

COMMONWEALTH OF PENNSYLVANIA



OFFICE OF CONSUMER ADVOCATE

555 Walnut Street, 5th Floor, Forum Place
Harrisburg, Pennsylvania 17101-1923
(717) 783-5048
800-684-6560

FAX (717) 783-7152
consumer@paoca.org

August 22, 2017

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Commonwealth Keystone Bldg.
400 North Street
Harrisburg, PA 17120

Re: Third Party Electric Vehicle Charging
Resale/Redistribution of Utility
Service
Docket No. M-2017-2604382

Dear Secretary Chiavetta:

Attached for electronic filing please find the Office of Consumer Advocate's Comments in the above-referenced proceeding.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Harrison W. Breitman", written over a horizontal line.

Harrison W Breitman
Assistant Consumer Advocate
PA Attorney I.D. # 320580
E-Mail: HBreitman@paoca.org

Attachment

cc: Electric Distribution Companies
Office of the Small Business Advocate
Pennsylvania Public Utility Commission's Bureau of Investigation and Enforcement
Energy Association of Pennsylvania
Office of Attorney General's Bureau of Consumer Protection
Pennsylvania Department of Environmental Protection's Office of Policy

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Third Party Electric Vehicle Charging :
Resale/Redistribution of Utility Service : Docket No. M-2017-2604382

COMMENTS OF THE
OFFICE OF CONSUMER ADVOCATE

Harrison W. Breitman
Assistant Consumer Advocate
PA Attorney I.D. # 320580
E-Mail: HBreitman@paoca.org

Counsel for:
Tanya J. McCloskey
Acting Consumer Advocate

Office of Consumer Advocate
555 Walnut Street, 5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 783-7152

August 22, 2017

TABLE OF CONTENTS

I. INTRODUCTION AND LEGAL BACKGROUND	1
II. COMMENTS.....	8
A. Introduction.....	8
B. The OCA’s Response To: What restrictions, if any, each EDC’s existing tariff establishes on the resale/redistribution of utility service for third-party electric vehicle charging.....	12
C. The OCA’s Response To: The benefits and detriments of specific tariff provisions permitting unrestricted resale/redistribution of utility service when done for the purpose of third-party electric vehicle charging.	13
D. The OCA’s Response To: The appropriateness, or lack thereof, of encouraging EDCs across the state to move toward a tariff design, such as Duquesne’s, which includes provisions for third-party electric vehicle charging resale/redistribution.....	15
E. The OCA’s Response To: What other resale/redistribution tariff provision designs may aid in establishing clear rules for third-party electric vehicle charging stations.....	15
F. The OCA’s Response To: What other regulatory options may aid in establishing clear resale/redistribution rules for third-party electric vehicle charging stations.....	16
III. CONCLUSION.....	18

I. INTRODUCTION AND LEGAL BACKGROUND

In accordance with the Motion of Chairman Gladys Brown at the Public Meeting held on May 18, 2017, the Pennsylvania Public Utility Commission (“PUC” or “Commission”) issued a Secretarial Letter seeking comments from all interested parties regarding tariff provisions of electric distribution companies (“EDCs”) concerning the resale/redistribution of electric power to third-party public EV charging stations. *See*, 47 Pa.B. 3790. The Secretarial Letter is published in the Pennsylvania Bulletin and requests Comments by August 22, 2017. *Id.* Specifically, the Commission seeks comments in regard to how EDC tariff provisions may affect the operation and viability of public third-party Electric Vehicle (“EV”) charging stations. *Id.*

The Secretarial Letter states as follows:

EV charging station owners purchase electric power from an EDC and resell it to EV drivers. As with any other commercial activity, EV charging stations can exist only if the owners are able to earn a profit on the business. However, in this Commonwealth, independent owners of EV charging stations may face resale/redistribution restrictions from: (1) 66 PA.C.S (relating to Public Utility Code), see 66 Pa.C.S. § 1313 (relating to price upon resale of public utility services); and (2) the EDCs resale/redistribution tariff provisions.

Id. The Commission requests comments on these issues to determine the steps necessary to foster third-party EV charging station development. The OCA directly responds to each of the Commission’s five questions in Section II of these comments.

The OCA commends the Commission on its initiative to foster the developing market for public, third-party EV charging stations. As the Commission notes in its Secretarial Letter, the number of EVs in Pennsylvania has steadily increased and the evidence indicates that the number of EVs purchased throughout the country will continue to grow. *See*, 47 Pa.B. 3790. While most EV charging currently occurs at home or at work, the Secretarial Letter explains that there are currently 723 publically-available EV charging stations in Pennsylvania. As the Keystone

State, with many transportation corridors, the Commission has correctly recognized the importance of having the proper tariff structures in place to support the development of third-party public EV charging stations within Pennsylvania. The Commission's inquiry is even more timely in light of the recent Volkswagen Settlement and its corresponding Zero Emission Vehicle Investment. Volkswagen will invest \$800 million in California and \$1.2 billion throughout the rest of the country towards EV charging infrastructure.¹

By way of background, an EV Charging Station ("EVSE") is the equipment, including hardware and software, which is used to charge an electric vehicle. The OCA will discuss, in greater detail below, the various types of EV batteries and charging equipment available in this developing market. As a general matter, a public EV charging station allows a driver to connect an EV's battery to a charger that uses electricity to recharge the vehicle's battery. The question presented by the Secretarial Letter is whether this constitutes the resale or redistribution of electricity under an EDC's tariff, and if so, whether Section 1313 of the Public Utility Code would apply. The Secretarial Letter notes that the tariffs of most EDCs allow power to be resold under limited circumstances, but require that rates upon resale be consistent with 66 Pa. C.S. § 1313. *See*, 47 Pa.B. 3790. Section 1313 of Title 66 discusses the restriction on reselling in the context of public utility services as follows:

Price upon resale of public utility services – Whenever any person, corporation, or other entity, not a public utility, electric cooperative corporation, municipality authority or municipal corporation, purchases service from a public utility and resells it to consumers, the bill rendered by the reseller to any residential consumer shall not exceed the amount which the public utility would bill its own residential consumers for the same quantity of service under the residential rate of its tariff then currently in effect.

