

IN THE SUPREME COURT OF OHIO

OHIO ENVIRONMENTAL COUNCIL,)
ENVIRONMENTAL LAW AND)
POLICY CENTER, and VOTE SOLAR,)
Appellants,)

V.

THE PUBLIC UTILITIES)
COMMISSION OF OHIO,)
Appellee.)

CASE NO. 2019-0573

On Appeal from the Public Utilities Commission of Ohio

*In the Matter of the Commission's Review
of Chapter 4901:1-10 Ohio
Administrative Code Regarding Electric
Companies.*

Case No. 12-2050-EL-ORD

**NOTICE OF APPEAL OF APPELLANTS OHIO ENVIRONMENTAL COUNCIL,
ENVIRONMENTAL LAW AND POLICY CENTER, AND VOTE SOLAR**

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NOTICE OF APPEAL

The Environmental Law & Policy Center, Ohio Environmental Council, and Vote Solar, (“Appellants”) in accordance with Ohio Revised Code sections 4903.11, 4903.12, 4903.13, and Supreme Court Rules of Practice 3.11(D)(2), 5.05, and 10.02, give notice to this Court and the Public Utilities Commission of Ohio (“Appellee” or “Commission”) of their Appeal of the Commission’s decision to amend and approve rules concerning compensation of net metered customer-generators of electricity contained in the Commission’s November 8, 2017 Finding and Order, the Commission’s Fifth Entry on Rehearing (dated December 19, 2018), and the Commission’s Seventh Entry on Rehearing (dated February 27, 2019) (Attachments A, B, and C respectively) in PUCO Case No. 12-2050-EL-ORD. The Commission’s decision sets rules for smaller, household or business-based renewable energy projects, such as rooftop solar and smaller wind projects that are considered net metered systems. A net metered system allows for electricity customers to generate their own electricity, and to receive credit on their bills when their systems produce more electricity than they personally use.

Every five years, per Ohio Revised Code 119.032, state agencies must conduct a review of rules to determine whether to revise, amend or rescind those rules. The Commission began the underlying proceeding in 2012 to review the rules in Ohio Administrative Code (O.A.C.) Chapter 4901:1-10 governing electric companies, as well as other sections of the O.A.C. Specifically, the Commission’s November 8, 2017 Finding and Order, as well as the Fifth Entry on Rehearing, revised O.A.C. 4901:1-10-28 to include (B)(9)(c), which only permits net metered customer-generators to receive payment for excess net electricity generated, excluding payment for the capacity value provided by their systems to the grid. The November 8, 2017 Finding and Order as well as the Commission’s Fifth and Seventh Entries on Rehearing fail to comply with

the requirements of R.C. 4928.67, which requires contracts and tariffs set for net metered customer-generators to be “identical in rate structure, all retail rate components, and any monthly charges to the contract or tariff to which the same customer would be assigned if that customer were not a customer-generator”, because it excludes compensation for the capacity value for all kilowatt hours sent back to the grid by a customer-generator.

Appellants were parties of record in the Commission case 12-2050-EL-ORD and timely filed their Applications for Rehearing of the November 8, 2017 Finding and Order on December 8, 2017 (Attachment D).

Specifically, Appellants contend that the Commission’s Finding and Order, and Entries on Rehearing are unlawful and unreasonable in the following respects, all of which were raised in the Appellants’ Application for Rehearing, as noted:

1. The Commission acted unlawfully, unreasonably, and outside its statutory authority in foreclosing customer-generators from receiving compensation for their contributions to reducing peak system demand because the Commission’s approach treats customer-generators less favorably than non-net metered customers who help reduce peak demand through other mechanisms such as energy efficiency, in violation of R.C. 4928.67.

(Memorandum in Support of Application for Rehearing of the November 8, 2017 Finding and Order by Environmental Law & Policy Center, Ohio Environmental Council, Environmental Defense Fund, Natural Resources Defense Council, and Vote Solar, at 6-7)

2. The Commission unreasonably and unlawfully removed compensation for the value that net metered customer-generators provide to the utility and other ratepayers in reducing peak demand, since the record shows that such peak demand reductions do occur and can decrease costs for all customers.

(Memorandum in Support of Application for Rehearing of the November 8, 2017 Finding and Order by Environmental Law & Policy Center, Ohio Environmental Council, Environmental Defense Fund, Natural Resources Defense Council, and Vote Solar, at 7-13)

3. The Commission in fact recognizes that customer-generators can provide system value by reducing overall peak demand, but unreasonably relies on time-of-use tariffs as sufficient to fully compensate net metered customer-generators for this value despite a record that shows such tariffs are not readily available or well-designed.

(Memorandum in Support of Application for Rehearing of the November 8, 2017 Finding and Order by Environmental Law & Policy Center, Ohio Environmental Council, Environmental Defense Fund, Natural Resources Defense Council, and Vote Solar, at 13-16)

The Appellants respectfully submit that the Commission's Finding and Order, and its Fifth and Seventh Entries on Rehearing in PUCO Case No. 12-2050-EL-ORD are unreasonable, unjust, and unlawful. This Court should be reverse, vacate, or modify the PUCO's decision and remand with specific instructions to the Commission to correct these errors.

Respectfully submitted,

/s/ Miranda Leppla

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CERTIFICATE OF FILING

The undersigned counsel for Appellants certifies that, in accordance with Supreme Court Rule of Practice 3.11(D)(2), a copy of the Notice of Appeal was filed with the docketing division of the Public Utilities Commission of Ohio in accordance with sections 4901-102(A) and 4901-1-36 of the Ohio Administrative Code on this 29th day of April, 2019.

/s/ Miranda Leppla

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CERTIFICATE OF SERVICE

The undersigned counsel for Appellants certifies that, in accordance with Supreme Court Rule of Practice 10.02(A)(2)(a) and 3.11(B)(2), a copy of this Notice of Appeal was served upon the Chairman of the Public Utilities Commission of Ohio. In addition, the undersigned counsel certifies that a copy of this Notice of Appeal was served by electronic mail upon counsel for all parties to the proceeding before the Public Utilities Commission of Ohio identified below and pursuant to Section 4903.13 of the Ohio Revised Code on this 29th day of April, 2019.

/s/ Miranda Leppla
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THE PUBLIC UTILITIES COMMISSION OF OHIO

**IN THE MATTER OF THE COMMISSION'S
REVIEW OF CHAPTER 4901:1-10 OF THE
OHIO ADMINISTRATIVE CODE.**

CASE NO. 12-2050-EL-ORD

FINDING AND ORDER

Entered in the Journal on November 8, 2017

I. SUMMARY

{¶ 1} The Commission adopts amendments to the net metering rule in Ohio Adm.Code 4901:1-10-28. The Commission finds that the electric utilities shall offer a standard net metering tariff to standard service offer customers, while competitive retail electric service providers shall be provided greater opportunities to offer diverse net metering products and service to shopping customers.

II. DISCUSSION

{¶ 2} R.C. 111.15(B) and R.C. 106.03(A) require all state agencies to conduct a review of their rules every five years to determine whether those rules should be continued without change, be amended, or be rescinded. At this time, the Commission is reviewing the net metering rules contained in Ohio Adm.Code 4901:1-10-28.

{¶ 3} R.C. 106.03(A) requires that the Commission determine whether the rules:

- (a) Should be continued without amendment, be amended, or be rescinded, taking into consideration the purpose, scope, and intent of the statute under which the rules were adopted;
- (b) Need amendment or rescission to give more flexibility at the local level;
- (c) Need amendment or rescission to eliminate unnecessary paperwork;

- (d) Incorporate a text or other material by reference and, if so, whether the text or other material incorporated by reference is deposited or displayed as required by R.C. 121.74, and whether the incorporation by reference meets the standards stated in R.C. 121.71, 121.75, and 121.76;
- (e) Duplicate, overlap with, or conflict with other rules;
- (f) Have an adverse impact on businesses, as determined under R.C. 107.52;
- (g) Contain words or phrases having meanings that in contemporary usage are understood as being derogatory or offensive; and
- (h) Require liability insurance, a bond, or any other financial responsibility instrument as a condition of licensure.

{¶ 4} The Commission must also consider several factors set forth in Executive Order 2011-01K, entitled "Establishing the Common Sense Initiative," and issued by Governor Kasich on January 10, 2011. Under the Common Sense Initiative, the Commission must review its rules to determine the impact that a rule has on small businesses; attempt to balance the critical objectives of regulation and the cost of compliance by the regulated parties; and amend or rescind rules that are unnecessary, ineffective, contradictory, redundant, inefficient, or needlessly burdensome. The Commission must also assess whether a rule has had negative, unintended consequences, or unnecessarily impeded business growth.

{¶ 5} Additionally, in accordance with R.C. 121.82, in the course of developing draft rules, the Commission must evaluate the rules against the business impact analysis (BIA). If there will be an adverse impact on businesses, as defined in R.C. 107.52, the

Commission is tasked to incorporate features into the draft rules to eliminate or adequately reduce any adverse impact. R.C. 121.82 also requires the Commission to provide a copy of the draft rules and BIA to the Common Sense Initiative office for comment.

{¶ 6} On January 15, 2014, the Commission issued a Finding and Order in this case that adopted both amended and no-change rules in Ohio Adm.Code Chapter 4901:1-10 and ordered that they be filed with the Joint Committee on Agency Rule Review (JCARR), the Secretary of State, and the Legislative Service Commission. However, subsequent to issuing the Order and filing the rules with JCARR, Rule 4901:1-10-28 regarding net metering was withdrawn from JCARR for further consideration.

{¶ 7} On May 5, 2015, the Commission's Staff conducted a workshop to receive additional stakeholder input on net metering. Numerous stakeholders attended the workshop and provided Commission Staff with insight on how the net metering rule should be developed. The May 5, 2015 workshop was the Commission's second regarding Ohio Adm.Code Chapter 4901:1-10. However, the purpose of the May 5, 2015 workshop was solely related to the issue of net metering in Ohio Adm.Code 4901:1-10-28.

{¶ 8} Following the second workshop, by Entry issued on November 18, 2015, the Commission requested comments and reply comments on proposed Ohio Adm.Code 4901:1-10-28 (Net Metering Rule) from interested stakeholders. Comments were received by the Natural Resources Defense Council (NRDC); The Alliance for Solar Choice (TASC); Ohio Power Company (AEP Ohio); the Ohio Consumers' Counsel (OCC); Direct Energy Business, LLC, and Direct Energy Services, LLC (jointly, Direct Energy); Duke Energy Ohio, Inc. (Duke); The Toledo Edison Company, The Cleveland Electric Illuminating Company, and Ohio Edison Company (collectively, FirstEnergy); One Energy, LLC (One Energy); the Environmental Law and Policy Center (ELPC), the Ohio Environmental Council (OEC), the Environmental Defense Fund (EDF), and Vote Solar

(collectively, Environmental Advocates); The Dayton Power and Light Company (DP&L); and IGS Solar, IGS Generation, and Interstate Gas Supply, Inc. (collectively, IGS) on December 18, 2015. Thereafter, reply comments were received by DP&L, One Energy, OCC, AEP Ohio, Duke, IGS, the Ohio Manufacturers' Association Energy Group (OMAEG), FirstEnergy, Direct Energy, and the Environmental Advocates on January 8, 2016. The Commission reviewed each of the comments and reply comments, as well as the comments and reply comments that were filed in this case on January 7, 2013, and February 6, 2013, and now issues this Finding and Order adopting proposed Ohio Adm.Code 4901:1-10-28.

