

**PECO ENERGY COMPANY
STATEMENT NO. 9**

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION
v.
PECO ENERGY COMPANY – ELECTRIC DIVISION

DOCKET NO. R-2021-3024601

DIRECT TESTIMONY

WITNESS: JACQUELINE F. GOLDEN

SUBJECTS: ELECTRIC VEHICLE CHARGING PILOT
AND SMALL BUSINESS RELIEF
PROGRAM

DATED: MARCH 30, 2021

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**DIRECT TESTIMONY
OF
JACQUELINE F. GOLDEN**

4
I. INTRODUCTION AND PURPOSE OF TESTIMONY

5 **1. Q. Please state your name and business address.**

6 A. My name is Jacqueline F. Golden. My business address is PECO Energy
7 Company, 2301 Market Street, Philadelphia, Pennsylvania 19103.

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

9 A. I am employed by PECO Energy Company (“PECO” or the “Company”) as
10 Director of Strategy. In that capacity, I am responsible for managing and
11 directing activities necessary to support executive leadership and business
12 stakeholders with developing strategic business initiatives that will provide value
13 for our customers.

14 **3. Q. Please describe your educational background.**

15 A. I have a Bachelor of Science in Business Administration from Drexel University
16 and a Master of Business Administration from La Salle University.

17 **4. Q. Please describe your professional experience.**

18 A. I began my career with PECO in 1981 as a customer service representative.
19 Between 1981 and 2000, I held positions of increasing responsibility in several
20 departments including customer operations, application support, large customer
21 accounts, and Gas Supply and Transportation (“GS&T”). In 2000, I worked in

1 Energy Acquisition as a principal analyst managing relationships with external
2 electric generation suppliers (“EGSs”) and then transferred into Finance as an
3 analyst, where I ultimately became Manager of Financial Operations in 2007.

4 In 2010, I began working in our Regulatory Affairs Group as a project manager
5 responsible for implementation of the Generation Supply Adjustment (“GSA”)
6 and then, in 2012, I became Manager of Strategic Planning in the Office of the
7 Chief of Staff for the Chief Executive Officer of Exelon Utilities (“EU”). While
8 in EU, I had numerous responsibilities including supporting activities associated
9 with the Exelon and Pepco Holdings, Inc. merger.

10 In July 2019, I was promoted to Director of Strategy for PECO and am now
11 responsible for working closely with our organization and stakeholders to support
12 the development and execution of strategic initiatives that will provide value to
13 our customers.

14 **5. Q. What is the purpose of your testimony?**

15 A. The purpose of my testimony is to describe: (1) PECO’s proposed pilot incentive
16 programs for electric vehicle (“EV”) charging (the “EV Charging Pilot”); and (2)
17 PECO’s proposed Small Business Recovery Program. The EV Charging Pilot is
18 designed to incentivize the development of EV charging sites in the Company’s
19 electric service territory and gather important EV charging data to inform the
20 Company’s future distribution system planning and rate design. The Small
21 Business Recovery Program will offer small business customers in low-income

1 communities a one-time grant of \$3,000 to be applied as a credit on the
2 customer's existing electric account.

3 II. EV CHARGING PILOT

4 **6. Q. Why does PECO believe it is important to support and gather data**
5 **concerning EV charging?**

6 A. The movement toward transportation electrification ("TE") in Pennsylvania is
7 already in progress. At the state level, the Pennsylvania Department of
8 Environmental Protection ("PA DEP") is implementing the Driving PA Forward
9 and the Alternative Fuel Incentive Grant ("AFIG") programs to incentivize TE.
10 Notably, in July of 2020, Pennsylvania entered into a memorandum of
11 understanding with 14 other states and the District of Columbia in which
12 Pennsylvania committed to work collaboratively to advance and accelerate the
13 market for electric medium- and heavy-duty vehicles. The Pennsylvania Public
14 Utility Commission (the "Commission") has also recently observed that EV use
15 will increase across the Commonwealth in the coming years.¹

16 In the private sector, many vehicle manufacturers have announced plans to
17 significantly expand their EV offerings for both passenger and commercial
18 vehicles, and new manufacturers have been entering the market. Developments in
19 EV technology are also making buses and medium- and heavy-duty vehicles
20 available at prices that are competitive on a total cost of ownership basis.

¹ *Investigation into Default Serv. and PJM Interconnection, LLC Settlement Reforms*, Docket No. M-2019-3007101 (Secretarial Letter issued Jan. 23, 2020), pp. 6-7.

1 TE can deliver public benefits by eliminating ground level emissions² and driving
2 local economic investment in charging infrastructure. There are, however,
3 implementation challenges that can impede the transition to TE, including the
4 substantial upfront costs to establish charging stations, the significant load
5 changes on PECO's distribution system arising from increased EV charging
6 activity, and the need to educate customers about the use and benefits of EVs.