¹ U.S. Environmental Protection Agency, *Volkswagen Clean Air Act Civil Settlement*, available at <https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement> (accessed on Aug. 16, 2017).

66 Pa.C.S. § 1313. The Secretarial letter discusses Duquesne Light Company's ("Duquesne") tariff. Duquesne's tariff exempts third-party EV charging businesses from the definition of resale under section 1313. As stated in the Secretarial Letter:

Duquesne does not consider the operation of EV charging stations to fall within the meaning of resale/redistribution, so stations in Duquesne's service territory can operate without restrictions from 66 Pa.C.S. § 1313 or Duquesne's tariff. Duquesne has stated that its resale/redistribution tariff provisions are meant to protect its residential electric customers from being charged rates in excess of those in its tariff (for example, by a landlord in a multiunit building with a single meter), not to prohibit an EV charging station from providing service to third parties.

47 Pa.B. 3790.

The OCA submits that the heart of the question presented by the Commission about public, third-party EV charging stations is "what is being sold?" and "who is it being sold to?"² According to the OCA's understanding of Section 1313 of the Public Utility Code, the Section is intended to prohibit the resale of electricity to a residential consumer above the amount that a public utility would bill its own residential consumer for the same quantity of service under its residential rate. 66 Pa.C.S. § 1313. Section 1313 specifically references residential consumers when setting forth its limitations. By way of example, a residential customer is defined in Duquesne's tariff as follows:

A residential customer is a natural person in whose name a residential service account is listed and who is primarily responsible for payment of bills rendered for the service or any adult occupant whose name appears on the mortgage, deed or lease of the property of which the residential utility service is requested. The term includes a person who, within thirty (30) days after service termination or discontinuance of service, seeks to have service reconnected at the same location or transferred to another location within the service territory of the public utility.

Supplement No. 159 to Electric Pa. P.U.C. No. 24 at 3.1(8).

² As the OCA understands the Secretarial Letter, the Commission is examining the tariff provisions related to third party ownership of EV charging stations. Therefore, the OCA is directly addressing third party ownership of EV charging stations. The OCA is not addressing utility ownership of EV charging stations in these comments.

In Duquesne's tariff, the technical description of Rate RS-Residential Service states as follows:

Available only when supplied at 240 volt (or less) single phase service through a single meter directly by the Company to a single family dwelling or to an individual dwelling unit in a multiple dwelling structure. For the purposes of this rate, a dwelling unit is defined as one or more rooms arranged for the use of one or more individuals for shelter, sleeping, dining, and with permanent provisions for cooking and sanitation.

Id. at 32.

As can be seen from the tariff sections listed above, typically in Pennsylvania, a residential consumer is a consumer being served by an EDC at their residence or dwelling unit. Furthermore, when an EDC provides electric utility distribution service to a residential consumer, the EDC is providing the service to a residence in a geographically specific service territory. When a consumer is no longer receiving service at the residence and instead receives service at a public location, it is unclear whether the requirements of Section 1313 applies.³

In regards to what is being sold when a third-party EV charging operator bills a customer, the OCA submits that EV charging stations offer a bundled service. Throughout the country, State Commissions that have considered the question of public EV charging stations have held that such services do not constitute the resale of electricity. Massachusetts's Department of Public Utilities stated as follows:

While the Department has held that entities engaged in the resale of electricity to retail customers -- a practice known as submetering -- are electric companies subject to the jurisdiction of the Department, our submetering cases apply to the

³ The OCA notes that there may be an important distinction between a private third-party charging service and a publically available third-party charging service. An example of a third-party charging service that is not available to the public is EVSE attached to an apartment building. An apartment building may attempt to attract EV drivers as tenants by offering EV charging exclusively to its private residents. On the other hand, a publically available third-party charging station holds itself out to the public as an EV charging service accessible to the general public. A publically available third-party EV charging service would be something such as a convenience store offering EV charging in its parking lot. The OCA's comments only address publically available third-party EV charging stations.

re-sale of electricity, not the sale of a service. Thus, they are not applicable to the EV charging service transaction.

Investigation by the Department of Public Utilities upon its own Motion into Electric Vehicles and Electric Vehicle Charging, D.P. U. 13-182-A (Aug. 4, 2014) at 8.

The Massachusetts Department of Public Utilities further stated:

We find that an EVSE owner or operator is not selling electricity within the meaning of Chapter 164. Rather, the EVSE owner or operator is selling EV charging services, i.e., the use of specialized equipment -- EVSE -- for the purpose of charging an EV battery. EVSE allows the customer do to only one thing, charge an EV battery. This result is true regardless of the business model the EVSE owner/operator uses to charge customers for charging services, even if the charge is by a per-kilowatt hour basis or other volumetric energy basis.

Id. at 7.

Hawaii's Public Utility Commission recently maintained a previous order regarding EVSE.⁴ The Hawaii Commission stated as follows:

The commission, likewise, approves as just and reasonable the HECO Companies' request to amend their existing Tariff Rule 15.B to clarify that the tariff rule which prohibits an electric utility customer from reselling electric energy to another person, does not apply to the resale of such energy for use solely as a motor fuel for light duty plug-in electric vehicles.

