COMMONWEALTH OF PENNSYLVANIA

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

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

July 30, 2019

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Commonwealth Keystone Bldg.
400 North Street
Harrisburg, PA 17105-3265

Re: Petition of PPL Electric Utilities Corporation for Approval of Tariff Modifications and Waivers of Regulations Necessary to Implement its Distributed Energy Resources Management Plan
Docket No. P-2019-3010128

Dear Secretary Chiavetta:

Attached for electronic filing, please find the Office of Consumer Advocate's Answer in the above-referenced proceeding. The undersigned certifies that this filing contains no averments or denials of fact subject to verification and penalties under 52 Pa. Code Section 1.36.

Copies have been served as indicated on the enclosed Certificate of Service.

Respectfully Submitted,

David T. Evrard

David T. Evrard
Assistant Consumer Advocate
PA Attorney I.D. # 33870
E-Mail: DEvrard@paoca.org

Enclosure
cc: Certificate of Service
Office of Administrative Law Judge
*276729

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

| | | |
|---|---|---|
| Petition of PPL Electric Utilities Corporation<br>for Approval of Tariff Modifications and Waivers<br>of Regulations Necessary to Implement its<br>Distributed Energy Resources Management Plan | :<br>:<br>:<br>: | Docket No. P-2019-3010128 |

---

ANSWER OF THE
OFFICE OF CONSUMER ADVOCATE

---

Pursuant to Section 5.61 of the Regulations of the Pennsylvania Public Utility Commission (Commission), 52 Pa. Code Section 5.61, the Office of Consumer Advocate (OCA) hereby files this Answer to the Petition of PPL Electric Utilities, Inc. (PPL or Company) for Approval of Tariff Modifications and Waivers of Regulations to Implement its Distributed Energy Resources Management Plan (Petition). Through its Petition, the Company requests that the Commission grant modifications to PPL's tariff allowing it to require new Distributed Energy Resource (DER) applicants to install a 'smart inverter' and a DER management device that will allow the Company to monitor and manage the DER system. Petition, App. A.

The OCA has supported the development of cost effective distributed generation as a means to improve the reliability of the grid by providing localized sources of electric power. The OCA equally understands the limitations that some current inverters have upon the system, including their inability to remain operational during small voltage and frequency fluctuations of the electric grid. The latest generation of smart inverters could potentially reduce the occurrence of these issues if adopted appropriately.

The Company's proposal, however, is problematic for several reasons. Specifically, the Company's Petition is premature because the industry standards necessary to fully implement the technology are incomplete, with full adoption not expected until 2020-2022. The Company also fails to address important considerations in light of the flexibility and functionality smart inverters provide. In other words, the proposal would provide the Company with [A1]substantial control over DERs interconnected to its electric distribution grid that it does not currently have.

Moreover, the OCA questions whether this proceeding is the proper forum to address these issues. The adoption of smart inverters impacts a broad range of stakeholders, including regulators, utilities, and consumers. The examination of the issues may best be served through broad participation of interested parties to develop a standard set of rules, ensuring successful implementation of the new technology, as has occurred in other states. Such a process would also be appropriate in Pennsylvania, considering the lower penetration of DERs compared to other states that have already started the process.

Lastly, PPL's Petition fails to identify any consumer protections that it would implement as part of its Distributed Energy Resources Management Plan. Considering that the Company intends to monitor and manage a customer's DER with this equipment, customers should be informed of how this device will impact them. Moreover, customers should be made aware of any data that the Company intends to collect from smart inverters. Lastly, rules should be established to protect customers from any unnecessary Company interference to the operation of their DER.

## I. INTRODUCTION

On May 24, 2019, the Company filed its Petition seeking to waive several Commission Regulations and modify its tariff to add Rule 12, entitled Distributed Energy Resource

Interconnection Service (DERIS). Petition, App. A. As drafted, DERIS would require applicants seeking approval to interconnect DERs with PPL's distribution grid to install smart inverters and a DER management device. Petition ¶ 36. With this technology, the Company would be able to monitor and manage the customer's DER remotely. Petition ¶ 37.