{¶ 9} The Commission notes that our intent behind the adopted Net Metering Rule is to implement the net metering requirements in R.C. 4928.67 and to further the policies of the state of Ohio in R.C. 4928.02. Specifically, it is the policy of the state of Ohio to "encourage implementation of distributed generation across customer classes through regular review and updating of administrative rules governing critical issues such as, but not limited to, interconnection standards, standby charges, and net metering." R.C. 4928.02(K). Additionally, it is the policy of the state of Ohio to "ensure diversity of electricity supplies and suppliers, by giving consumers effective choices over the selection of those supplies and suppliers and by encouraging the development of distributed and small generation facilities." R.C. 4928.02(C). The Net Metering Rule adopted by the Commission in this case furthers both of these policies by encouraging the implementation of distributed generation by giving customer-generators choice over their supplier of net metering service.

{¶ 10} The Commission finds that the Net Metering Rule will foster a competitive marketplace for net metering products and services. It is the Commission's intent for each of the electric utilities to offer both a standard net metering tariff and a hospital net metering tariff, while also creating an environment where competitive retail electric service providers (CRES providers) are encouraged to offer innovative net metering

products and services. The adopted rule proposes to do this by providing customer-generators with access to advanced meters and by providing CRES providers with better access to the data and capabilities of those meters. We note, however, that those customer-generators who are currently shopping and participating in net metering through an electric utility should be permitted to continue to participate through the electric utility for up to one year after the effective date of these amendments. Below we summarize some of the comments and reply comments received by the Commission that provided invaluable stakeholder feedback in this proceeding.

III. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(A) - DEFINITIONS

{¶ 11} In Ohio Adm.Code 4901:1-10-28(A), the Commission proposed to define a customer-generator as simply a user of a net metering system, which is how the term is defined in R.C. 4928.01(A)(29). Duke requests that the Commission clarify that an electric utility that owns and operates distributed generation on a customer's premises may be considered a customer-generator. In reply comments, AEP Ohio supports Duke's request to permit electric utilities to construct and operate distributed generation.

{¶ 12} The Commission makes no finding on whether an electric utility can be considered a customer-generator. We simply find that a customer-generator is a user of a net metering system. Additionally, we note that a net metering system is a generation facility that uses the appropriate fuel type, is located on the customer-generator's premises, operates in parallel with the electric utility's transmission and distribution facilities, and is intended primarily to offset part or all of the customer-generator's requirements for electricity. If an electric utility intends to be a customer-generator itself, such as by constructing a net metering system on its own premises to serve its own requirements, then this may result in the electric utility being a customer-generator. However, if an electric utility intends to offer net metering to customers in a manner not contemplated by R.C. Chapter 4928 or Ohio Adm.Code 4901:1-10-28, then the electric utility may file an application with the Commission for our consideration. The

Commission will consider whether any such application meets the requirements of R.C. 4928.67 or otherwise furthers the policies of the state of Ohio in R.C. 4928.02.

{¶ 13} In Ohio Adm.Code 4901:1-10-28(A), the Commission proposed to define a microturbine as a turbine with a capacity of 2 Megawatts (MW) or less. FirstEnergy argues that the term “microturbine” itself recognizes that a microturbine is otherwise smaller than a standard turbine. FirstEnergy argues that the Commission should decrease the size threshold of a microturbine from the proposed 2 MW to 500 kW. In reply comments, IGS opposes FirstEnergy’s request. IGS notes that the Commission has the discretion to determine the proper size limit for microturbines. Additionally, IGS notes that the statute does not define the difference between a turbine and a microturbine, so the Commission may use its technical expertise and understanding of the industry to set an appropriate size limit.

{¶ 14} The Commission finds that FirstEnergy’s proposal to limit microturbine size to 500 kW should not be adopted. The Commission notes that the size limit on microturbines is actually a secondary size limit. Pursuant to R.C. 4928.01(A)(31)(d), a net metering system using microturbines must intend primarily to offset part or all of its requirements for electricity. Accordingly, as explained *infra*, all net metering facilities should be sized at no more than 120 percent of their requirements for electricity at the time of interconnection. Further, under Ohio Adm.Code 4901:1-22-07, distributed generation facilities under 2 MW generally qualify for review under the Level 2 expedited review procedure for interconnection to an electric utility’s distribution system. Finally, we note that pursuant to R.C. 4928.02(K), it is the policy of this state to encourage *implementation of distributed generation across customer classes through regular review and updating of administrative rules governing critical issues such as interconnection standards and net metering*. Accordingly, the Commission finds the size limit for microturbines should be set at 2 MW.

IV. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(1)

{¶ 15} As proposed, Ohio Adm.Code 4901:1-10-28(B)(1) would require the electric utilities to offer net metering exclusively to standard service offer (SSO) customers. Additionally, CRES providers would be provided the opportunity to offer net metering to their customers at any price, rate, credit, or refund for excess generation. Direct Energy and IGS support the proposal to allow CRES providers to enter into net metering contracts with customers. However, Direct Energy requests that the Commission clarify that a CRES provider's net metering contract may include a monetary credit, a kWh credit, or any combination thereof to account for the net metering system's generation.

{¶ 16} Additionally, OMAEG notes that under the Commission's proposed rule, customer-generators who sign net metering contracts with CRES providers would not be guaranteed compensation for their excess generation. OMAEG proposes that the Commission require CRES providers to convert excess generation to a monetary credit, at whatever the agreed upon rate is, and have that credit applied to customer-generators' future bills.

{¶ 17} The Commission finds that its proposed rule should be adopted. CRES providers may offer net metering contracts to customer-generators at any price, rate, credit, or refund for excess generation from a customer-generator. Accordingly, the burden rests with customer-generators to compare offers and to consider the price, terms, and conditions of net metering contracts being offered by CRES providers, consistent with how customers shop in any competitive market. The Commission's intent is to adopt a market-based Net Metering Rule where customers can choose from multiple net metering offers between competing providers. While the Commission intends to promote a market-based approach to net metering, we also recognize that R.C. 4928.67 requires electric utilities to make available upon request net metering service to any SSO customer that the electric utility serves. Accordingly, the electric utilities should offer net metering service to any SSO customer that requests such service, while CRES providers

may offer net metering contracts with different benefits and compensation to customer-generators than what the electric utilities are required to offer.

{¶ 18} OCC asserts the Commission should add a requirement that the electric utilities offer time-differentiated rates through a time-differentiated SSO. OCC avers this would allow net metering customers to realize the full benefit of their energy supply contribution, particularly in areas where CRES providers are not offering time-differentiated rates or net metering contracts to customers. However, in reply comments, FirstEnergy, DP&L, and AEP Ohio oppose OCC's proposal. FirstEnergy, DP&L, and AEP Ohio assert that OCC's proposal goes far beyond the scope of this proceeding and would be more appropriately raised in an electric security plan (ESP) proceeding.

{¶ 19} The Commission agrees with the electric utilities and finds that OCC's proposal should not be adopted in this proceeding. Time-differentiated rates are outside the scope of this proceeding. While R.C. 4928.67(A)(2)(b) provides for hospital customer-generators to receive the market value of the hospital customer-generator's electricity at the time it is generated, this requirement has already been incorporated into the rule. The Commission will address the issue of time-differentiated rates for all customers in a more appropriate proceeding.

{¶ 20} Duke asserts that its billing system will need significant modifications to accommodate net metering. However, Duke proposes that limiting net metering to CRES providers with dual billing capabilities would mitigate its cost of accommodating net metering. In reply comments, Direct Energy objects to Duke's proposal. Direct Energy asserts that only allowing CRES providers who use dual billing to offer net metering would be a significant impediment to residential net metering.

{¶ 21} The Commission finds that Duke's proposal should not be adopted. We find that allowing only those CRES providers who have implemented dual billing to offer net metering would significantly impede the adoption of net metering by residential

customers, which would be inconsistent with R.C. 4928.02(D), (E), and (K)'s call to encourage implementation of distributed generation and net metering in Ohio. However, as we explain below, we will allow the electric utilities to automatically move customer-generators to bill-ready billing, which should mitigate some of the electric utilities' costs of accommodating net metering.

V. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(2)

{¶ 22} Ohio Adm.Code 4901:1-10-28(B)(2) requires that a net metering system use as its fuel either solar, wind, biomass, landfill gas, or hydropower, or use a microturbine or fuel cell. IGS argues the Commission should also include reciprocating engines in this definition. IGS recognizes that this rule relies upon the statutory definition of net metering system in 4928.01(A)(31)(a), which does not include reciprocating engines as a technology or fuel source for net metering. However, IGS asserts that the proposed rule fails to satisfy the spirit of R.C. 4928.02 to promote the development of distributed generation in Ohio. In reply comments, AEP Ohio and FirstEnergy oppose IGS's proposal to add reciprocating engines to the list of eligible net metering systems. Each notes that adding reciprocating engines would violate the plain language of R.C. 4928.01(A)(31)(a).

{¶ 23} The Commission finds that IGS's proposal should be denied. Pursuant to the plain language of R.C. 4928.01(A)(31)(a), a net metering system must use as its fuel either solar, wind, biomass, landfill gas, or hydropower, or use a microturbine or fuel cell.

VI. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(6)

{¶ 24} Pursuant to the proposal in Ohio Adm.Code 4901:1-10-28(B)(6), a net metering system must be located on a customer-generator's premises, which may include a contiguous lot. FirstEnergy asserts that the Commission should not allow customer-generators to construct net metering systems on contiguous lots. FirstEnergy argues that allowing net metering systems on contiguous lots would permit customer-generators to

construct distribution lines between properties or over roadways, which would be unsafe and a direct violation of R.C. 4933.81, 4933.82, or 4933.83. Similarly, DP&L urges the Commission to specifically disallow the placement of a generator miles away from the actual metering point, thus creating customer-owned distribution lines. FirstEnergy further argues that the electric utilities have the exclusive right to provide electric service *in their certified territories*, and allowing customer-generators to provide electricity between lots would infringe on this right. TASC supports the Commission's proposed definition of customer premises. Additionally, the Environmental Advocates, IGS, and One Energy recommend that the Commission reject FirstEnergy's arguments and allow customer-generators to construct facilities on contiguous lots, regardless of easements, thoroughfares, and rights-of-way; the same groups provide no commentary as to DP&L's request for clarifying language.