In the Matter of the Application of Hawaiian Electric Co. Inc., 2013 Haw. PUC LEXIS 279, *45

Missouri's Public Utility Commission recently ordered an EDC to revise its tariff in order to clarify that EV charging stations are not included in the definition of resale as follows:

KCPL shall file an amended tariff to revise the existing prohibition on the resale of electricity in order to clarify that EV charging stations are not reselling electricity.

Re Kansas City Power & Light Company, File No. ER-2016-0285 Tariff Nos. YE-2017-004 and YE-2017-0005, 337 PUR4th 1 at 25 (effective May 13, 2017).

⁴ *Re Hawaiian Electric Co., Inc. et al.*, Docket No. 2016-0168, Decision & Order No. 34592, June 2, 2017 (Hawaii P.U.C.).

The New York Public Service Commission reached a similar conclusion and stated as follows:

Charging Stations do not fall within the definition of ‘electric plant’ because Charging Stations are not used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity for light heat or power. Instead, and as urged by several commenters, Charging Stations are used to provide a service, specifically, charging services.”

See, In the Matter of Electric Vehicle Policies, N.Y.P.S.C. 13-E-1099, at 4 (November 14, 2013).

EV chargers convert electricity into useable transportation fuel for EVs. The specialized equipment utilized in EV charging only serves one purpose: charging an EV’s battery. As noted by the New York Public Service Commission:

The primary purpose of the transaction between Charging Station owners/operators and members of the public is the purchase of this service and the use of this specialized equipment. While the customer is using electricity, this is incidental to the transaction.

Id.

One example that is comparable to a public, third-party EV charger is a laundromat.⁵ The Arcadia Center and Conservation Law Foundation filed comments to the New Hampshire Public Utilities Commission that discusses the analogy between EV charging stations and Laundromats as follows:

In both transactions, the marginal cost to the seller is primarily electricity and both involve a non-trivial investment of capital. In both cases, a consumer can choose which laundromat or EVSE to visit and will have the opportunity to install comparable equipment in their residence. In both cases, the energy can only be used for one particular purpose, not the multi-purpose use of electricity used in homes and businesses. These factors can all easily distinguish EVSE from any

⁵ Another transportation-related service that is similar to EV charging stations is the sale of compressed air. Air is a freely available commodity. Yet, when a vehicle’s tires require inflation, the compression of air by an air compression station provides a valuable service for transportation customers. Some third-party commercial enterprises, such as Sheetz, offers compressed air as a free amenity to attract customers. Other third-parties charge a fee for use of a compressed air station. An air compressor station, however, is not the resale of air. Instead, air compressor stations offer a valuable transportation service that transforms a more basic commodity, air, into a compressed form for the purpose of inflating tires.

policies regarding resale and submetering. In addition, a determination that EVSE owners and operators are selling electricity would only cover EVSE-related commercial transactions and not EVSE where vehicle owners charge for free.

Arcadia Center and Conservation Law Foundation Joint Comments Before The State of New Hampshire Public Utilities Commission, Docket No. IR 15-510 (Entered on Jan. 22, 2016) at 2.

Missouri's Public Utility Commission recently adopted the laundromat analogy and stated as follows:

By analogy, a laundromat uses electricity to provide clothes drying services, but that does not mean the laundromat's dryers are electric plant or that the laundromat should be regulated by the Commission. EV charging stations are not 'electric plant' and, therefore, the Commission lacks statutory authority to regulate their operation.

To rule otherwise would conceivably assert jurisdiction over other similar battery-charging services. Some examples would be smart phone charging stations or kiosks, RV parks that allow vehicles to connect to the park's electric supply, or airports that connect planes to a hangar's electricity supply while parked, which the Missouri General Assembly could not have intended.

*Re Kansas City Power & Light Company, File No. ER-2016-0285 Tariff Nos. YE-2017-004 and YE-2017-0005, 337 PUR4th 1 at 25 (effective May 13, 2017).*⁶

A review by the OCA found other states where the legislatures and/or public utility commissions have determined that charging stations operate "for the sole purpose of providing electricity as a transportation fuel."⁷ The distinction made between electricity as transportation

⁶ Similarly, cell phone charging kiosks provide a battery charging service and have not been considered resale/redistribution of electric service. Companies such as Smarte Carte provide rapid charge cell phone charging kiosks and charges its customers \$3 to plug in their cell phone or PDA and get up to a 50% battery charge. Smarte Carte, *Smarte Carte's Rapid Charge Cell Phone Charging Kiosk Takes Off at Airports*, available at <https://www.smartecarte.com/press/march-2006-smarte-cartes-rapid-charge-cell-phone-charging-kiosk-takes-off-at-airports/> (last accessed on July 12, 2017). There is little to distinguish these battery charging services from EV chargers. If one battery charging service is construed as reselling/redistributing electricity to retail consumers, then other battery charging services may fall within regulatory control as well.

⁷ The E.V. Project, *Lessons Learned – The EV Project Regulatory Issues and Utility EV Rates*, ECotality North America (Mar. 14, 2013), <http://www.theevproject.com/cms-assets/documents/103425-835189.ri-2.pdf> at 4. The states noted are California, Colorado, Florida, Hawaii, Illinois, Maryland, Minnesota, Oregon, Virginia, and Washington.

fuel and electricity as an essential public utility service is an important distinction that may place public third-party EV charging station service outside of the Commission's purview. The technical infrastructure traditionally utilized to provide essential utility service to consumers will now also be utilized to provide EVSE with electricity, which will be converted into transportation fuel for the growing EV market. While not specifically raised as a question by the Commission, this distinction raises an issue regarding the pricing of such a service offered in a developing competitive market not subject to regulatory oversight by the Commission. As discussed at greater length in response to Question 5 below, the Commission and interested parties may wish to work collaboratively to develop clear rules for the road.