7 PECO has already taken steps to support TE and is proposing a new EV Charging
8 Pilot in this proceeding to further address some key implementation challenges.
9 The Pilot will benefit customers by accelerating TE in the Company's electric
10 service territory and generating meaningful data to help PECO in future
11 distribution system planning and rate design.

12 **7. Q. What is the Company already doing to promote EV adoption?**

13 A. PECO has several existing programs to promote EVs and support the
14 development of EV infrastructure in its electric service territory. In terms of rate
15 design, the Company has a five-year Electric Vehicle DCFC Pilot Rider ("EV-FC
16 Rider") that provides for a temporary demand (kW) credit to encourage the build
17 out of publicly available (or workplace fleet) fast charging.³ PECO also plans to
18 launch a time-of-use ("TOU") offering for default generation supply in September
19 of 2021 that will reduce the cost of overnight EV charging and encourage

² More than 99% of PECO customers are in counties that currently have Clean Air Act non-attainment status.

³ The EV-FC Rider was approved as part of the Company's 2018 electric distribution rate case (Docket No. R-2018-3000164). As described in the direct testimony of Company witness Richard A. Schlesinger in PECO Statement No. 8, PECO is proposing to expand the availability of the EV-FC Rider to include public transit.

1 customers to shift load from on-peak to off-peak hours.⁴ The Company further
2 offers customer incentives for registering an EV with PECO and for the
3 installation of qualifying EV chargers. Finally, PECO engages in a variety of
4 customer education efforts, including hosting and participating in public events,
5 maintaining an “EV Toolkit” on the Company’s website, and responding to
6 customer inquiries regarding capacity availability and grid interconnection.

7 **8. Q. Please describe the EV Charging Pilot that PECO is proposing in this**
8 **proceeding.**

9 A. The EV Charging Pilot has three components: (1) the Transit Charging Program;
10 (2) the Commercial and Industrial Level 2 Charging Program (the “L2 Program”);
11 and (3) the Electric Vehicle Education and Outreach Program. Taken together,
12 these programs are designed to incentivize customers to construct and deploy EV
13 chargers, generate data regarding public and fleet charging, and expand PECO’s
14 efforts to educate customers about TE. The Pilot’s Transit Charging Program and
15 L2 Program are technology-neutral, and participating customers will be able to
16 select any charging technology that can deliver the Pilot data requirements.

17 **9. Q. Please describe the Pilot’s Transit Charging Program.**

18 A. PECO understands that large-scale public transit electrification will benefit the
19 public through the elimination of ground level emissions from buses, which serve

⁴ The TOU offering was approved as part of the Company’s most recent Default Service proceeding (Docket No. P-2020-3019290).

1 a high percentage of citizens in Environmental Justice Areas⁵, and that there are
2 some unique challenges associated with transit EV charging. For example, large
3 scale transit charging is likely to create significant new electric loads at sites such
4 as parking lots and bus stops that have historically had very little electric
5 consumption.

6 Transit electrification projects involve significant upfront costs, including higher
7 purchase prices for electric buses, development of charging infrastructure⁶ at bus
8 depots, and in some situations, development of *en route* charging infrastructure in
9 the form of very high capacity chargers (250 kW to 500 kW per charging port)
10 used to quickly “top off” batteries during the normal operating day.

11 To address these challenges, the Transit Charging Program will offer a significant
12 incentive to offset public transit charging station development costs.

13 The Transit Charging Program will be subject to the following requirements and
14 limitations:

- 15 • The incentives will be available only for charging stations dedicated primarily
16 to battery electric buses that are operated by a transit authority within the
17 PECO electric service territory.

⁵ PA DEP defines an Environmental Justice Area as: “any census tract where 20 percent or more individuals live at or below the federal poverty line, and/or 30 percent or more of the population identifies as a non-white minority, based on data from the U.S. Census Bureau and the federal guidelines for poverty.” See <https://www.dep.pa.gov/PublicParticipation/OfficeofEnvironmentalJustice/Pages/PA-Environmental-Justice-Areas.aspx>.

⁶ Charging infrastructure development costs include the purchase and installation of the charging units as well as supporting infrastructure, often referred to in the EV industry as “make ready,” including a transformer pad (if necessary), an electric service panel, junction boxes, conduit, conductor, *etc.*, necessary to connect the EV charging infrastructure to the electric grid.