{¶ 25} Initially, we disagree with FirstEnergy's arguments that the proposed rule infringes upon the electric utilities' exclusive right to provide service under R.C. 4933.81, 4933.82, and 4933.83. The Commission reaches the same conclusion regarding DP&L's suggestion to specifically limit the surface area implicated by contiguous lots. However, we recognize the need to provide the electric utilities with flexibility to determine whether a net metering system on a contiguous lot would create an unsafe or hazardous condition. Accordingly, we find the rule should provide that a customer-generator's premises *may* include a contiguous lot, so long as it would not create an unsafe or hazardous condition, as determined by the electric utility through its interconnection review process. The Commission notes that through Ohio Adm.Code Chapter 4901:1-22, the electric utilities are required to evaluate applications for interconnection to protect public and worker safety and system reliability. The Commission intends for this rule to provide opportunities for customer-generators to construct net metering systems on contiguous lots, but only when such facilities would not create hazardous or unsafe conditions.

VII. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(7)(a)

{¶ 26} Ohio Adm.Code 4901:1-10-28(B)(7) implements the requirement in R.C. 4928.01(A)(31)(d) that customer-generators must intend primarily to offset part or all of their requirements for electricity. Under the proposed rule, the electric utilities would calculate the customer's requirements for electricity by averaging the annual electricity consumption over the previous three years, and then provide that data to customers upon request.

{¶ 27} DP&L, FirstEnergy, Duke, and AEP Ohio argue that the electric utilities should not have the burden of predicting consumption; instead, customers should have the burden of making consumption estimates and sizing their net metering facilities so as not to generate in excess of their requirements for electricity. Each of the electric utilities note that it can be expensive to maintain long-term electronic billing data. DP&L recommends that customer-generators should be required to present a construction packet and usage estimates to their electric utility to demonstrate the net metering system is not oversized. AEP Ohio proposes that customer-generators sign an attestation of the expected annual electricity generation and a report verifying that the net metering system is not oversized. Additionally, FirstEnergy asserts that the Commission's proposed method of calculating a consumption estimate and providing it to the customer-generator may result in the electric utilities disclosing proprietary or confidential customer energy usage data.

{¶ 28} OCC proposes that the electric utilities calculate a rolling three-year average consumption for each customer on a monthly basis and provide such data to customers through the electric utility's website. To access such data, OCC proposes that the electric utilities implement an online portal where customers will register and log-in to a password protected section of the utility's website. However, in reply comments, the electric utilities oppose OCC's proposal that the electric utilities calculate a rolling three-

year average consumption for each customer on a monthly basis and provide the data to customers.

[¶ 29] In reply comments, Direct Energy, the Environmental Advocates, and OCC disagree with the electric utilities' proposal to have customers make their own consumption estimates. The Environmental Advocates assert the electric utilities should provide consumption estimates. In the alternative, Direct Energy proposes the electric utilities use an average customer consumption profile based upon the square footage of the facility or the rate class. Additionally, Direct Energy recommends that a simple line item be added to an interconnection application indicating the customer's historical annual usage or expected annual usage and an estimate of the expected annual production.

[¶ 30] The Commission agrees with the electric utilities that properly sizing a net metering system is a customer-generator's responsibility. DP&L requests the Commission provide the electric utilities with flexibility to communicate and provide data to their customers. We agree. The electric utilities should be provided flexibility to communicate with their customers to ensure that net metering facilities are properly sized. It is in the electric utilities' best interests to ensure that customer-generators properly size their facilities so they do not generate in excess of their requirements. However, we must ensure that customers have the information they need to properly size their net metering facilities. Therefore, we find it is reasonable to require the electric utilities to provide consumption data or a consumption estimate to customers to assist them with properly sizing their net metering facilities. Accordingly, we find that the electric utilities shall provide to customers upon request either a reasonable estimate of the annual electricity consumption for the customer's premises or the actual average annual electricity supplied to the premises; customers may then rely upon this data or estimate when sizing their net metering facilities. Additionally, the electric utilities may use an online web portal to provide consumption estimates to customers intending to

build net metering facilities, but we make no such requirement in this proceeding. Instead, we find OCC's request for us to require the electric utilities to implement an online portal for customers should be addressed in an ESP or more appropriate proceeding.

VIII. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(7)(b)

{¶ 31} In Ohio Adm.Code 4901:1-10-28(B)(7)(b), the proposed rule contained a size limit for net metering facilities such that they could not exceed 120 percent of the customer-generator's requirements for electricity at the time of interconnection.

{¶ 32} Duke asserts that allowing customer-generators to size their net metering systems at 120 percent of their requirements could present distribution engineering problems on the utilities' electric distribution facilities. FirstEnergy argues that allowing customer-generators to size their net metering systems at 120 percent of their requirements for electricity violates the requirement in R.C. 4928.01(A)(31)(d) that customer-generators must intend primarily to offset part or all of their requirements for electricity. AEP Ohio asserts that the 120 percent requirement should be continuous, such that customer-generators must not generate in excess of 120 percent of their requirements for electricity on a going-forward basis. The electric utilities each agree that net metering facilities should be sized at 100 percent of a customer-generator's requirements for electricity. However, because R.C. 4928.01(A)(31)(d) is based upon the intent of the customer-generator, the Environmental Advocates assert that no size limit should be established. In reply comments, Direct Energy supports the proposals by Duke, FirstEnergy, and AEP Ohio, and argues that the size requirement should apply to both electric utilities and CRES providers. However, the Environmental Advocates, OCC, and IGS support the 120 percent limit on excess generation.

{¶ 33} The Commission finds that customer-generators must size their facilities so as not to exceed 120 percent of their requirements for electricity, which will be determined once, at the time of interconnection. This requirement shall apply regardless of whether

the customer-generator is taking service from the electric utility or a CRES provider. Since the limit is applied at the time of interconnection, and interconnection is a process conducted by the electric utilities, the facility size limit will necessarily be applied to all facilities, regardless of whether the customer-generator is shopping for electric service with a CRES provider.

{¶ 34} Since there may be annual fluctuations in electricity usage, and the Commission has provided flexibility to the electric utilities in providing consumption estimates to customers, the Commission finds it reasonable to set the size limit for net metering facilities at 120 percent of a customer-generator's requirements for electricity, as determined at the time of interconnection. Additionally, we note this is consistent with R.C. 4928.01(A)(31)(d), which requires that customer-generators must intend primarily to offset part or all of their requirements for electricity, but does not prohibit generating more than their requirements so long as the primary intent is only to offset their requirements. Further, R.C. 4928.02(C), (D), (F), (G), (J), (K), and (N), provide that it is the policy of this state to *encourage* implementation of distributed generation through net metering. Therefore, we find that a straightforward limit of 120 percent, as determined at the time of interconnection, should be applied to all net metering systems. Customers that intend to construct a facility that would generate in excess of 120 percent of their requirements for electricity may contact their electric utility to determine if there is a means to do so apart from the utility's standard net metering tariff as contemplated in R.C. 4928.67.

{¶ 35} Additionally, since the 120 percent size limit on new net metering facilities will be applied at the time of interconnection, the electric utilities shall apply this requirement on a going-forward basis only, since existing facilities have already successfully completed the interconnection process. Any existing customer-generator intending to expand the size of its net metering facility shall file an application with its

electric utility demonstrating that the expanded facility will not generate in excess of 120 percent of the customer-generator's requirements for electricity.

IX. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(8)

{¶ 36} Under proposed Ohio Adm.Code 4901:1-10-28(B)(8), if a customer-generator's meter is incapable of measuring the flow of electricity in each direction, then the customer-generator should have the option of having either a traditional meter or an advanced meter installed.

{¶ 37} TASC asserts that the Commission should adopt a deadline for the electric utility to provide cost estimates on installing a traditional meter or an advanced meter. In reply comments, DP&L and FirstEnergy oppose TASC's proposal, as there has been no indication that the electric utilities have ever provided cost estimates that were untimely, problematic, or in any way justifying the imposition of potentially costly and burdensome deadlines.

{¶ 38} Duke and FirstEnergy assert that the cost of installing a new meter in order to facilitate net metering should be paid by the customer-generator. Duke also requests clarification on the Commission's intent as it relates to installing advanced meters in Ohio Adm.Code 4901:1-10-28(B)(8). OCC, however, insists that consumers should not be burdened with additional expenses, which could present a barrier to potential distributed generation customers. Similarly, IGS asserts that customer-generators who pay to have an advanced meter installed should be exempted from paying riders related to advanced meter deployment. In reply comments, FirstEnergy and DP&L note that advanced metering capability and advanced metering riders include far more than just the cost of an advanced meter itself.

{¶ 39} Initially, the Commission finds that TASC's proposal for the Commission to implement a time limit for the utilities to provide cost estimates to customers should not be adopted. The Commission expects the electric utilities to provide cost estimates

to customers within a reasonable period of time. However, there is no indication in the record that the electric utilities do not already respond to customers in a reasonable amount of time. Additionally, the Commission finds that the costs of installing a new meter, or replacing an existing meter with an advanced meter, should be paid by customer-generators. However, the manner in which a customer-generator pays for a new advanced meter depends on the customer-generator's location within the electric utility's service territory. If the customer-generator is located in an area where advanced meters are being deployed, then the customer-generator will pay for the new meter exclusively through the utility's smart grid rider. However, if the customer-generator is located in an area that is not designated for advanced meter deployment, then the electric utility may charge the customer-generator for installation of the advanced meter.

{¶ 40} We note that additional infrastructure and administrative support are required to deploy advanced meters, particularly in areas where a smart grid program has not yet established an actual smart grid. The Commission's intent is to provide customer-generators in areas where advanced meters are not being deployed the opportunity to have an advanced meter installed at their own expense, before they would otherwise receive an advanced meter through the electric utility's smart grid program.

X. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(9) - CREDIT RATE

{¶ 41} Regarding Ohio Adm.Code 4901:1-10-28(B)(9), the proposed rule provided that when an electric utility receives more electricity than it supplies to the customer-generator over a monthly billing cycle, the excess electricity should be converted to a monetary credit at the electric utility's standard service offer rate. This monetary credit would then carry forward to be applied to future months' bills, consistent with R.C. 4928.67(B)(3)(b).

{¶ 42} In their initial comments, the electric utilities were opposed to using the standard service offer rate to compensate customer-generators for excess generation. FirstEnergy, Duke, and AEP Ohio argued the Commission should use the unbundled

generation cost or the energy-only component of the electric utility's standard service offer. They argue that a finding otherwise would violate the Ohio Supreme Court's holding in *FirstEnergy v. PUC*, 95 Ohio St.3d 401, 2002-Ohio-2430, 768 N.E.2d 648.