The Secretarial Letter specified that comments would be due in 90 days from the date the letter appeared in the Pennsylvania Bulletin, or on or before August 22, 2017. In accord with the Secretarial Letter, the OCA provides the following comments and direct responses to the questions posed by the Commission. The OCA again thanks the Commission for its initiative in regards to this developing market and looks forward to working with all interested stakeholders to facilitate the development of publically available third-party EV charging stations.

II. COMMENTS

A. Introduction

There are two basic types of EVs: Battery Electric Vehicles/All-Electric Vehicles ("BEV"), and Hybrid Electric Vehicles ("HEV").⁸ BEVs can only be powered by the vehicle's battery pack.⁹ Examples of BEVs include the Nissan LEAF and Tesla Model S.¹⁰

⁸ U.S. Department of Energy, *Alternative Fuels Data Center*, <http://www.afdc.energy.gov/vehicles/electric.html>

⁹ Nick Nigro and Matt Frades, Center For Climate and Energy Solutions, *Business Models For Financially Sustainable EV Charging Networks* (March 2015) at 4, available at: <https://www.c2es.org/docUploads/business-models-ev-charging-infrastructure-03-15.pdf> (accessed on Aug. 18, 2017).

¹⁰ *Id.*

HEVs are BEVs with an internal backup combustion engine powered by gasoline, biofuel, or other range extender.¹¹ HEVs have an elective and conventional drivetrain and contain a larger battery pack that can be recharged.¹² The flexibility offered by an HEV's gas engine enables it to travel more easily without the need to recharge the vehicle's battery.¹³ HEVs, however, typically have less than 40 miles of all-electric range, decreasing their share of electric miles on longer trips unless the batteries are recharged.¹⁴ An example of an HEV is the Toyota Prius Plug-in model.¹⁵

The range of EV batteries are consistently improving year-over-year. Many BEVs currently available can only travel 100 miles or less on a single charge.¹⁶ This fact, however, is undergoing dramatic change as newer and more efficient BEVs enter the market. For example, the 2017 Chevy Bolt BEV has an EPA-estimated range of 238 miles.¹⁷ Tesla's Model 3 BEV, which is currently being produced and sold, has a range of 215 miles per charge and costs \$35,000 before incentives.¹⁸ Samsung announced in January 2017 that their new battery cell designed for EVs offers a maximum range of 372 miles on a full charge and a charge time of 20 minutes.¹⁹ In comparison, Tesla's superchargers provide around 170 miles of range on a half-hour charge utilizing Tesla's proprietary supercharger technology.²⁰

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ Chevrolet.com, *Bolt EV*, available at <http://www.chevrolet.com/bolt-ev-electric-vehicle> (accessed on Aug. 14, 2017).

¹⁸ Tesla, *Model 3*, <https://www.tesla.com/model3> (accessed on July 21, 2017).

¹⁹ Techcrunch, *Next-gen Samsung EV battery gets 300+ miles of range from a 20-minute charge*, <https://techcrunch.com/2017/01/09/next-gen-samsung-ev-battery-gets-300-miles-of-range-from-a-20-minute-charge/> (Jan 9, 2017).

²⁰ *Id.*

An EV can recharge at three power levels in increasing order: AC Level 1, AC Level 2, and DC fast charging.²¹ Level 1 chargers are typically located in homes and have power levels up to 1.4 kW.²² Level 2 chargers have power levels up to 19.2 kW, but more typically offer charging at 3.3 kW or 6.6 kW.²³ Level 2 stations are often located where drivers are expected to spend several hours, such as retail outlets, public parking locations, and recreational areas.²⁴ Recharging a typical EV takes 3.5 to 7 hours with level 2 charging.²⁵ The cost of charging equipment and installation varies, but typically costs about \$6,500 for public chargers and less than \$2,000 for home chargers.²⁶

DC fast charging can provide power levels of up to 90 kW but charging stations typically only provide power at a rate of up to 50 kW.²⁷ DC fast charging recharges the EV's battery in a similar timeframe as refueling a conventional vehicle.²⁸ DC fast charging is intended to enable long distance EV travel to accommodate EVs without access to convenient daily charging at home or the workplace.²⁹ DC charging stations are located where drivers are expected to spend a short period of time, similar to a gas station.³⁰ DC charging equipment and installation can cost over \$90,000.³¹

All EVs currently on the market can accept a Level 2 charge because they are currently equipped with a common connector, the Society of Automotive Engineers (“SAE”) J1772, which

²¹ Nick Nigro and Matt Frades, Center For Climate and Energy Solutions, *Business Models For Financially Sustainable EV Charging Networks* (March 2015) at 7.

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.*

will fit a plug from a Level 2 charging station.³² DC fast chargers, however, do not work with all EVs due to competing technologies among manufacturers.³³

There are three types of DC fast chargers, each utilizing a unique plug designed for a specific make of EV.³⁴ CHAdeMO was developed by Japanese companies and is used by Japanese auto manufacturers such as Nissan and Mitsubishi.³⁵ CHAdeMO cars require two charging ports -- one for slow and one for fast charging.³⁶ SAE J1772 Combo was developed by the SAE in conjunction with the J1772 connector standard used for Level 2 charging and is used by most American and European automakers.³⁷ The SAE Combo plug is designed so those cars can have just one port, with the fast-charging plug connecting to the same outlet as slower chargers.³⁸ Furthermore, Tesla has a proprietary “supercharger” technology that is currently only compatible with Tesla vehicles.³⁹ While charging stations can include more than one DC fast charging port, only Tesla enables more than one vehicle to charge at once.⁴⁰ Tesla has more than 2,600 chargepoints in North America spread across 370 sites.⁴¹ Tesla plans to double its fast charging stations in North America by the end of 2017.⁴²

Currently, more than 80% of EV charging occurs at home and when EV drivers are able to charge their EV at their workplace, 98% of charging events were performed either at home or

³² *Id.*

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ Ariel Wittenberg, E&E News, *Need a fast charge? The nearest plug may not fit* (Aug. 1, 2016).