The Commission's Regulations at 52 Pa. Code Chapter 75, the Alternative Energy Portfolio Standards (the AEPS), set forth the requirements and standards that Electric Distribution Companies (EDCs) must meet if customer-generators on their system intend to pursue net-metering opportunities and interconnect with the electric distribution grid. See 52 Pa. Code Section 75.21; see also 73 P.S. Section 1648.5 (directing the Commission to develop technical and net metering interconnection rules for customer-generators). Importantly, the AEPS requires that all interconnection requests comply with two industry standards: (1) the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547, "Standard for Interconnecting Distributed Resources with Electrical Power Systems," as amended and supplemented, and Underwriters Laboratories (UL) Standard 1741, "Inverters, Converters and Controllers for use in Independent Power Systems" (January 2001), as amended and supplemented. See 52 Pa. Code Sections 75.22, 75.34, 75.35. That is, the inverter or other technology used to convert the generated power from direct current to alternating current must meet the IEEE 1547 standard pursuant to UL Standard 1741 certifications. Furthermore, the AEPS limits EDCs from requiring additional equipment or imposing any other requirement upon DER applicants that is not specifically required by the AEPS. 52 Pa. Code Section 75.13(k)

IEEE 1547 is a national standard regarding the technical specifications for, and testing of, the interconnection and interoperability between electric power systems and DERs. Petition ¶ 26. Similarly, UL 1741 was developed to provide a standard to which all the equipment must be

tested and certified for compliance with IEEE 1547. Petition ¶ 32. The AEPS Regulations were promulgated in 2006 when previous versions of IEEE 1547, otherwise known as IEEE 1547-2003, and UL 1741 were in effect. Petition ¶ 14, 28.

At the time, IEEE 1547-2003 set forth a default set of DER capabilities and settings.[1] In other words, all interconnection technology had to be able to disconnect from the grid in the event of certain fluctuations of the frequency and voltage of the grid, otherwise known as 'must-trip' requirements.[2] The issue, however, is that DERs that are compliant with the 'must-trip' requirements are overly sensitive to voltage and frequency fluctuations with short delay times, creating potential reliability concerns, *i.e.* cascading power outages. Id.

IEEE 1547 was recently updated in 2018, otherwise known as IEEE 1547-2018, to address these issues. Petition ¶ 27. IEEE 1547-2018 represents a considerable shift from the prior standard by requiring that newly installed inverters or interconnection technology be able to provide specific grid supportive functionalities, including voltage and frequency ride-through[3], voltage and frequency regulation[4], as well as communication and control functionality[5]. Petition ¶ 40. Inverters with these capabilities have colloquially become known as 'smart inverters.'

---

[1] BRIAN LYDIC & SARA BALDWIN, INTERSTATE RENEWABLE ENERGY COUNCIL, MAKING THE GRID SMARTER: PRIMER ON ADOPTING THE NEW IEEE 1547-2018 STANDARD FOR DISTRIBUTED ENERGY RESOURCES 4 (2019) (MAKING THE GRID SMARTER), *available at* https://irecusa.org/publications/making-the-grid-smarter-state-primer-on-adopting-the-new-ieee-standard-1547-2018-for-distributed-energy-resources/

[2] REIGH WALLING, ET AL., SANDIA NATIONAL LABORATORIES, IMPLEMENTATION OF VOLTAGE AND FREQUENCY RIDE-THROUGH REQUIREMENTS IN DISTRIBUTED ENERGY RESOURCES INTERCONNECTION STANDARDS 5 (2014), *available at* https://energy.sandia.gov/wp-content/gallery/uploads/SAND-2014-3122-VFRT_Paper_April-2014.pdf.

[3] Refers to the ability of smart inverters to remain operational during periods of high or low voltage and high or low frequency, within a defined set of limits. MAKING THE GRID SMARTER at 32.

[4] Refers to the ability of smart inverters to adapt its generational output, whether through providing reactive or passive power to the grid and/or reducing its active power generation, to stabilize abnormal events on the grid. MAKING THE GRID SMARTER at 31-32.

[5] Refers to the installation of a communications device separate from the Smart Inverter, which will allow a utility to monitor the DER device or control its settings remotely.