{¶ 43} However, the Environmental Advocates proposed the Commission use a kWh credit rollover, which has been successfully used in numerous other states. The Environmental Advocates note that a kWh credit would ensure that customers are credited for all generation components of their bills, including all generation riders and surcharges.

{¶ 44} Finally, OMAEG asserts that shopping customers and non-shopping customers should receive the same compensation and that proposed Ohio Adm.Code 4901:1-10-28(B)(9)(c) be eliminated altogether. OMAEG notes that under the proposed rule, shopping customers may not receive compensation for their excess generation at all. OMAEG proposes that shopping customers be guaranteed compensation for their excess generation.

{¶ 45} The Commission finds that the credit for excess generation for customer-generators on the utility's standard net metering tariff shall be a monetary credit calculated at the energy-only component of the electric utility's SSO and applied to a customer-generator's total bill. As Duke points out in its reply comments, the electric utilities must maintain capacity in order to meet customer demand at peak usage. However, customer-generators may generate electricity at times of peak demand, and with advanced meters capable of measuring hourly interval usage data, these peak load contributions should be incorporated into a customer-generator's bill. Accordingly, customer-generators using advanced meters should receive the benefit of their peak load contributions in the form of lower bills for electric service, instead of in the form a higher credit for excess generation.

{¶ 46} Additionally, the Commission disagrees with OMAEG that customer-generators are not guaranteed compensation for their excess generation. Customer-generators are guaranteed the opportunity to receive compensation for their excess generation through the electric utility's standard net metering tariff. If a customer-generator chooses to shop for electricity from a CRES provider, then the customer-generator should compare multiple offers and consider both the rate for competitive retail electric service as well as the offered compensation for excess generation. If a CRES provider offers no compensation for excess generation, as OMAEG points out is possible, then the customer-generator may shop with another CRES provider that will provide better compensation for excess generation or take service through its electric utility's standard service offer.

**XI. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(9) -
CONTINUOUS MONETARY CREDIT ROLLOVER**

{¶ 47} In the proposed revisions to Ohio Adm.Code 4901:1-10-28(B)(9), the monetary credit for excess generation would carry forward for a period of 36 months and be applied to customer-generator bills on a first-in, first-out basis. However, Duke seeks clarification on the proposed rule and notes that its billing system may not be capable of implementing the proposed rule.

{¶ 48} The Commission finds that the monetary credit for excess generation shall be applied to future months' bills and continuously carry forward with no refunds. The Commission does not expect monetary credit balances to become excessive since net metering systems will be sized at or less than 120 percent of the customer-generator's annual requirements for electricity. This should prevent significant excess generation and the accrual of large credit balances. However, the Commission directs the electric utilities to monitor the monetary credit balances to determine if they become excessive and, if they do, to work with the Commission's Staff on a proposal to prevent monetary credit balances from becoming excessive.

XII. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(9)(c) - BILLING

{¶ 49} FirstEnergy, DP&L, and AEP Ohio assert that CRES providers should be required to notify the electric utility when they enter into a net metering contract with a customer-generator. The electric utilities assert the rule should allow them to then move the customer-generator to bill-ready billing, so long as the CRES provider and the customer-generator have not elected to use dual billing.

{¶ 50} The Commission finds that the proposal by the electric utilities should be adopted. A CRES provider must notify the electric utility if it enters into a net metering contract with a customer-generator. Additionally, the electric utilities should be permitted to automatically move customer-generators to bill-ready billing, so long as the CRES provider and the customer-generator have not agreed to dual billing.

XIII. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(9) - COST RECOVERY

{¶ 51} FirstEnergy, DP&L, Duke, and AEP Ohio argue the rule should explicitly allow the electric utilities to recover costs associated with net metering. Duke and DP&L assert they are not capable of performing many of the functions necessary to accommodate net metering without upgrading their billing systems.

{¶ 52} The Commission finds the electric utilities should be provided the opportunity to file an application with the Commission for the deferral of costs of providing customer credits from net metering. The electric utilities may file an application to recover the deferred costs of providing net metering in base distribution rates, or through some other appropriate rider or mechanism, and the Commission will consider the application. Nothing in Ohio Adm.Code 4901:1-10-28 prohibits the electric utilities from filing an application with the Commission for cost recovery. However, the Commission will not establish such a mechanism in the rule, particularly since no specific cost recovery mechanism is included in R.C. 4928.67.

XIV. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(9)(d) - INTERVAL DATA

{¶ 53} In the proposed revisions to Ohio Adm.Code 4901:1-10-28(B)(9)(d), the electric utilities would be required to transmit to CRES providers interval data for the billing period before issuing bills to customers. Additionally, the electric utilities would be required to transmit to CRES providers the customer-generators' daily interval usage data within 24 hours.

{¶ 54} DP&L, AEP Ohio, and FirstEnergy recommend the Commission revise the rule so that the electric utilities may make the interval data available, without actually being required to transmit it. The electric utilities each note that a web portal could make the data available to CRES providers, which would eliminate the need for the electric utilities to transmit the data. Additionally, AEP Ohio asserts the requirement to provide interval data for a billing period be revised to within 24 hours after performing industry-standard validation, estimation, and editing processes.

{¶ 55} The Commission finds the proposal by the electric utilities should be adopted and they should be permitted to make interval data available to CRES providers through a web portal. Additionally, the Commission finds that AEP Ohio's proposal is reasonable and the electric utilities should be provided the opportunity to conduct industry-standard validation, estimation, and editing processes before providing the data to the CRES providers.

XV. COMMENTS ON OHIO ADM.CODE 4901:1-10-28(B)(10)

{¶ 56} The proposed rule at Ohio Adm.Code 4901:1-10-28(B)(10) provides that in no event shall an electric utility impose on customer-generators any charges that relate to the electricity the customer-generator supplies back to the distribution system. DP&L requests the Commission clarify that this does not prohibit the electric utilities from filing liability claims against customer-generators if a customer-generator causes physical interruption of service or damages to the electric utility's equipment due to overloading

or exceeding other engineering standards. However, in reply comments, OCC asserts that DP&L's concerns fall under the scope of the Commission's interconnection rules in Ohio Adm.Code Chapter 4901:1-22.

{¶ 57} The Commission agrees with OCC. DP&L's request falls squarely under the scope of the Commission's interconnection rules in Ohio Adm.Code Chapter 4901:1-22. The very purpose of Ohio Adm.Code Chapter 4901:1-22 is to prevent distributed generation from causing service interruptions or damage to a utility's distribution system.

XVI. COMMENTS REGARDING HOSPITAL NET METERING

{¶ 58} DP&L, Duke, and FirstEnergy assert that hospital customer-generators should have the same ability to shop for competitive retail electric service as other net metering customers. Additionally, they argue that a separate section of the rule specifically for hospitals is unnecessary.

{¶ 59} The Commission agrees with DP&L, Duke, and FirstEnergy that a separate section of the rule for hospital customer-generators is unnecessary. Accordingly, the Commission incorporates the provisions of the rule that apply to hospital net metering and standard net metering. The primary differences between the standard net metering tariffs and hospital net metering tariffs in R.C. 4928.67 are that hospital net metering tariffs shall be based upon the market value of the customer-generated electricity at the time it is generated and hospital customer-generators may operate their electric generating facility individually or collectively without any wattage limitation on size. Additionally, the Commission agrees with DP&L, Duke, and FirstEnergy that hospitals should have the same opportunity to shop for competitive retail electric service, as well as for net metering service, and to compare net metering offers that may be offered by CRES providers.

XVII. CONCLUSION

{¶ 60} In making its rules, the agency is required to consider the continued need for the rules, the nature of any complaints or comments received concerning the rules, and any factors that have changed in the subject matter area affected by the rules. The Commission has evaluated Ohio Adm.Code 4901:1-10-28 and recommends amending the rule as demonstrated in the attachment to this Order.

{¶ 61} An agency must also demonstrate that it has included stakeholders in the development of the rule, that it has evaluated the impact of the rule on businesses, and that the purpose of the rule is important enough to justify the impact. The agency must seek to eliminate excessive or duplicative rules that stand in the way of job creation. The Commission has included stakeholders in the development of these rules and has sought to eliminate excessive or duplicative rules that stand in the way of job creation.

{¶ 62} Accordingly, at this time, the Commission finds that amendments to Ohio Adm.Code 4901:1-10-28 should be filed with the Joint Committee on Agency Rule Review (JCARR), the Secretary of State, and the Legislative Service Commission (LSC). We also recognize that, when the Commission files this rule, the existing Ohio Adm.Code 4901:1-10-28 will be rescinded and the rule as proposed in the attachment will be filed as a new rule in order to comply with JCARR and LSC requirements. In order to avoid needless production of paper copies, the Commission will serve a paper copy of this Order only and will make the rule, as well as the business impact analysis, available online at the Commission's website: www.puco.ohio.gov/puco/rules. All interested persons may download the rule and the business impact analysis from the above website, or contact the Commission's Docketing Division to be sent a paper copy.

{¶ 63} The Commission acknowledges that, in an Entry issued November 18, 2015, we had previously stated an intention to hold a public forum regarding net metering and energy storage with stakeholders. In the interim, however, the Commission has embraced net metering considerations in its PowerForward initiative. Additional

feedback regarding net metering can be advanced by stakeholders and considered by the Commission during Phase 3 of PowerForward. Accordingly, the Commission finds that the public forum contemplated by the November 18, 2015 Entry has been subsumed by the PowerForward initiative and need not be separately held under this rule-review docket.

XVIII. ORDER

{¶ 64} It is, therefore,

{¶ 65} ORDERED, That amended Ohio Adm.Code 4901:1-10-28 be adopted. It is, further,

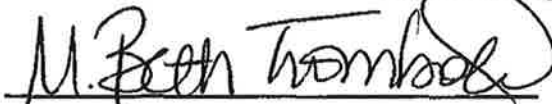
{¶ 66} ORDERED, That the existing Ohio Adm.Code 4901:1-10-28 be rescinded consistent with Joint Committee on Agency Rule Review and Legislative Service Commission requirements. It is, further,

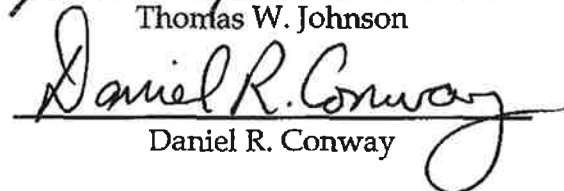
{¶ 67} ORDERED, That the adopted new rule be filed with the Joint Committee on Agency Rule Review, the Secretary of State, and the Legislative Service Commission, in accordance with Divisions (D) and (E) of R.C. 111.15. It is, further,

{¶ 68} ORDERED, That the final rules be effective on the earliest date permitted by law. Unless otherwise ordered by the Commission, the next five-year review date for Ohio Adm.Code Chapter 4901:1-10-28 shall be in compliance with R.C. 106.03. It is, further,

{¶ 69} ORDERED, That a copy of this Entry be served upon all electric utilities in the state of Ohio, all certified competitive retail electric service providers in the state of Ohio, the Electric-Energy industry list-serve, and all other interested persons of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO

Asim Z. Haque, Chairman
M. Beth Trombold
Thomas W. Johnson

Lawrence K. Friedeman
Daniel R. Conway

PAS/sc

Entered in the Journal

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Secretary

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4901:1-10-28 Net metering.