³⁷ Nick Nigro and Matt Frades, Center For Climate and Energy Solutions, *Business Models For Financially Sustainable EV Charging Networks* (March 2015) at 7.

³⁸ Ariel Wittenberg, E&E News, *Need a fast charge? The nearest plug may not fit* (Aug. 1, 2016).

³⁹ Nick Nigro and Matt Frades, Center For Climate and Energy Solutions, *Business Models For Financially Sustainable EV Charging Networks* (March 2015) at 7.

⁴⁰ *Id.* at 10.

⁴¹ Utility Dive, *Tesla Wants to Double Fast Charging Stations In North America By the End Of 2017*, <http://www.utilitydive.com/news/tesla-wants-to-double-fast-charging-stations-in-north-america-by-end-of-201/437243/> (Mar. 2, 2017).

⁴² Utility Dive, *Tesla Wants to Double Fast Charging Stations In North America By the End Of 2017*, <http://www.utilitydive.com/news/tesla-wants-to-double-fast-charging-stations-in-north-america-by-end-of-201/437243/> (Mar. 2, 2017).

at work on work days.⁴³ Currently, only about 8-11% of EV charging was performed away from home.⁴⁴ The OCA would note, however, that charging technology is progressing rapidly in the short-term and battery range for electric vehicles continues to improve. Public EV charging infrastructure will change as older technology becomes obsolete. Indeed, EV chargers are already adopting wireless technology that could potentially render the current wired EV chargers obsolete.⁴⁵

The end-use of charging stations represent a bundled service that includes components such as fees for the use of equipment, the billing service associated with the facility, the technology offered through the EV charger (including hardware and software), the real estate upon which the facility is located, maintenance service on the equipment, and the cost of the electric commodity. Although EV charging equipment outputs electricity, the equipment is not designed to provide electric utility service. As other states discussed above have concluded, EV charging equipment provides transportation fuel to mobile customers who may be from another EDC's service territory, another state, or even another country.

With this background, the OCA directly responds to the specific questions posed in the Secretarial Letter below.

B. The OCA's Response To: What restrictions, if any, each EDC's existing tariff establishes on the resale/redistribution of utility service for third-party electric vehicle charging.

⁴³ Idaho National Laboratory, *Plugged In: How Americans Charge Their Electric Vehicles Findings From The Largest Plug-In Electric Vehicle Infrastructure Demonstration in the World*, <https://avt.inl.gov/sites/default/files/pdf/arra/SummaryReport.pdf> (accessed on July 24, 2017) at 8-11.

⁴⁴ Id.

⁴⁵ For example, Plugless uses an inductive charging technology to eliminate the need to plug in the EV. With Plugless, two aligned magnetic coils send power to an electric vehicle over a gap of air between the EV and the wireless charging station. Plugless claims that this type of EV charging is also better for the EV and that Plugless' wireless charging protects battery health and reduces wear and tear. This technology is already available at retail to the public. See, Plugless, *Learn About Plugless*, <https://www.pluglesspower.com/learn-about-plugless/> (accessed on July 20, 2017); see also, Plugless, *Shop*, <https://www.pluglesspower.com/shop/> (accessed on July 20, 2017).

Resale/redistribution tariff provisions are not standardized among Pennsylvania's EDCs. A review of electric utility tariffs demonstrates that when an electric utility specifically identifies the sale for resale of electricity, it is in the context of persons stepping into the shoes of a regulated utility. Duquesne's tariff is the only tariff in the Commonwealth that mentions EV charging and specifically exempts EV charging from the definition of redistribution or resale of electricity. In addition, several utilities do not have tariff provisions addressing the resale of electricity. A summary of tariff provisions concerning the resale of electricity is attached as Appendix A. As noted in the Secretarial Letter, some of the EDC tariffs, including the four First Energy EDCs, do not include any provisions regarding the resale of electricity.⁴⁶ As illustrated in Appendix A and in the Secretarial Letter, the tariffs of some EDCs allow electricity to be resold under limited circumstances, but the resale must comply with 66 Pa.C.S. § 1313.⁴⁷ The tariff language reviewed by the OCA pre-dates EV charging station development and is tailored to the concerns of 66 Pa.C.S. § 1313.

C. The OCA's Response To: The benefits and detriments of specific tariff provisions permitting unrestricted resale/redistribution of utility service when done for the purpose of third-party electric vehicle charging.

As can be seen from the existing sale/resale tariff provisions provided in Appendix A, besides Duquesne, Pennsylvania EDCs do not specifically address EV charging in their tariffs. As noted in the Secretarial Letter, third-party EV charging businesses could arguably be violating Section 1313 of Title 66 if EV charging is considered to be electricity

⁴⁶ PA PUC, PA. Bulletin, Doc. No. 17-1146, *Third Party Electric Vehicle Charging—Resale/Redistribution of Utility Service* (July 8, 2017).