Petition ¶ 40. To accommodate these additional functions, the IEEE 1547-2018 standard contains a menu of options that need to be considered and selected by regulators.

According to Interstate Renewable Energy Council, full roll-out of these smart inverters is not expected until at least 2022.[6] While IEEE 1547-2018 has been adopted, industry experts are continuing work on IEEE 1547.1, a complementary standard that will guide manufacturers as they test and certify their products.[7] Current expectations are for IEEE 1547.1 to be published in 2019 or 2020.[8] After IEEE 1547.1 is complete, UL 1741 will then be updated, setting forth the product certification standard to which all equipment must be tested and certified.[9] Once both standards have been completed and adopted, it will take an additional 18 months for all DER products to comply and become commercially available.[10]

PPL now petitions this Commission for waiver of several Commission Regulations[11] and approval to modify its tariff to require all new customer-owned and third-party owned DER system installations to install smart inverters, DER management devices, and local communication interfaces and protocols to allow PPL to monitor and manage DERs on its electric distribution grid. Petition ¶ 36. The OCA submits that the Company's Petition is premature and should not be approved at this time for the following reasons:

---

6 MAKING THE GRID SMARTER at 8.

7 Id.

8 Id.

9 Id.

10 Id.

11 PPL seeks to waive the following Commission Regulations: 52 Pa. Code Sections 75.13(c), 75.13(k), 75.22, 75.34, 75.35, 75.37, 75.38, 75.39 and 75.40.