(A) For purposes of this rule, the following definitions shall apply:

- (1) "Advanced meter" means any electric meter that meets the pertinent engineering standards using digital technology and is capable of providing two-way communications with the electric utility to provide usage and/or other technical data.
- (2) "CRES provider" shall mean any provider of competitive retail electric service.
- (3) "Customer-generator" shall have the meaning set forth in section 4928.01(A)(29) of the Revised Code. A customer that hosts or leases third party owned generation equipment on its premises is considered a customer-generator.
- (4) "Electric utility" shall have the meaning set forth in section 4928.01(A)(11) of the Revised Code.
- (5) "Hospital" shall have the meaning set forth in section 3701.01(C) of the Revised Code.
- (6) "Interval meter" means any electric meter that is capable of measuring interval usage data on at least an hourly basis.
- (7) "Microturbine" shall mean a turbine or an integrated modular turbine package with a capacity of two megawatts or less.
- (8) "Net metering" shall have the meaning set forth in section 4928.01(A)(30) of the Revised Code.
- (9) "Net metering system" shall have the meaning set forth in section 4928.01(A)(31) of the Revised Code. Net metering system includes all facilities, regardless of whether the customer-generator is on the electric utility's net metering tariff or engaged in net metering with a CRES provider.
- (10) "Third party" means a person or entity that may be indirectly involved or affected but is not a principal party to an arrangement, contract, or transaction between other parties.

(A)(B) Standard nNet metering.

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- (1) Each electric utility shall develop a standard net metering tariff and a hospital net metering tariff. The electric utility shall make such tariffs ~~tariff for net metering~~. Such ~~tariff shall be made available to qualifying customer customer-generators~~ upon request, in a timely manner, and on a nondiscriminatory basis.
- (a) Each electric utility shall offer a standard net metering tariff to all customers taking service under the electric utility's standard service offer.
- (b) Each electric utility shall offer the hospital net metering tariff to all qualifying hospital customers upon request.
- (c) A CRES provider may offer net metering contracts to its customers, consistent with Chapter 4901:1-21 of the Administrative Code, at any price, rate, credit, or refund for excess generation. The CRES provider and the customer shall define the terms of any contract, including the price, rate, credit, or refund for any excess production by a customer-generator. A CRES provider is not required to enter into any net metering contract with any customer. Only customers who have signed an interconnection agreement with the electric utility may engage in net metering with a CRES provider.
- ~~(a) A qualifying customer generator is one whose generating facilities are:~~
- ~~(i) Fueled by solar, wind, biomass, landfill gas, or hydropower, or use a microturbine or a fuel cell.~~
 - ~~(ii) Located on a customer generator's premises.~~
 - ~~(iii) Operated in parallel with the electric utility's transmission and distribution facilities.~~
 - ~~(iv) Intended primarily to offset part or all of the customer generator's electricity requirements.~~
- ~~(b) Net metering arrangements shall be made available regardless of the date the customer's generating facility was installed.~~
- (2) Except as used by hospitals, a net metering system must use as its fuel either solar, wind, biomass, landfill gas, or hydropower, or use a microturbine or a fuel cell.

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- (3) Net metering arrangements shall be made available regardless of the date the customer-generator's net metering system was installed.
- (2)(4) The electric utility's standard net metering tariff ~~for net metering~~ shall be identical in rate structure, all retail rate components, and any monthly charges, to the tariff to which the same customer would be assigned if that customer were not a ~~customer generator~~ customer-generator. Such terms shall not change simply because a customer becomes a ~~customer generator~~ customer-generator.
- (a) The electric utility shall disclose on the electric utility's website, and to any customer upon request, the name, address, telephone number, and email address of the electric utility's net metering department or contact person.
- (b) The electric utility shall provide on the electric utility's website, and to any customer upon request, all necessary information regarding eligibility for the electric utility's net metering tariffs. The electric utility shall also provide this information to any customer, upon request, within a net metering application packet. The website and application packet shall describe and provide the following information in a straightforward manner: net metering tariff terms and conditions, sample net metering and interconnection agreements, and the terms and conditions for eligibility to be a net metering customer-generator. The website and application packet shall also provide information on costs that the customer may incur as a result of net metering enrollment, including any costs associated with the following: application, interconnection, and meter installation. The electric utility shall also disclose that customer-generators who shop for competitive retail service will be removed from the electric utility's net metering tariff and will not be credited by the electric utility for excess generation.
- (3)(5) ~~No~~ The electric utility's net metering tariffs ~~for net metering~~ shall not require ~~customer-generators~~ customer-generators to:
- (a) Comply with any additional safety or performance standards beyond those established by rules in Chapter 4901:1-22 of the Administrative Code, and the "National Electrical Code," the "Institute of Electrical and Electronics Engineers," and "Underwriters Laboratories," in effect as set forth in rule 4901:1-22-03 of the Administrative Code.
- (b) Perform or pay for additional tests beyond those required by paragraph (A)(3)(a)(B)(5)(a) of this rule.

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- (c) Purchase additional liability insurance beyond that required by paragraph ~~(A)(3)(a)(B)(5)(a)~~ of this rule.
- (6) A net metering system must be located on the customer-generator's premises. A customer-generator's premises is the area that is owned, operated, or leased by the customer-generator with the metering point for the customer-generator's account. A contiguous lot to the area with the customer generator's metering point may be considered the customer-generator's premises, so long as it would not create an unsafe or hazardous condition as determined by the electric utility on a case-by-case basis.
- (7) Unless it is a hospital, a customer-generator must intend primarily to offset part or all of the customer-generator's requirements for electricity, regardless of whether the customer-generator is on the electric utility's net metering tariff or engaged in net metering by contract with a CRES provider.
- (a) The electric utility shall communicate with and assist a customer-generator in calculating the customer-generator's requirements for electricity based on the average amount of electricity supplied by the electric utility to the customer-generator annually over the previous three years. In instances where the electric utility cannot provide data without divulging confidential or proprietary information, or in circumstances where the electric utility does not have the data or cannot calculate the average annual electricity supplied to the premises over the previous three years due to new construction, vacant properties, facility expansions, or other unique circumstances, the electric utility shall use any available consumption data or measures to establish an appropriate consumption estimate. Upon request from any customer-generator, the electric utility shall provide or make available to the customer-generator either the average electricity supplied to the premises over the previous three years or a reasonable consumption estimate for the premises.
- (b) A customer-generator must size its facilities so as to not exceed one hundred and twenty percent of its requirements for electricity at the time of interconnection, regardless of whether the customer-generator intends to take service through an electric utility's standard service offer or a CRES provider.
- ~~(4)(8)~~ Net metering shall be accomplished using a single meter capable of registering the flow of electricity in each direction. ~~A customer's existing single register meter that is capable of registering the flow of electricity in both directions satisfies this requirement. If the customer's existing electrical meter is not capable of measuring~~

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the flow of electricity in two directions, the electric utility, upon written request from the customer, shall install at the customer's expense a meter that is capable of measuring electricity flow in two directions. Upon request from a customer-generator, the electric utility shall provide the customer-generator with a detailed cost estimate of installing an interval meter. If the net metering system is located in an area where advanced meters have been deployed or are proposed to be deployed within 12 months, then the electric utility shall provide the customer-generator with a detailed cost estimate of installing an advanced meter that is also an interval meter.

(a) If a customer-generator requests an advanced meter that is also an interval meter, then such cost shall be paid by the customer-generator through the applicable smart grid rider. If the net metering system is not located in an area where the electric utility has deployed, is deploying, or proposes to deploy within 12 months advanced meters, then the electric utility may install any interval meter.

(b) The electric utility, at its own expense and with the written consent of the customer-generator, may install one or more additional meters to monitor the flow of electricity in each direction. No electric utility shall impose, without commission approval, any additional interconnection requirement or additional charges on customer-generators refusing to give such consent.

(c) If a customer's existing meter needs to be reprogrammed for the customer to become a customer-generator, or to accommodate net metering, then the electric utility shall provide the customer-generator a detailed cost estimate for the reprogramming or setup of the existing meter. The cost of setting up the meter to accommodate net metering shall be at the customer's expense. If a customer-generator has a meter that is capable of measuring the flow of electricity in each direction, is sufficient for net metering, and does not require setup or reprogramming, then the customer-generator shall not be charged for a new meter, setup, or reprogramming to accommodate net metering.

(d) For hospital customer-generators, net metering shall be accomplished using either two meters or a single meter with two registers that are capable of separately measuring the flow of electricity in both directions. One meter or register shall be capable of measuring the electricity generated by the hospital at the output of the generator or net of the hospital's load behind the meter at the time it is generated. If the hospital's existing electric meter is not capable of separately measuring electricity the hospital generates at the time it is generated, the electric utility, upon written

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request from the hospital, shall install at the hospital's expense a meter that is capable of such measurement.

- (5) ~~The electric utility, at its own expense and with the written consent of the customer generator, may install one or more additional meters to monitor the flow of electricity in each direction. No electric utility shall impose, without commission approval, any additional interconnection requirement or additional charges on customer generators refusing to give such consent.~~
- (6)(9) The measurement of net electricity supplied or generated supplied by the electric utility or received from the customer-generator shall be calculated in the following manner:
- (a) The electric utility shall measure the net electricity produced or consumed during the billing period, in accordance with normal metering practices.
 - (b) If the electricity supplied by the electric utility exceeds the electricity received from the customer-generator over the monthly billing cycle, then the customer-generator shall be billed for the net electricity consumed by it in accordance with normal metering practices.
 - (c) For customer-generators on the electric utility's standard net metering tariff, when the electric utility receives more electricity from the customer-generator than it supplied to the customer-generator over a monthly billing cycle, the excess electricity shall be converted to a monetary credit at the energy component of the electric utility's standard service offer and shall continuously carry forward as a monetary credit on the customer-generator's future bills. The electric utility shall not be required to pay the monetary credit, other than to credit it to future bills, and the monetary credit may be lost if a customer-generator does not use the credit or stops taking service under the electric utility's standard service offer.
 - (d) The hospital net metering tariff shall be based upon the rate structure, rate components, and any charges to which the hospital would otherwise be assigned if the hospital were not a customer-generator and upon the market value of the customer-generated electricity at the time it is generated. The market value means the locational marginal price of energy determined by a regional transmission organization's operational market at the time the customer-generated electricity is generated.