⁴⁷ *Id.*

resale/redistribution to residential customers and the EV charging business charges its residential customers more than the residential rate specified in the EDC's tariff. As discussed above in Section I, the OCA's perspective is that public third-party EV charging stations would not constitute a resale of electricity by a residential consumer. As discussed in Section I, legislatures and public utility commissions in other states have determined that the third-party EV charging stations operate for the purpose of providing electricity as a transportation fuel.⁴⁸

The OCA has found that some EV charging stations charge for EV charging on a kilowatt hour (kWh) basis, which may be one reason why some consider commercial EV charging to fall under the definition of electricity resale.⁴⁹ The benefit of a specific tariff provision for the purpose of third-party electric vehicle charging is that it would provide clarity by clearing up any ambiguity for those engaged in the third-party commercial EV charging business regarding resale/redistribution concerns.

A detriment of a tariff provisions permitting unrestricted resale/redistribution of utility service for the purposes of third party charging not being uniform across all EDCs, is that the lack of uniformity could lead to confusion. For example, if Duquesne's tariff specifically exempts EV charging by third-parties from the definition of resale/redistribution and PECO's tariff does not, would a third-party EV charger operating in PECO's Philadelphia region technically be reselling or redistributing electricity?

⁴⁸ The E.V. Project, *Lessons Learned – The EV Project Regulatory Issues and Utility EV Rates*, ECOTality North America (Mar. 14, 2013), <http://www.theevproject.com/cms-assets/documents/103425-835189.ri-2.pdf> at 4. The states noted are California, Colorado, Florida, Hawaii, Illinois, Maryland, Minnesota, Oregon, Virginia, and Washington; see also *Investigation by the Department of Public Utilities upon its own Motion into Electric Vehicles and Electric Vehicle Charging*, D.P. U. 13-182-A (Aug. 4, 2014) at 8; *Re Kansas City Power & Light Company*, File No. ER-2016-0285 Tariff Nos. YE-2017-004 and YE-2017-0005, 337 PUR4th 1 at 25 (effective May 13, 2017); *In the Matter of Electric Vehicle Policies*, N.Y.P.S.C. 13-E-1099, at 4 (Nov. 14, 2013).

⁴⁹ An alternative to charging on a kWh basis is charging on a temporal basis. For example, requiring a payment of \$1.00 for every 5 minutes of charging. See e.g., Plugshare.com, *Sheetz 4001 Union Deposit Road*, available at: <https://api.plugshare.com/view/location/45251> (accessed on July 28, 2017).

The OCA submits that EDC tariff language and rules are typically analyzed on a case-by-case basis. Encouraging utilities to adopt uniform clarifying tariff language regarding the definition of “resale” would eliminate any ambiguity for the competitive third-party EV charging business. A Policy Statement could also provide guidance for utilities and could potentially eliminate the need for a uniform tariff provisions or any tariff provisions.

- D. The OCA’s Response To: The appropriateness, or lack thereof, of encouraging EDCs across the state to move toward a tariff design, such as Duquesne’s, which includes provisions for third-party electric vehicle charging resale/redistribution.

The OCA’s perspective is that it is appropriate to encourage EDCs to revise their tariffs in order to ensure an orderly development of publically available third-party EV charging stations.

- E. The OCA’s Response To: What other resale/redistribution tariff provision designs may aid in establishing clear rules for third-party electric vehicle charging stations.

From a distribution service perspective, EV chargers are end-use devices that are installed by customers either in their home or at their place of business. Publically available third-party EV chargers are typically available in parking lots, such as convenience store lots, that are generally accessible to the public. These commercial establishment customers are governed by Commission-approved tariffs and service policies. With respect to rates charged to EV charging stations, the Commission will continue to have the same oversight and approval authority over EDC rates, terms and conditions, and customer service requirements of the EDCs as it presently does as the electric utility service is provided to the commercial entity providing the EV charging station.

A Commission-encouraged tariff provision, which could be similar to the tariff provision contained in Duquesne's tariff, would provide clarity regarding whether resale restrictions apply to third-party EV charging stations. Moreover, the OCA submits that public utilities may want to consider technical tariff provisions to govern safety and reliability for third-party EV charging stations.

F. The OCA's Response To: What other regulatory options may aid in establishing clear resale/redistribution rules for third-party electric vehicle charging stations.

The OCA agrees with the Commission that tariff language addressing third-party EV charging stations could provide guidance and clarity for this emerging industry and the public utilities providing electricity to the EV charging stations. The OCA further submits that a policy statement could also provide guidance for utilities and third-party providers of EV charging services. As explained previously by the Commission:

[A] policy statement is intended to provide guidance regarding the policy the agency intends to implement in future adjudications. And, unlike a regulation, it is not enforceable and has no binding effect on the agency, or on anyone else.

Petition of Philadelphia Gas Works for a Statement of Policy on the Application of Philadelphia Gas Works' Cash Flow Ratemaking Method, 2010 Pa. PUC LEXIS 777, *14 (Pa. P.U.C. Apr. 19, 2010).

The Commission further stated that "the Commission is not establishing a binding norm when it issues a policy statement." *Id.* at *16. Moreover, the Commission acknowledged that "the issuance of a final policy statement will reduce the likelihood of future litigation." *Id.*

The Pennsylvania Supreme Court discussed policy statements as follows:

An administrative agency has available two methods for formulating policy that will have the force of law. An agency may establish binding policy through rulemaking procedures by which it promulgates substantive rules, or through

adjudications which constitute binding precedents. A general statement of policy is the outcome of neither a rulemaking nor an adjudication; [*350] it is neither a rule nor a precedent but is merely an announcement to the public of the policy which the agency hopes to implement in future rulemakings or adjudications. A general statement of policy, like a press release, presages an upcoming rulemaking or announces the course which the agency intends to follow in future adjudications.

Pa. Human Relations Com. v. Norristown Area Sch. Dist., 473 Pa. 334, 349-50, 374 A.2d 671, 679 (1977) (internal citations omitted).

