply?

A. Yes. PECO is proposing to eliminate the current restriction on availability of the CAP Rider to customers who obtain competitive energy supply. *See* Exhibit JAB-8.

40. Q. Has the Company submitted responses to the questions regarding changes to its tariff required by the Commission's Regulations?

A. Yes. Exhibit JAB-9 provides the Company's responses to the questions in 52 Pa. Code § 53.52(a).

VI. JANUARY 2020 SECRETARIAL LETTER TOPICS

41. Q. Did PECO consider the potential benefits of a semi-annual, instead of quarterly, adjustment schedule for default service rates based on the history of the Company's PTC as directed by the January 2020 Secretarial Letter?

A. Yes. PECO examined its electric PTC for the Residential Class and customers on Rate GS in the Small Commercial Class since PECO implemented its first DSP on January 1, 2011. Exhibit JAB-10 presents PECO's PTC history by quarter and procurement class. PECO assessed the benefits presented by both a six-month and three-month default supply price projection period in the context of the Company's PTC history. While a semi-annual schedule may offer several benefits, including less administrative complexity, quarterly changes to the PTC allow for more incremental adjustments consistent with the ratemaking principle of gradualism and to insulate customers from potential larger rate changes. Based on the Company's analysis, PECO is proposing to continue to adjust its default service rates each quarter, with semi-annual reconciliation of the E-Factor at this time. PECO believes its current approach appropriately balances the responsiveness of the PTC to current market conditions and fluctuations caused by billing lag.

42. Q. How is PECO proposing to make TOU rates available to EV operators during DSP V?

A. As explained in Section III above, PECO's proposed TOU rate design includes a super off-peak pricing time window that features discounted rates that would be attractive for EV charging during the designated hours.

VII. CONCLUSION

43. Q. Does this conclude your direct testimony?

A. Yes.