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- (e) A CRES provider may offer a net metering contract at any price, rate, or manner of credit for excess generation. The CRES provider shall notify the electric utility whenever a net metering contract has been entered into with a customer-generator. The electric utility may move the customer-generator to bill-ready billing, unless the CRES provider and the customer-generator agree to dual billing.
- (f) If a customer-generator is net metering with a CRES provider and uses an advanced meter capable of measuring at least hourly interval usage data, the electric utility shall transmit or make available to the CRES provider the customer-generator's interval data for that billing period within 24 hours of performing industry-standard validation, estimation, and editing processes. The electric utility shall also transmit or make available to the CRES provider the customer-generator's daily interval usage data within 24 hours of performing daily industry-standard validation, estimation, and editing processes.
- (g) The electric utility shall at least annually calculate and provide or make available to the CRES provider the individual network service peak load values and peak load contributions of customer-generators engaged in net metering with that CRES provider.
- (h) The electric utility shall ensure that any final settlement data sent to a regional transmission organization includes negative loads in the hourly load calculation of any electricity provided to a CRES provider from its customer-generators with hourly interval metering. Load from a customer-generator shall be incorporated in the CRES provider's total hourly energy obligation reported to the regional transmission organization and will offset the CRES provider's reported load to the regional transmission organization. For customer-generators with non-hourly metering, customer generation will offset the CRES provider's energy obligation.
- ~~(b) If the electric utility supplies more electricity than the customer generator feeds back to the system in a given billing period, the customer generator shall be billed for the net electricity that the electric utility supplied, as measured in accordance with normal metering practices.~~
- ~~(c) If the customer generator feeds more electricity back to the system than the electric utility supplies to the customer generator, only the excess generation component shall be allowed to accumulate as a credit until netted against the customer generator's bill, or until the customer generator requests in writing a~~

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~~refund that amounts to, but is no greater than, an annual true-up of accumulated credits over a twelve month period.~~

- ~~(7)~~(10) In no event shall the electric utility impose on the ~~customer generator~~ customer-generator any charges that relate to the electricity the ~~customer generator~~ customer-generator feeds back to the system.
- (11) All customer-generators shall comply with the interconnection standards set forth in Chapter 4901:1-22 of the Administrative Code.
- (12) Renewable energy credits associated with a customer-generator's net metering facility shall be the property of the customer-generator unless otherwise contracted with an electric utility, CRES provider, or other entity.
- (13) The electric utility shall annually report to the commission the total number and installed capacity of customer-generators on the electric utility's net metering tariffs for each technology and consumer class. The electric utility shall provide any other net metering data to the commission upon request and in a timely manner.

~~(B) Hospital net metering.~~

- ~~(1) Each electric utility shall develop a separate tariff providing for net metering for hospitals. Such tariff shall be made available to qualifying hospital customers upon request.~~
- ~~(a) As defined in section 3701.01 of the Revised Code, "hospital" includes public health centers and general, mental, chronic disease, and other types of hospitals, and related facilities, such as laboratories, outpatient departments, nurses' home facilities, extended care facilities, self care units, and central service facilities operated in connection with hospitals, and also includes education and training facilities for health professions personnel operated as an integral part of a hospital, but does not include any hospital furnishing primarily domiciliary care.~~
- ~~(b) A qualifying hospital customer generator is one whose generating facilities are:~~
- ~~(i) Located on a customer generator's premises.~~
 - ~~(ii) Operated in parallel with the electric utility's transmission and distribution facilities.~~

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- ~~(2) Net metering arrangements shall be made available regardless of the date the hospital's generating facility was installed.~~
- ~~(3) The tariff shall be based both upon the rate structure, rate components, and any charges to which the hospital would otherwise be assigned if the hospital were not taking service under this rule and upon the market value of the customer-generated electricity at the time it is generated. For purposes of this rule, market value means the locational marginal price of energy determined by a regional transmission organization's operational market at the time the customer-generated electricity is generated.~~
- ~~(4) For hospital customer generators, net metering shall be accomplished using either two meters or a single meter with two registers that are capable of separately measuring the flow of electricity in both directions. One meter or register shall be capable of measuring the electricity generated by the hospital at the time it is generated. If the hospital's existing electrical meter is not capable of separately measuring electricity the hospital generates at the time it is generated, the electric utility, upon written request from the hospital, shall install at the hospital's expense a meter that is capable of such measurement.~~
- ~~(5) The tariff shall allow the hospital customer generator to operate its electric generating facilities individually or collectively without any wattage limitation on size.~~
- ~~(6) The hospital customer generator's net metering service shall be calculated as follows:
 - ~~(a) All electricity flowing from the electric utility to the hospital shall be charged as it would have been if the hospital were not taking service under this rule.~~
 - ~~(b) All electricity generated by the hospital shall be credited at the market value as of the time the hospital generated the electricity.~~
 - ~~(c) Each monthly bill shall reflect the net of paragraphs (B)(6)(a) and (B)(6)(b) of this rule. If the resulting bill indicates a net credit dollar amount, the credit shall be netted against the hospital customer generator's bill until the hospital requests in writing a refund that amounts to, but is no greater than, an annual true-up of accumulated credits over a twelve-month period.~~~~
- ~~(7) No electric utility's tariff for net metering shall require hospital customer generators to:~~

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- ~~(a) Comply with any additional safety or performance standards beyond those established by rules in Chapter 4901:1-22 of the Administrative Code, and the National Electrical Code, the institute of electrical and electronics engineers, and underwriters laboratories, in effect as set forth in rule 4901:1-22-03 of the Administrative Code.~~
- ~~(b) Perform or pay for additional tests beyond those required by paragraph (B)(7)(a) of this rule.~~
- ~~(c) Purchase additional liability insurance beyond that required by paragraph (B)(7)(a) of this rule.~~
- ~~(8) In no event shall the electric utility impose on the hospital customer generator any charges that relate to the electricity the customer generator feeds back to the system.~~

THE PUBLIC UTILITIES COMMISSION OF OHIO

**IN THE MATTER OF THE COMMISSION'S
REVIEW OF CHAPTER 4901:1-10 OF THE
OHIO ADMINISTRATIVE CODE.**

CASE NO. 12-2050-EL-ORD

FIFTH ENTRY ON REHEARING

Entered in the Journal on December 19, 2018

I. SUMMARY

{¶ 1} In this Fifth Entry on Rehearing, the Commission grants, in part, and denies, in part, the applications for rehearing filed by One Energy Enterprises, LLC, and Interstate Gas Supply, Inc. The Commission denies all other applications for rehearing filed in this proceeding.

II. DISCUSSION

{¶ 2} R.C. 111.15(B) and R.C. 106.03(A) require all state agencies to conduct a review of their rules every five years to determine whether those rules should be continued without change, be amended, or be rescinded. Currently, the Commission is reviewing the net metering rules contained in Ohio Adm.Code 4901:1-10-28.

{¶ 3} On November 8, 2017, the Commission issued a Finding and Order (November 2017 Order) amending the net metering rules contained in Ohio Adm.Code 4901:1-10-28.

{¶ 4} Pursuant to R.C. 4903.10, any party who has entered an appearance in a Commission proceeding may apply for rehearing with respect to any matters determined in that proceeding by filing an application within 30 days after the Commission's order is journalized. Any party may file a memorandum contra to an application for rehearing within ten days after its filing. Ohio Adm.Code 4901-1-35.

{¶ 5} On December 8, 2017, the Ohio Consumers' Counsel (OCC); Interstate Gas Supply, Inc. (IGS); The Environmental Law & Policy Center, Ohio Environmental Council, Environmental Defense Fund, Natural Resources Defense Council, and Vote Solar (collectively, Environmental Advocates or Advocates); One Energy Enterprises, LLC (One Energy); and Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, FirstEnergy) filed applications for rehearing of the Commission's November 2017 Order. The Environmental Advocates, One Energy, the Dayton Power and Light Company (DP&L), IGS, and FirstEnergy, who submitted jointly with the Ohio Power Company (AEP), filed memoranda contra the applications for rehearing.

{¶ 6} As scheduled by an Entry dated December 21, 2017, the Commission heard oral arguments on the issues raised by the various parties on rehearing on January 10, 2018.

III. DISCUSSION

{¶ 7} On rehearing, the parties submit a wide range of arguments regarding five main topics, with OCC offering three miscellaneous assignments of error. Some arguments challenge the Commission's adopted rules, some challenge language in the November 2017 Order, and some challenge a combination of the two. To the extent that any assignment of error is not specifically addressed in the foregoing discussion, it is deemed denied.

A. Sizing of Microturbines (Ohio Adm.Code 4901:1-10-28(A)(7)) and of Net Metering Systems (Ohio Adm.Code 4901:1-10-28(B)(7)(b)).

{¶ 8} In its application for rehearing, FirstEnergy takes aim at two aspects of the net metering rules related to size: the definition of a microturbine and the permissible size of a customer-generator's net metering facility. As to the former, FirstEnergy contends that adopted Rule 4901:1-10-28(A)(7), in which a microturbine is defined as

having a capacity of up to two megawatts, is unjust and unlawful because it exceeds a reasonable interpretation of the underlying statute. Here, FirstEnergy restates its position taken during the comment period: because R.C. 4928.01(A)(31)(a) distinguishes a “microturbine” from other types of combustion engines eligible for net metering, because the Commission originally limited the capacity of a microturbine to 100 kilowatts (kW), and because the General Assembly has not amended the statute in the interim, it is error to adopt a two-megawatt capacity ceiling. Adding that “reliable current industry sources” put the upper range for a microturbine at 250 kW to 500 kW, FirstEnergy asserts that the Commission has acted capriciously in defining microturbine and deems the Commission’s justification for doing so faulty. FirstEnergy criticizes as illogical the Commission’s reasoning that a two-megawatt microturbine would generally qualify for Level 2 expedited review procedure for interconnection and would thus promote the implementation of distributed generation across customer classes, as encouraged in R.C. 4928.02(K). FirstEnergy also rejects any notion that the definitional size of a microturbine is a secondary size limit due to the requirement that a customer-generator must intend primarily to offset part or all of its requirements for electricity when sizing its facility.