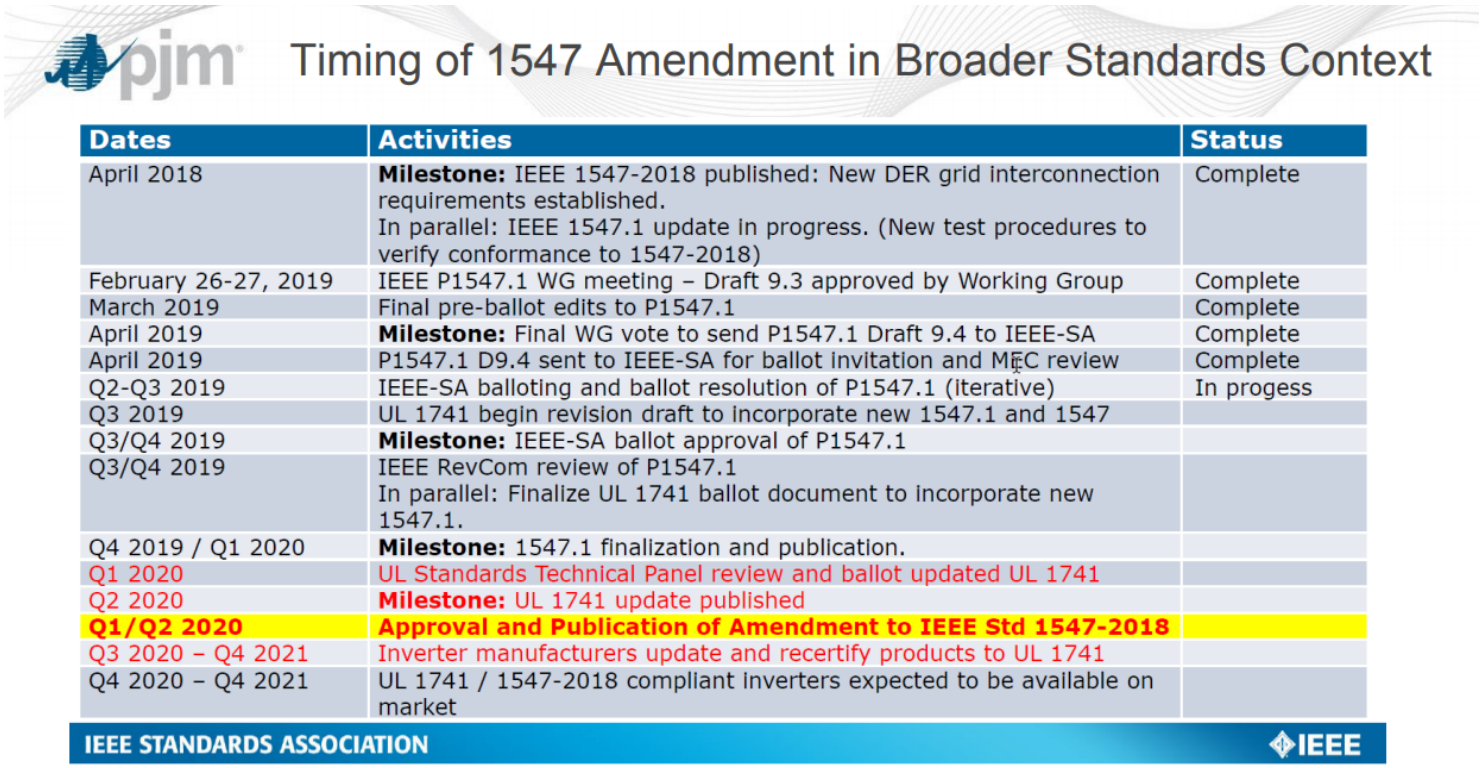
## II. ANSWER

The OCA understands the importance of DER systems and the role they play to help reduce peak demand, provide diverse forms of energy to the system, and relieve stress on the transmission system. The OCA likewise is cognizant of the inherent limitations of some current inverters, including their inability to remain operational during slight fluctuations of the voltage and frequency of the grid. While the OCA supports PPL's proactive efforts, its Petition is premature in that it addresses issues not fully developed by the industry. Additionally, PPL's Petition and proposed tariff supplement provides little detail and explanation, with no discussion of how it would implement smart inverters on its system, to whom it would apply, or the types of consumer protections and education it would provide.

### A. PPL's Petition is Premature Because Industry Standards Necessary to Fully Implement IEEE 1547-2018 Have Not Yet Been Adopted.

IEEE 1547-2018 was approved on February 15, 2018, creating an industry standard for the adoption of smart inverters on the electric grid.[12] That standard, however, is interrelated with two other standards: IEEE 1547.1 entitled "Standard Conformance Test Procedures for Equipment Interconnecting Distributed Energy Resources with Electric Power Systems and Associated Interfaces", and UL 1741. See pg. 5, supra. As also indicated by PJM Interconnection, LLC (PJM), IEEE 1547.1 is currently undergoing revisions and has yet to be finalized, with UL 1741 to follow soon after:

[12] *IEEE 1547-2018 - IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces*, IEEE STANDARDS ASSOCIATION (2019), https://standards.ieee.org/standard/1547-2018.html.




*Source*: "PJM DER Ride Through Task Force, PJM Interconnection LLC, IEEE 1547-2018 Category III – Proposed Amendment to Allow Faster Trip Times at 10 (Jul. 8, 2019)," *available at* https://www.pjm.com/-/media/committees-groups/task-forces/derrttf/20190708/20190708-item-02-pjm-design-component-change-proposal.ashx.

Accordingly, industry standards for the adoption of smart inverters will not be complete until late 2020 or late 2021.

PPL recognizes this issue in its Petition stating that it will substitute its own screening requirements in the absence of an updated UL 1741:

> Indeed, although the relevant revisions to IEEE Standard 1547 have been made, UL 1741 is still under revision. Until UL Standard 1741's revisions are published, there is no standardized testing for manufacturers to certify that their inverters meet IEEE 1547-2018. In the absence of the revised UL Standard 1741, the Company may institute screening requirements for a DER system to be qualified for interconnection that are different than the current standards. Therefore, to the extent that the new UL Standard 1741 is not published by the time the Commission approves this Petition, PPL Electric respectively requests a waiver of the Commission's requirement that 'certified' comply with the 2001 version of UL 1741.

Petition ¶ 80. The Company, however, does not further specify in its Petition the screening requirements it will use. This could create a situation where PPL has certified smart inverters that do not comply with future UL 1741 certification standards or has rejected smart inverters that do comply with the future UL 1741 certification standard. Accordingly, the Company should wait until UL 1741 is updated prior to proceeding.