The OCA submits that a policy statement could provide improved clarity surrounding the definition of resale/redistribution without requiring a lengthy rulemaking proceeding or adjudication and will mitigate the likelihood of any potential future litigation. Since a policy statement does not constitute a binding precedent, the Commission would also have the ability to revisit any determinations regarding public third-party EV charging stations should the nature of public third-party EV charging businesses change. The OCA submits that a straight-forward policy statement would aid in clarifying any purported ambiguity between EV charging stations and the resale/redistribution of electricity.

As mentioned in Section I above, it is the OCA's view that if public third-party EV charging stations do not constitute the resale of electricity under Section 1313. This, however, may place the pricing of third-party public charging stations outside the purview of the Commission. This raises a question as to how to ensure fair pricing to the transportation public, particularly as the market is not fully developed in these early stages and lacks extensive competitive choice. The Commission may wish to work with other agencies and the General Assembly to ensure that there is no regulatory or oversight gap, disparity, or inconsistency.

One measure that could be considered is a requirement for the clear and conspicuous posting of EV charging prices by operators of third-party public EV charging stations similar to

the manner in which gasoline fuel prices are clearly posted at gas stations in the Commonwealth. Gas stations are required to clearly post their prices in Pennsylvania.⁵⁰ Since EV charging stations will also be providing a form of transportation fuel to vehicles, it would be reasonable for EV charging stations to also be required to post their pricing in a manner that is understandable to the general public. Other measures to address the potential for the exercise of market power in the early steps of market development may also be necessary.

III. CONCLUSION

The OCA appreciates the opportunity to provide comments in this matter. EDC tariffs provide the rules that ensure safe and reliable service to consumers. For the reasons mentioned above, the OCA submits that encouraging updated tariff language or issuing a policy statement could further clarify the issues regarding EV charging stations.

Respectfully Submitted,



Harrison W Breitman
Assistant Consumer Advocate
PA Attorney I.D. # 320580
E-Mail: HBreitman@paoca.org

Counsel for:
Tanya J. McCloskey
Acting Consumer Advocate

Office of Consumer Advocate
555 Walnut Street 5th Floor, Forum Place
Harrisburg, PA 17101-1923
Phone: (717) 783-5048
Fax: (717) 729-7152

⁵⁰ "Each retailer of automotive fuel in this Commonwealth shall label in a clear and conspicuous manner each automotive fuel dispenser which is used to sell or offer or expose for sale automotive fuel, with the automotive fuel rating of the fuel, which shall be consistent with the automotive fuel rating certified to the retailer by the refiner, distributor or oxygenate blender, as the case may be." See, 3 Pa. Code § 4187.5(b)(1).

Duquesne Light Company's ("Duquesne") tariff expressly exempts EV charging stations from the definition of resale and states as follows:

For purposes of third party-owned electric vehicle charging stations, charging the electric vehicle shall not be considered redistribution as defined in Rule No. 18 - Redistribution. Electric vehicles are defined as any vehicle licensed to operate on public roadways that are propelled in whole or in part by electrical energy stored on-board for the purpose of propulsion. Types of electric vehicles include, but are not limited to, plug-in hybrid electric vehicles and battery electric vehicles. Electric vehicle charging stations shall be made in accordance with the Company's "Electric Service Installation Rules," a copy of which may be found at www.duquesnelight.com. The station must be designed to protect for back flow of electricity to the Company's electrical distribution circuit as required by Company rules. The Company shall not be liable for any damages associated with operation of the charging station. For stations dedicated solely for the purpose of charging electric vehicles wherein a third party owns the charger and allows an electric vehicle owner to use their facility to charge an electric vehicle, the owner of the charging facility shall notify the Company at least one hundred twenty (120) days in advance of the planned installation date and may be required to install metering for the station as determined by the Company. The third party owner of the station shall be responsible for all applicable Tariff rates, fees and charges. For such installations, the electric vehicle owner shall be responsible for all fees imposed by the owner of the station for charging the electric vehicle. Supplement No. 159 to Electric Pa. P.U.C. No. 24.

PECO's tariff addresses resale of service in Rule 13.1 and states as follows:

13. CUSTOMER'S USE OF SERVICE 13.1 RESALE OF SERVICE. Pursuant to Section 1313 of the Public Utility Code, 66 Pa. C.S. § 1313, a customer may resell Energy and Capacity and/or service provided by PECO Energy under its default service plan if: (1) the Company provides such service under a single contract at one application of an available Base Rate and for the total requirements of the premises served, and (2) the location and use of the service conforms to the availability requirements of this Tariff for provision to the customer for the customer's own account. All residential units connected after May 10, 1980, except those dwelling units under construction or under written contract for construction as of that date must be individually metered by either the Company, the AMSP or the landlord for their basic electric service supply. Centrally supplied master metered heating, cooling or water heating service may be provided if such supply will result in energy conservation. The bill rendered by the reseller to any consumer shall not exceed the amount which PECO Energy

would bill its own residential customers for the same quantity of service under the applicable tariffed residential rate. The requirements for individually metered dwelling units in new construction may be waived at the sole discretion of the Company. Such waiver will only be granted when the owner can demonstrate to the Company that there are valid reasons for such waiver and that there will not be a significant impact on the consumption of an individual customer. Supplement No. 46 to Electric Pa. P.U.C. No. 5, Rule 13.1.