{¶ 9} FirstEnergy also critiques adopted Rule 4901-10-28(B)(7)(b) as unreasonable and unlawful because it allegedly allows a customer-generator to intentionally generate in excess of its annual requirements for electricity. FirstEnergy states that, in allowing a customer-generator to size its net metering system so as to not exceed 120 percent of its requirements for electricity at the time of interconnection, the Commission has clearly exceeded its statutory bounds. FirstEnergy asserts that no reasonable interpretation of R.C. 4928.01(31)(d) supports a net metering facility deliberately sized at more than one hundred percent of a customer-generator’s requirement for electricity. Anything more, in FirstEnergy’s opinion, is clearly intended to be more than all or part of the requirements.

{¶ 10} Both IGS and the Environmental Advocates address FirstEnergy's sizing arguments in their memoranda contra rehearing. As to the first argument, IGS points out that R.C. Chapter 4928 does not define microturbine and, in fact, only references the term once (as an allowable fuel source); therefore, the Commission enjoys wide latitude to rely on its own expertise and state policy to define that term, which it did in referencing R.C. 4928.02(K) in its discussion of the amended rule. IGS additionally supports the Commission's reference to the interconnection rules in defining the size of a microturbine as a further indication of the Commission's exercise of its discretion and expertise to further state policy of making distributed generation less burdensome.

{¶ 11} IGS also argues, as do the Advocates, that FirstEnergy's argument to limit net metering systems to a strict one hundred percent of a customer-generator's requirements for electricity lacks merit. Both groups express the need for flexibility in sizing a net metering system, citing the known variances in customer usage and in the amount of electricity generated by distributed generation resources such as solar and wind. It is these variances, they argue, that must be recognized in sizing a system "intended primarily to offset part or all of the customer-generator's requirements for electricity." R.C. 4928.01(A)(31)(d). The Environmental Advocates denounce FirstEnergy's restrictive reading of R.C. 4928.01(A)(31)(d). The Advocates state that the word "primarily" must be given meaning and that, by correctly allowing leeway in calculating and reaching "all of the customer-generator's requirements for electricity," the Commission has reasonably interpreted the statute.

{¶ 12} The Commission finds that FirstEnergy has raised no new arguments on rehearing. November 2017 Order at ¶ 14, 33-35. Accordingly, FirstEnergy's assignments of error regarding the appropriate sizing of microturbines and of net metering systems should be denied.

B. The Standard Net Metering Tariff (Ohio Adm.Code 4901:1-10-28(B)(1)(a)).

{¶ 13} Under adopted Rule 4901:1-10-28(B)(1)(a), each electric distribution utility (EDU) must offer a standard net metering tariff to all customers taking service under the utility's standard service offer (SSO) only; there is no corresponding requirement for an EDU to offer its net metering tariff to customers who procure generation from competitive retail electric service (CRES) providers (shopping customers). Rather than mandating that CRES providers offer net metering, the adopted net metering rules are permissive. Under adopted Rule 4901:1-10-28(B)(1)(c), any CRES provider may offer net metering contracts consistent with Ohio Adm.Code Chapter 4901:1-21 and under such terms as negotiated and agreed to by the CRES provider and the customer-generator. Although initially supportive of this laissez-faire approach, IGS changes course in its application for rehearing.

{¶ 14} On rehearing, IGS takes the position that the Commission's November 2017 Order unjustly and unreasonably discriminates against shopping customers who, under adopted Rule 4901:1-10-28(B)(1)(a) and (c), must choose between compensation for excess generation under an EDU's standard net metering tariff available only to SSO customers or the possibility of zero compensation for net metering with a CRES provider. IGS further submits that this approach undermines the state policy in favor of customer choice and distributed generation expressed in R.C. 4928.02(A)-(D) and (K). Citing the lack of wide-spread advanced meters and limitations of the EDUs' current billing systems, IGS states that it is impossible for CRES providers to provide net metered compensation to non-interval metered customers in three of the four major EDU territories. IGS argues that, without an advanced meter that records hourly energy production and updated billing systems, there is no way for an EDU to provide CRES providers with any form of credit or load reduction. And, without the necessary credit to essentially pass on to their customer-generators, the CRES providers would be unable to provide compensation for excess generation to those customer-generators. As such,

according to IGS, a CRES provider is in an untenable position: either provide no compensation to a customer-generator or recommend that the customer-generator revert to taking service from the SSO, under which compensation is provided by rule. As a remedy, IGS suggests that the Commission direct EDUs to offer its standard net metering tariff to both SSO and shopping customers on a non-discriminatory basis.

{¶ 15} DP&L disagrees with IGS's position. Although the utility agrees that greater deployment of advanced meters will further distributed generation and net metering, DP&L submits that the amended net metering rules provide a proper mechanism for compensating all net-metering participants. Specifically, DP&L points to amended Rule 4901:1-10-28(B)(9)(h), which requires EDUs to ensure that any final settlement data sent to the regional transmission organization includes negative loads provided to a CRES provider and that when a customer-generator has non-hourly billing, that customer generation will offset the CRES provider's energy obligation. Thus, explains DP&L, even when fully advanced meters are not available, there is a mechanism for CRES providers to receive credit, which the CRES providers can then pass along to their respective customer-generators as needed. Therefore, DP&L argues that the amended Rule does not discriminate against shopping customers and there is no justification for shifting any burden from the CRES providers to the EDUs.

{¶ 16} The Commission finds that rehearing on IGS' assignment of error should be granted. Although, in the long-term, net metering service should be a competitive retail electric service delivered to shopping customers by their CRES providers, we agree that further deployment of advanced meters and improvements to the EDU's billing systems are necessary before the EDU net metering tariffs can be limited to SSO customers. We will continue to explore and develop the question of when and how to transition net metering service to a competitive service through our PowerForward initiative. Further, we will consider a waiver of this rule, on a case-by-case basis, for any EDU that can demonstrate full deployment of appropriate advanced meters in its service

territory and demonstrate that its billing systems are fully compatible with net metering service provided by CRES providers. Finally, as discussed below, EDUs should recover all of the costs of providing net metering through an appropriate nonbypassable rider.

C. Definition of Premises (Ohio Adm.Code 4901:1-10-28(B)(6)).

{¶ 17} With regard to adopted Rule 4901:1-10-28(B)(6), One Energy asserts that the Commission's Order is unreasonable and unlawful because the definition of the term "premises" is unreasonably vague and arbitrarily grants EDUs the authority to regulate matters clearly beyond the scope of net metering, interconnection, and the jurisdiction of the Commission. One Energy takes issue with the phrase "so long as it would not create an unsafe or hazardous condition as determined by the electric utility on a case by case basis." One Energy asserts that the language is vague as to what exactly is being judged for safety, or by what standard, and grants EDUs unfettered discretion in approving or disapproving a proposed net metering system. One Energy states that conceding such discretion to the EDUs is in direct conflict with the Commission's amended rules and the comprehensive, long-standing legal framework already governing the interconnection process in Ohio. To the extent that the Commission intended to limit the EDUs' discretion to the safety of the interconnection of a net metering system and its effect on grid performance and reliability, One Energy has no complaint. In that case, however, it does ask that the Commission provide clarification. On the other hand, One Energy strenuously objects to any intention to grant EDUs discretion in other aspects of net metering systems, such as engineering designs and the crossing of land in which a utility has no legal interest.

{¶ 18} In part a continuation of its first assignment of error, One Energy also alleges that the Order is unreasonable and unlawful because the definition of "premises" disregards various state laws and the rights of non-utility easement holders in granting electric utilities the power to arbitrarily decide whether a net metering facility is safe. One Energy contends that it is the appropriate state and local authorities and private land

owners—not the EDUs—that have the legal authority to decide whether a customer-generator may safely place a structure in an easement, thoroughfare, or right-of-way. And, argues One Energy, these decisions are already guided by a comprehensive, long-standing legal framework, a framework the utilities themselves must abide by in crossing private and public land.

{¶ 19} Finally, in its third assignment of error, One Energy faults the Commission with failing to consider all of the evidence in the record before adopting its definition of the term premises within Rule 4901:1-10-28(B)(6). More specifically, One Energy points to arguments it made during the comment period that mirror those made in its application for rehearing, all of which challenge the EDUs' position that net metering systems on contiguous lots or which cross an easement or right-of-way are presumptively unsafe. To the contrary, One Energy states, the same legal framework that has ensured the safety of net metering systems will continue to do so, even where the premises on which a net metering system is installed crosses an easement or contains contiguous lots.

{¶ 20} The culmination of One Energy's arguments is this amendment to the definition of premises:

A contiguous lot to the area with the customer-generator's metering point is considered the customer-generator's premises regardless of easements, public thoroughfares, transportation rights-of-way, or utility rights-of-way. ~~so long as it would not create an unsafe or hazardous condition as determined by the electric utility on a case-by-case basis.~~

{¶ 21} In a jointly filed memorandum contra rehearing, FirstEnergy and AEP disagree with One Energy. FirstEnergy and AEP stress that it is the EDU's role, not a third-party developer of net metering systems' role, to take necessary precautions to protect public safety as well as the integrity and reliability of the grid. In its own

memorandum contra rehearing, DP&L also argues against removing an EDU's ability to determine on a case-by-case basis whether net metering on contiguous premises would create an unsafe or hazardous condition. Indeed, DP&L asserts that the EDUs are in the best position to facilitate safe and reliable service and, thus, must be the final arbiters of whether a net metering system on continuous lots—including infrastructure transmitting the energy over those contiguous lots—would affect the safety and reliability of the utilities' distribution systems. DP&L further maintains that the Commission's adopted rule does not usurp or conflict with the rights of easement holders. Instead, DP&L explains that the rule strikes a balance between the rights of the landowners, easement holders, and the EDU; the customer-generator must go through the typical easement or local permitting processes in designing and building the system, but it is the EDU's right and duty to ensure that the system does not create an unsafe or hazardous condition for the electric distribution system to which it interconnects. The roles are complementary, not mutually exclusive.

{¶ 22} In its own application for rehearing, FirstEnergy argues that the Commission's definition is too expansive. More specifically, FirstEnergy challenges the Commission's adopted amendment to Rule 4901:1-10-28(B)(6) as unreasonable and unlawful because it would allow customer-generators to cross boundaries of non-owned property, such as streets and public rights-of-way and allow third-party-owned equipment to supply electricity across property lines. This, FirstEnergy claims, is contrary to the General Assembly's statutory grant of exclusive certified territories and promotes unsafe conditions. FirstEnergy reasons that premises consisting of contiguous lots simply are not a "single location" as that term is used in R.C. 4933.18(E), especially where such lots are separated by easements, public thoroughfares, and rights-of-way.¹

¹ R.C. 4933.18(E) defines "electric load center" as "all the electric-consuming facilities of any type or character owned, occupied, controlled, or used by a person at a single location which facilities have been, are, or will be connected to and served at a metered point of delivery and to which electric service has been, is, or will be rendered."