Furthermore, based upon PJM's forecasts, IEEE 1547-2018 compliant converters will not be on the market until late 2020 or potentially late 2021. See pg. 7, supra. While the Company does claim that smart inverters that comply with IEEE 1547-2018 are available now, PPL does not specify what the costs will be. Petition ¶ 34. As with any new technology, however, iteration and economies of scale will reduce the price over time. Accordingly, DER customers will benefit by waiting until the full adoption of smart inverters.

B. PPL's Petition is Not Descriptive Enough and Fails to Demonstrate How It Will Operate Smart Inverters on its Electric Distribution Grid.

Smart inverters provide more functionality, control, and integration of DER assets than traditional inverters. See Petition ¶ 40. Indeed, IEEE 1547-2018 is unique in that it provides a menu of options and considerations that regulators and utilities must consider as it implements smart inverters.[13] These additional options, however, create additional concerns and problems that must be understood and examined before implementation can fully occur. IREC recently released a report detailing important considerations that must be examined with the adoption of smart inverters. As indicated by IREC:

> Rather than a single package of default settings that work in all instances and for all technologies, IEEE Std 1547-2018 adds new features and requirements and

[13] The Company cites to numerous grid support functions, including (1) fixed power factor, volt/VAR, volt/watt, and reactive power, (2) frequency/watt, (3) low and high voltage and frequency ride through, and (4) power curtailment and remote ON/OFF capability. Petition ¶ 40. As explained below, the OCA is concerned that PPL does not further specify which grid support functions it intends to use, how each function will affect DERs, and to which DERs it would apply.

> includes more flexibility and options. Utilities and state regulatory commissions will need to evaluate, select and assign different "performance categories" for different DERs. In addition, as applicable, states and utilities will need to consult and coordinate with the Regional Reliability Coordinator and Regional Transmission Organization (RTO), Independent System Operator (ISO), or other transmission operator on certain issues within IEEE Std 1547-2018 relating to reliability and performance.

MAKING THE GRID SMARTER at 9-10. Similarly, because PPL intends to actively manage DERs connected to its system, additional issues must be examined by the Commission. Petition ¶ 37. As indicated by IREC:

> Lastly, additional consideration should be given to when and how utilities utilize these communications functions to control DER functionality, which may impact the operation of the DER. States and utilities should be specific about the conditions under which DERs may be remotely curtailed, turned off, and/or when changes to certain settings or functions may be warranted. Any controls that affect DER generation will have consumer protection implications (as noted above) that will need to be proactively addressed and documented in interconnection agreements.

MAKING THE GRID SMARTER at 20.

PPL's Petition, however, provides no in-depth analysis of these issues. Its proposed tariff does not address how it will implement the smart inverters as they are installed, the types of DERs that will be impacted, or how DERs will be impacted altogether. The Company also does not explain when or how it will actively manage DERs when needed. Comparatively, California has developed an extensive set of rules for the adoption of smart inverters that the three major electric utilities in the state, Pacific Gas and Electric Company (PG&E), Sothern California Edison Company (SCE), and San Diego Gas & Electric Company are required to establish in writing through their respective tariffs. In fact, each utility states how it will operate smart inverters, including when, how, and why a smart inverter may affect the operation of a customer's DER. See e.g. Pacific Gas and Electric Company, Electric Rule No. 21: Generating Facility Interconnections, Section Hh: Smart Inverter Generating Facility Design and Operating

Requirements (effective June 30, 2018). Accordingly, PPL's Petition lacks sufficient detail to warrant its approval at this time.

C. The Adoption of Smart Inverters Affects a Broad Group of Parties, including Regulators, Utilities, and Consumers.

The OCA submits that PPL's proposal presents a broader set of questions that affects numerous stakeholders, including regulators, utilities, and customers alike. Indeed, a statewide approach to this issue may be beneficial for several reasons. Specifically, as stated by IREC, clearly "defining DER settings in statewide interconnection rules will help increase efficiency, minimize confusion, and reduce costs. MAKING THE GRID SMARTER at 9. Moreover, it will provide greater consistency and enable a more streamlined rollout of the IEEE 1547-2018 standard. Id., at 10.