- 1 • Each charging port must have a capacity of at least 250 kW.
- 2 • The incentive will be paid in installments over a three-year period (2022 –
3 2024) as the customer meets charging station development milestones, and the
4 total Program budget shall be limited to a maximum of \$1,000,000.
- 5 • If a customer site receives a governmental grant toward the construction of
6 and equipment purchases for a charging station, the incentive from PECO
7 shall not exceed the total cost of equipment, installation, and make ready less
8 the value of the governmental grant.
- 9 • Should the Company receive incentive applications in excess of the Program
10 budget, the Company will give priority to those applications which, in the
11 Company's sole discretion, best advance large-scale public transit
12 electrification.
- 13 • A customer receiving the incentive will be required to provide the Company
14 with detailed information for each participating charger over a three-year
15 period, including interval data (kW and kWh) covering charging event
16 duration, site-specific charging load management strategies, and equipment
17 utilization rates.

18 The following chart summarizes the roles and responsibilities in the Transit
19 Charging Program:

PECO Responsibilities	Customer Responsibilities
Collaborate with participating customer to determine location of charging stations and the number and peak load of charging units at each site	Collaborate with PECO to determine location of charging stations and the number and peak load of charging units at each site
Construct line extensions needed to serve the charging station loads consistent with PECO's retail electric tariff	Determine the charging technology, including kW ratings, and develop the site plan for each charging location
Provide incentives to customer to subsidize the purchase and installation of charging units at the charging station(s)	Procure, own, operate, and maintain EV charging units, including make ready infrastructure
Provide electric distribution service to the EV charging units in accordance with the Company's retail electric tariff	Pay for charging station equipment and installation costs (net of PECO incentive) and the cost of operating and maintaining charging stations, including network service fees
	Provide the Company with charging session transactional data for 3 years to enable the company to better understand load profiles and charging patterns and to inform the design of potential future load management programs

1 **10. Q. Please describe the Pilot's L2 Program.**

2 A. Similar to the Transit Charging Program, the L2 Program is designed to address
3 the upfront costs of developing charging sites and help the Company understand
4 the load profile and other implications of commercial and industrial L2 EV
5 charging. Qualifying customers can receive an L2 Program incentive in exchange
6 for providing detailed information for each participating charger over a two-year
7 period, including interval data (kW and kWh) covering charging event duration,
8 site-specific charging load management strategies, and equipment utilization
9 rates. This "real world" data on charging installations will inform future rate
10 design and distribution system planning for the load impacts of TE.

1 The incentive level varies depending upon the location of the charging site as
2 follows:

- 3 • The lesser of \$3,000 per charging port or 75% of make ready costs incurred
4 for sites in an Environmental Justice Area (as designated by the PA DEP at
5 the time of application) within PECO's electric service territory.
- 6 • The lesser of \$2,000 per charging port or 50% of make ready costs incurred
7 for sites at any other location within PECO's electric service territory.

8 The L2 Program will be subject to the following requirements and limitations:

- 9 • The incentives will be available to all applicable classes of commercial and
10 industrial customers (for example, rates GS, HT and PD) for applications
11 including, but not limited to, public charging, fleet charging, bus charging,
12 multi-unit dwelling charging and workplace charging.
- 13 • Each customer is eligible to receive the make-ready incentive for a
14 maximum of 20 ports over the duration of the Pilot.
- 15 • Incentives shall be paid on a first-come first-served basis upon placement of
16 the charging station(s) into service during the years 2022 and 2023, and total
17 Program incentives shall be limited to a maximum of \$250,000 per calendar
18 year. The total L2 Program budget shall be \$575,000, which includes both
19 incentives and administrative costs related to incentive processing and
20 ongoing data collection.
- 21 • If a customer site receives a governmental grant toward the construction of
22 and equipment purchases for a charging station, the incentive from PECO

1 shall not exceed the total cost of equipment, installation, and make ready
 2 less the value of the governmental grant.

3 The following chart summarizes the roles and responsibilities in the L2 Program:

PECO Responsibilities	Customer Responsibilities
Construct any line extensions needed to serve the charging station loads consistent with PECO’s retail electric tariff	Determine location of charging stations and the number and peak load of charging units at each site
Provide incentives to customer to subsidize the make ready costs for the charging station(s)	Determine the charging technology, including kW ratings, and develop the site plan for each charging location
Provide electric distribution service to the EV charging units in accordance with the Company’s retail electric tariff	Procure, own, operate, and maintain EV charging units, including make ready infrastructure
	Pay for charging station equipment costs and the cost of operating and maintaining charging stations, including network service fees
	Provide the Company with charging session transactional data for 2 years to enable the Company to better understand load profiles and charging patterns and to inform the design of potential future load management programs

4 The Company expects the L2 Program will be operational no later than April 1,
 5 2022.

6 **11. Q. How many customers will be able to take advantage of the L2 Program?**

7 A. The number of participating customers will depend on the average incentive
 8 amount and the average number of ports per customer. If the average incentive is
 9 \$2,000 per charging port, that equates to 250 charging ports distributed over 13 to
 10 125 customers. If the average incentive is \$2,500, that equates to 200 charging
 11 ports distributed over 10 to 100 customers.