PPL's Rule 5F addresses the redistribution of service as follows:

F. REDISTRIBUTION OF SERVICE (1) Energy purchased from the Company shall not be submetered and resold to another party except as permitted under 5F(2) and 5F(4). It is the Company's intent to meter and bill each tenant as an individual customer. Tenant is defined as an occupant of a multi-tenancy commercial building or parcel where it is expected that tenure shall be for a year or more. For the purpose of this rule, the term multi-tenancy commercial building shall include any structure which contains or houses 3 or more separate and distinct residential or commercial units. (2) Where installation of electric service was completed by May 21, 1980, electric energy may be redistributed and submetered to tenants provided service to the premises is to one point of delivery through a single meter under the applicable general rate schedule, and charges for electric service to such tenants do not exceed charges as computed under the Company's applicable rate schedule for comparable service. (3) At the service locations covered hereunder connected after May 21, 1980, each tenant shall be served, metered and billed individually by the Company under the appropriate rate schedule except where a definite commitment has been made as of that date to permit master metering with the resale provision of 5F(2). Upon application, affidavit, and proof presented to the Company, any owner (or his duly authorized representative) of a new multi-tenancy commercial building may seek an exception to Tariff Rule 5(F) by demonstrating that the installation of individual electric meters at each separate unit within the building is neither feasible nor practical from a financial, technical, or engineering point of view or by citing any other valid reason; all of which must be designed to prove that the installation of individual electric meters within the building will not achieve any notable reduction in the consumption of electricity by the tenants in the building beyond that which would be accomplished through the use of a master metering system with efficient heat controls. (4) Company, at its discretion, may permit submetering for both existing and new service locations in accordance with the resale provisions of 5F(2) when all of the following conditions are present: (a) It is impractical for the Company to separately bill each tenant. (b) Each tenant has control of the majority of his electric energy use. (c) That substantial energy conservation will be effected. Supplement No. 233 to Electric Pa. P.U.C. No. 201, Rule 5F.

Appendix A

UGI Utilities' tariff provision regarding the resale of service, Rule 9, states as follows:

9-a Resale of Service (1) Electric energy purchased under this Tariff shall not be redistributed, submetered, resold or otherwise charged to a third party except as provided herein

(2) A person or business entity contracting for service to a single premise under a general service rate schedule may supply the electric energy requirements of tenants of the premises as part of the total rental charge provided that the charge for electric energy is not separately itemized and does not fluctuate according to the electric energy consumption of the tenant. This provision is limited to locations where the tenant is classified as general service at all locations served prior to January 1, 1980.

(3) A person or business entity contracting for service to a single premise may be specifically authorized by written agreement to redistribute, resell and submeter electric energy to tenants in accordance with Company provisions including but not limited to the following: that the practice of resale is limited to the premises as described in the contract for electric service; that service to the premises is through a single meter under the applicable general service rate schedule; that the charges for electric service to such tenants do not exceed the Company's applicable rate for like and contemporary service; and that all facilities installed beyond the Company's point of delivery to redistribute energy to third parties are acceptable to the Company. This provision is limited to locations where the tenant is classified as general service at all locations served prior to January 1, 1980.

(4) Master metering will not be permitted on any building consisting of multiple dwelling units constructed after January 1, 1980. The Company will supply energy to each customer through Company owned meters at the applicable rate schedules. This rule will not apply where: A. It is in conflict with State or Federal Housing Regulations. B. Where it can be demonstrated that individual metering will prevent or discourage the use of renewable resources. Supplement No. 176 to Electric Pa. P.U.C. No. 5, Rule 9.

The Electric Company of Lewisburg's Rule 8 addresses redistribution of service as follows:

8. REDISTRIBUTION OF SERVICE (a) Energy purchased from the Company shall not be submetered and resold to another party except as permitted under Rule 8(b) and 8(d). It is the Company's intent to meter and bill each tenant as an individual customer. Tenant is defined as an occupant of a multi-tenancy commercial building or parcel where it is expected that tenure shall be for a year or more. For the purpose of this rule, the term multi-tenancy commercial building shall include any structure which contains or houses 3 or more separate and distinct residential or commercial units

(b) Where installation of electric service was completed by July 1, 1982, electric

Appendix A

energy may be redistributed and submetered to tenants provided service to the premises is to one point of delivery through a single meter under the applicable general rate schedule, and charges for electric service to such tenants do not exceed charges as computed under the Company's applicable rate schedule for comparable service.

(c) At service locations covered hereunder connected after July 1, 1982, each tenant shall be served, metered and billed individually by the Company under the appropriate rate schedule except where a definite commitment has been made as of that date to permit master metering with the resale provision of Rule 8(b). Upon application, affidavit, and proof presented to the Company, any owner (or the Customer's duly authorized representative) of a new multi-tenancy commercial building may seek an exception to Rule 8 by demonstrating that the installation of individual electric meters at each separate unit within the building is neither feasible

nor practical from a financial, technical, or engineering point of view or by citing any other valid reason; all of which must be designed to prove that the installation of individual electric meters within the building will not achieve any notable reduction in the consumption of electricity by the tenants in the building beyond that which would be accomplished through the use of a master metering system with efficient heat controls.

(d) Company, at its discretion, may permit submetering for both existing and new service locations in accordance with the resale provisions of 8(b) when all of the following conditions are present:

- (1) It is impractical for the Company to separately bill each tenant.
- (2) Each tenant has control of the majority of the Customer's electric energy use.
- (3) That substantial energy conservation will be effected. Supplement No. 115 to Electric Pa. P.U.C. No. 14, Rule 8.

Pike County Light & Power's Rule 11.2 on submetering restricts resale as follows:

11.2 SUBMETERING: Electric service will not be supplied for resale, remetering (or submetering) or other disposition to others, except that a customer may furnish electric service for the use of his tenants or other occupants, provided such customer shall not resell, make a specific charge for or remeter (or submeter) or measure any of the electricity so redistributed or furnished. Electric Pa. P.U.C. No. 8, Rule 11.2.