This statewide approach is consistent with the Commission's approach to past issues concerning net-metering. As set forth in the Pennsylvania Statutes:

> § 1648.5. Interconnection standards for customer-generator facilities
>
> Excess generation from net-metered customer-generators shall receive full retail value for all energy produced on an annual basis. The commission shall develop technical and net metering interconnection rules for customer-generators intending to operate renewable onsite generators in parallel with the electric utility grid, consistent with rules defined in other states within the service region of the regional transmission organization that manages the transmission system in any part of this Commonwealth. **The commission shall convene a stakeholder process to develop Statewide technical and net metering rules for customer-generators.** The commission shall develop these rules within nine months of the effective date of this act.

73 P.S. § 1648.5 (emphasis added). As seen above, the General Assembly advocated for a statewide approach to the initial set of net-metering rules. The OCA submits that it would be beneficial to follow a similar approach to establish rules in a manner consistent with the General Assembly's intent. Doing so provides the benefits explained above. See also Smart Meter Procurement and Installation, Docket No. M-2009-2092655, Implementation Order (Pa. PUC

June 24, 2009) (providing for a uniform and consistent approach to the adoption of smart meters).

Lastly, other states have approached this issue using a statewide collaborative to develop consistent and uniform rules. California convened a Smart Inverter Working Group[14] (SIWG) in 2014 to examine, discuss, and recommend statewide smart inverter standards and functionalities to the California Public Utility Commission (CPUC).[15] From these recommendations, the CPUC issued several orders adopting statewide requirements for smart inverters.[16] Pennsylvania could also benefit from adopting such an approach to ensure consistent roll out of the new smart inverter requirements among all EDCs.

D. PPL's Petition Fails to Consider and Address Important Consumer Protections.

The Company cites numerous benefits that will result from the adoption of smart inverters. Such benefits include the ability to safely and reliably interconnect more DERs without additional upgrades to the electric distribution grid, to remotely curtail a DER in the event of an emergency, and to improve the power quality at customer sites through autonomous voltage regulation. Petition ¶¶ 54-62. This suggests, however, that operational performance of a DER

---

[14] The Smart Inverter Working Group is composed of a broad range of stakeholders to develop a statewide consensus on Smart Inverter issues. Participants include, among others, the California Public Utilities Commission, California Independent System Operator, Department of Energy, National Renewable Energy Laboratory, Pacific Gas and Electric, San Diego Gas & Electric, Southern California Edison, and Underwriters Laboratories. See Smart Inverter Working Group, Recommendations for Updating the Technical Requirements for Inverters in Distributed Energy Resources at 87-89 (Jan. 2014), *available at* https://www.cpuc.ca.gov/General.aspx?id=4154.

[15] Order Instituting Rulemaking on the Commission's Own Motion to Improve Distribution Level Interconnection Rules and Regulations for Certain Classes of Electric Generators and Electric Storage Resources, Rulemaking 11-09-011, Interim Decision Adopting Revisions to Electric Tariff Rule 21 for Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company to Require "Smart" Inverters at 4 (C.P.U.C. Dec. 18, 2019).

[16] See Smart Inverter Working Group, California Public Utilities Commission (last visited July 26, 2019), https://www.cpuc.ca.gov/General.aspx?id=4154; see e.g. Pacific Gas and Electric Company, Electric Rule No. 21: Generating Facility Interconnections, Section Hh: Smart Inverter Generating Facility Design and Operating Requirements (effective June 30, 2018).

will be affected in certain circumstances. Accordingly, it is critical that consumer protections are adopted to keep consumers informed and prevent unnecessary interruptions of the DER.

At a general level, the OCA submits that there are three broad areas of protection that must be considered. First, utilities must ensure that customers are appropriately informed of how the Company intends to operate these smart inverters. Given that this is a new technology, a customer might not fully understand how, or if at all, the installation of a smart inverter will impact the operation of their DER. It is imperative, therefore, that the customer knows or is familiar with how their DER will be affected. Indeed, IREC presents several proposals to help inform customers:

- Guidelines for tracking and reporting any customer generation losses;
- Methods and techniques for estimating losses and/or the extent of voltage excursions
- Regular utility reporting, filed with the utility commission, of when, where, how often voltage regulation functions are utilized;
- Identification and consideration of possible corrective measures in the event losses are deemed excessive or unwarranted (e.g., DER settings adjustment, monetary reimbursement)

MAKING THE GRID SMARTER at 19.