1 **12. Q. Please describe the Pilot’s Electric Vehicle Education and Outreach**
2 **Program.**

3 A. PECO is proposing to conduct proactive EV education and outreach to increase
4 customer knowledge of the Company’s EV offerings including the EV Toolkit,
5 the EV-FC Rider, the EV registration incentive, the L2 Program, and the Transit
6 Charging Program. The awareness campaign will utilize a variety of
7 communication channels including, but not limited to, bill inserts, email, social
8 media, website updates, and printed materials.

9 **13. Q. What are the projected costs related to the Pilot?**

10 A. The table below provides detail regarding projected costs of the Pilot.

Projected Pilot Costs			
[A]	Transit Charging Program	<i>Expense</i>	\$1,000,000
[B]	L2 Program – incentives	<i>Expense</i>	\$500,000
[C]	L2 Program – administration	<i>Expense</i>	\$75,000
[D]	EV Education and Outreach Program	<i>Expense</i>	\$50,000
	TOTAL		\$1,625,000

11 **14. Q. How does the Company plan to recover these Pilot costs?**

12 A. The Company is proposing to recover Pilot costs through base distribution rates as
13 demonstrated in PECO Exhibit MJT-1, Schedule D-15, which is sponsored by
14 Company witness Michael J. Trzaska (PECO Statement No. 3). The cost of the
15 Transit Charging Program and EV Education and Outreach would be recovered
16 from all customer classes while L2 Program costs would be recovered from
17 commercial and industrial customer classes only.

1 **III. SMALL BUSINESS RECOVERY PROGRAM**

2 **15. Q. Please describe the Company’s proposed Small Business Recovery Program.**

3 A. PECO understands that some small businesses in the Philadelphia area are still
4 struggling with the economic impact of the COVID-19 pandemic. PECO also
5 understands that small businesses provide services that are critically important in
6 low-income communities and are part of the fabric of those communities. In
7 order to support small businesses continuing to provide services in low-income
8 communities, PECO is proposing to implement a Small Business Recovery
9 Program. Under the Program, small business customers in low-income
10 communities can receive a one-time grant of \$3,000 to be applied as a credit on
11 the customer’s existing electric account. The grant could be applied to either
12 existing arrearages or future electric bills.

13 **16. Q. What are the eligibility requirements for the Program?**

14 A. To be eligible for a grant, the small business must:

15 (1) Be an existing PECO electric customer (i.e. have a PECO account in the name
16 of the business) taking service under Rate GS;

17 (2) Have a monthly billing demand of less than 100 kW;

18 (3) Be located (i.e., have its service address) in a low-income community as
19 defined by the U.S. Department of Treasury’s Community Development Financial
20 Institutions Fund; and

21 (4) Demonstrate COVID-related hardship as shown by the following:

- 1 a. The customer was not in arrears as of March 1, 2020;
- 2 b. The customer developed a past due balance between March 1,
3 2020 and March 31, 2021; and
- 4 c. The customer remains past due at the time of application for the
5 grant.

6 When awarding grants to qualifying small businesses, preference will be given to
7 grant applications from minority and women-owned businesses.

8 **17. Q. How will the Company educate customers about the Program?**

9 A. PECO will issue a proactive communication to small commercial and industrial
10 customers on Rate GS in low-income communities once the Program is approved
11 and ready to be launched. Program information will also be published on the
12 Company’s website and shared with community and economic development
13 partners in the region. PECO plans to have a 90-day grant application acceptance
14 window in 2022.

15 **18. Q. What are the projected costs related to the Program?**

16 A. The total budget for the Program is \$1,000,000, which is estimated to include
17 \$950,000 for grants and \$50,000 for administrative costs. PECO plans to initiate
18 the Program in 2021 with a budget of \$100,000. This will allow application and
19 implementation processes to be developed and piloted in 2021. If PECO receives
20 approval of the Program in this proceeding, the Company would spend an
21 additional \$900,000 in 2022.

1 **19. Q. How does the Company plan to recover these Program costs?**

2 A. The Company is proposing to recover \$900,000 in Program costs from Rate GS
3 customers over a three-year period (2022 – 2024), as demonstrated in PECO
4 Exhibit MJT-1, Schedule D-15. PECO is not seeking recovery for Program
5 expenditures made in 2021.

6 **20. Q. How many small business customers would receive grants under the**
7 **Program?**

8 A. With a \$950,000 incentive budget, PECO could provide \$3,000 grants to up to
9 316 qualifying small business customers.

10 **21. Q. What if all grant funds are not utilized after the initial application period?**

11 A. PECO will open a second application period, which would remain open until all
12 grant funds have been allocated.

13 **IV. CONCLUSION**

14 **22. Q. Does this conclude your direct testimony at this time?**

15 A. Yes, it does.

16