The second area of protection is consumer privacy. The Commission has made it clear that consumer privacy is of paramount importance. Submission of the Electronic Data Exchange Working Group's Web Portal Working Group's Solution Framework for Historical Interval Usage and Billing Quality Interval Use, Docket No. M-2009-2092655, Final Order at 10 (Pa. PUC June 30, 2016). PPL seeks to access real-time data about a customer's DER, including when it operates and how it operates. Petition ¶ 61. It is critical that consumers are made aware of what data will be collected by the Company.

The last area of consumer protection is limitations on when and how the Company can intervene. If its Petition is approved, PPL has made it clear that it will remotely manage DER assets. Petition ¶ 55. This capability, while beneficial, can also cause concerns about unnecessary interruptions of the customer's DER. The OCA submits that rules should be set for the utility that would prevent them from unnecessarily interfering with the DER or doing so under circumstances that were not previously made known to the customer.

PPL's Petition, however, does not address any of these important consumer protection concerns. This oversight, combined with the ambiguity of the proposed tariff supplement may have the effect of providing too much discretion to the Company. Additionally, because of this discretion, customers will be uninformed of the consequences of installing a smart inverter, if any apply, and inadequately protected from repeated or unnecessary interference to the customer's DER by the Company. This needs to be addressed.

## III. CONCLUSION

For the reasons set forth above, the Office of Consumer Advocate submits that PPL's Petition is premature and should not be granted at this time. Specifically, the Company's application precedes the completion of industry standards necessary for the adoption of smart inverters. Further, the Company's proposal and leaves out key details about how it will implement smart inverters, to whom it will apply, and important consumer protections it will provide. Additionally, this may be a process that is best dealt with on a statewide level considering the broad impacts this will have to regulators, utilities, and customer generators of Pennsylvania.

Respectfully Submitted,

David T. Evrard

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

Phillip D. Demanchick
Assistant Consumer Advocate
PA Attorney I.D. # 324761
E-Mail: PDemanchick@paoca.org

David T. Evrard
Assistant Consumer Advocate
PA Attorney I.D. # 33870
E-Mail: DEvrard@paoca.org

Darryl A. Lawrence
Senior Assistant Consumer Advocate
PA Attorney I.D. # 93682
E-Mail: DLawrence@paoca.org

Counsel for:
Tanya J. McCloskey
Acting Consumer Advocate

Dated: July 30, 2019
276747

CERTIFICATE OF SERVICE

| | | |
|---|---|---|
| Petition of PPL Electric Utilities Corporation for Approval of Tariff Modifications and Waivers of Regulations Necessary to Implement its Distributed Energy Resources Management Plan | : | Docket No. P-2019-3010128 |

I hereby certify that I have this day served a true copy of the following document, the Office of Consumer Advocate's Answer, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code §1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 30th day of July 2019.

SERVICE BY E-MAIL & INTEROFFICE MAIL

Richard A. Kanaskie, Esquire
Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17105-3265

SERVICE BY E-MAIL & FIRST CLASS MAIL, POSTAGE PREPAID

John R. Evans, Esquire
Office of Small Business Advocate
300 North Second Street, Suite 202
Harrisburg, PA 17101

Kimberly A. Klock, Esquire
Michael J. Shafer, Esquire
PPL Services Corporation
Two North Ninth Street
Allentown, PA 18101

Devin T. Ryan, Esquire
David B. MacGregor, Esquire
Post & Schell
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601

/s/ Phillip D. Demanchick
Phillip D. Demanchick
Assistant Consumer Advocate
PA Attorney I.D. # 324761
E-Mail: PDemanchick@paoca.org

David T. Evrard
Assistant Consumer Advocate
PA Attorney I.D. # 33870
E-Mail: DEvrard@paoca.org

Darryl A. Lawrence
Senior Assistant Consumer Advocate
PA Attorney I.D. #93682
Email: DLawrence@paoaca.org

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

*276708