Moreover, FirstEnergy argues, the EDUs' tariffs do not permit customers to string their own electric wires across easements, etc., to serve other properties owned by that customer. Thus, FirstEnergy requests that the Commission amend the adopted rule to exclude contiguous lots from the definition of premises.

{¶ 23} Responding, One Energy disagrees with FirstEnergy's statutory interpretation. One Energy concurs that R.C. 4933.83(A) grants each electric supplier the exclusive right to serve electric load centers within its certified territory, but disagrees that contiguous lots would fail to qualify as a single location as that term is used in R.C. 4933.18(E). Instead, One Energy points to the language within that statute that specifies that the "facilities have been, are, or will be connected to and served at a metered point of delivery." One Energy explains that, even if contiguous lots are implicated, any net metering system will have but a single metered point of delivery, albeit with longer collection lines. One Energy additionally states that an electric load center does not cease to be a single electric load center simply because a portion of the net metering system crosses an easement. Finally, One Energy stresses its disagreement with FirstEnergy's insistence that contiguous lots will necessarily lead to unsafe conditions.

{¶ 24} In their memorandum contra rehearing, the Environmental Advocates first voice strong support for the inclusion of contiguous lots in the definition of a customer-generator's premises. Continuing, they deem FirstEnergy's argument regarding certified territories to be misguided. The Advocates argue that the statutes regarding certified territories dictate who can provide electricity to the end user, not what kind of facility can be installed. Furthermore, the Advocates reject the notion that contiguous properties are not a "single location" as contemplated by R.C. 4933.18(E), especially given the realities of land use by large customers whose businesses run across multiple parcels in a single locale. In short, with regard to this issue, the Environmental Advocates support the Commission's adopted rule, oppose the EDUs' arguments regarding contiguous lots and oversight of net metering systems in their entirety, and, to that end, also back One

Energy's recommendation for the Commission to clarify the scope of the utility's authority to approve or deny a customer-generator's net metering system.

{¶ 25} The Commission finds that One Energy's application for rehearing should be granted. One Energy has demonstrated that the proposed rule 4901:1-10-28(B)(6) unduly restricts the deployment of distributed generation and contravenes the policy of the state to encourage the development of distributed generation facilities. R.C. 4928.02(C), (F), and (K). We also agree that the determination of unsafe or hazardous conditions should not be the sole discretion of the EDU. Instead the determination of unsafe or hazardous conditions should be governed by the Commission's interconnection standards contained in Ohio Adm.Code Chapter 4901:1-22, particularly Ohio Adm.Code 4901:1-1-22-03 which incorporates industry standards for safety and performance standards. Accordingly, we will amend proposed rule 4901:1-10-28(B)(6) as follows:

A contiguous lot to the area with the customer-generator's metering point may be considered the customer-generator's premises regardless of easements, public thoroughfares, transportation rights-of-way, or utility rights-of-way, so long as it would not create an unsafe or hazardous condition pursuant to the interconnection standards set forth in Chapter 4901:1-22 of the Administrative Code, ~~as determined by the electric utility on a case-by-case basis.~~

{¶ 26} Further, rehearing on FirstEnergy's assignment of error should be denied. We are not persuaded that the definition of "premises," as amended, implicates or enables violations of the Certified Territories Act, codified at R.C. 4933.81-4933.90. The General Assembly was no doubt mindful of the Certified Territories Act when it enacted the state policy to ensure that an EDU's transmission and distribution systems are available to a customer-generator or owner of distributed generation, so that the

customer-generator or owner can market and deliver the electricity it produces. R.C. 4928.02(F).

D. Compensation for Excess Generation (Ohio Adm.Code 4901:1-10-28(B)(9)(c)).

{¶ 27} Several parties raise arguments on rehearing regarding the Commission's adoption of Rule 4901:1-10-28(B)(9)(c), by which compensation for excess generation is limited to the energy component of the electric utility's SSO rate.

{¶ 28} IGS submits that removing capacity compensation, i.e., compensating only on the energy portion of the SSO rate, reduces the economic viability of distributed generation resources by eliminating an important value stream. This is so, says IGS, because until advanced meters are fully deployed in Ohio, there is no way for a shopping or an SSO customer to receive a capacity cost reduction based on that customer's usage during peak hours.

{¶ 29} The Environmental Advocates argue that the Commission acted unlawfully and outside its statutory authority by removing the capacity component from compensation because it treats customer-generators less favorably than customers who do not net meter in violation of R.C. 4928.67. R.C. 4928.67(A)(1) states that an EDU's standard net metering tariff shall be identical in rate structure, all retail rate components, and any monthly charges to which the same customer would be assigned if that customer were not a customer-generator. The Advocates contend that for rate structure to be identical as between non-net-metering and net-metering customers, said customers' contributions to lowering peak demand must be treated identically. According to the Environmental Advocates, by removing the capacity component from the customer-generator's credit, the Commission violates this statutory mandate because non-net-metering customers save money on both the energy and capacity components of their bill when they contribute to lowering peak system demand by reducing their electricity usage whereas customer-generators who contribute to lowering peak system demand by

producing more electricity than they consume are only compensated for the energy portion. This group also points to R.C. 4928.67(B)(3)(b), which provides that customer-generators producing excess generation should be given credits for that "electricity." The Advocates submit that, statutorily, any credit provided to a customer-generator must compensate for electricity as a whole, i.e., both the energy and capacity components.

{¶ 30} The Environmental Advocates proffer two additional assignments of error regarding their belief that the Commission acted unreasonably in removing capacity compensation. First, the Advocates contend that the Commission unreasonably ignored their arguments and previously submitted evidence that distributed generation has reliable capacity value. And, by removing capacity compensation, the Commission is tacitly permitting EDUs to buy more capacity than is necessary, which results in additional costs to all customers. Second, and similar to IGS, the Advocates insist that the Commission's observations regarding time-of-use tariffs are unreasonable because such rates require higher cost equipment, are not prevalent, and are ill designed to compensate customer-generators for their contributions to lowering peak demand. Thus, until the necessary technology is widespread and time-of-use tariffs are tailored to recognize the capacity contributions from customer-generators, the Environmental Advocates state it is unreasonable to remove the capacity component from net metering credits.

{¶ 31} OCC also finds fault with the amendment to Rule 4901:1-10-28(B)(9)(c), as well as with the Commission's November 2017 Order adopting the rule. OCC claims that that the rule and the November 2017 Order are unreasonable for two reasons: (1) because net metering customers should be compensated with a capacity credit for their excess generation and (2) because the Commission allegedly failed to provide a legal explanation for veering from its previous position supporting a capacity credit. As to the former, OCC submits that the Commission should maintain the status quo—compensating excess generation with a credit consisting of both energy and capacity

components—until a more detailed, contemporary state-wide policy review can be completed. As to the latter, OCC asserts that the Commission inappropriately reversed its previous order that compensation for excess generation should include capacity without establishing a legal foundation for its change in course.²

{¶ 32} In their memorandum contra rehearing, AEP and FirstEnergy dispute the positions taken by IGS, OCC, and the Environmental Advocates and support the Commission's adoption of Rule 4901:1-10-28(B)(9)(c). FirstEnergy and AEP argue that, even without the capacity component, net metering customers are fully compensated regardless of whether the customer-generator generates in excess of its monthly electricity consumption: those who do not generate more than they consume see a reduction to net kWh consumption, which in turn reduces all kWh-based rider charges, and those who generate in excess of consumption pay no capacity charge for the month irrespective of how many kWh consumed during periods of peak demand. FirstEnergy and AEP further argue that, despite the Advocates protestations to the contrary, it has not been demonstrated that net metering customers produce excess generation at times of peak SSO demand. Additionally, they state that SSO energy and capacity obligations have been fully transferred to SSO suppliers, which means it is the load serving entities—not the EDUs—that receive the benefit of excess generation. As to the Environmental Advocates' allegation that the Commission's order is in violation of R.C. 4928.67, AEP and FirstEnergy submit that there is simply no possible comparison of the monetary credit for excess generation between a net metering customer and a non-net metering customer because the latter by definition will never produce or be compensated for excess generation. Finally, FirstEnergy and AEP assert that the Commission correctly considered the role that advanced metering and time-of-use tariffs can play in

² Although not raising the issue as a specific assignment of error, both IGS and the Environmental Advocates also allude to changes to this aspect of Ohio Adm.Code 4901:1-10-28(B)(9)(c) over the course of the rule review in this docket.

compensation for excess generation, stating that market forces—not administrative regulations—are best equipped to foster innovation in distributed generation.

{¶ 33} The Commission affirms our decision to base compensatory credits for excess generation on only the energy component of the electric utility's SSO rate. We are not persuaded that net metering customer's contributions to reducing the capacity requirements to serve that customer can be accurately measured until appropriate advanced meters are fully deployed in any given EDU's service territory; and until that time, load-serving entities, whether CRES providers or wholesale suppliers of SSO generation, must continue to obtain capacity to serve those customers at peak demand. It would be manifestly unfair to pay customer-generators for reducing capacity requirements when that capacity reduction is not reflected in the cost to serve the customer-generator. Rehearing on these assignments of error should be denied. However, we note that the Commission may revisit this issue through the PowerForward process if technological and regulatory changes merit a change in policy.

E. Cost Recovery (Ohio Adm.Code 4901:1-10-28(B)(9)).

{¶ 34} During the comment process, the EDUs argued that Ohio Adm.Code 4901:1-10-28(B)(9) should be modified to explicitly allow the recovery of costs associated with net metering, which would better allow the utilities to upgrade their billing systems to accommodate net metering. The Commission did not include language regarding cost recovery in the adopted rule, explaining that we would not establish a cost-recovery mechanism by rule, particularly where the enabling statute is silent as to the same. Instead, in the November 2017 Order, the Commission concluded that the EDUs should be provided the opportunity to file an application for the deferral of costs of providing customer credits from net metering in base distribution rates or through some other appropriate rider or mechanism. November 2017 Order at ¶ 52. On rehearing, IGS, FirstEnergy, and OCC express concerns regarding the Commission's treatment of cost recovery.

{¶ 35} IGS and OCC urge caution in cost recovery. IGS insists that the Commission erred by including the cost recovery language in the November 2017 Order. IGS posits that because the Order treats net metering as a competitive service, permitting cost recovery through base distribution rates would violate R.C. 4928.02(H). IGS also argues that there is no need for EDUs to recover the cost of net metering through distribution rates in order to be made whole. Similarly, OCC argues that the Commission should limit cost recovery until a detailed, statewide policy review is completed. In the interim, OCC states that the Commission should limit deferrals to utility excess generation payments made minus any payments received from SSO customers who consumed the excess generation. Any other course, says OCC, may result in double recovery by the EDUs.

{¶ 36} FirstEnergy complains that the Commission's Order unjustly constrains cost recovery to only the cost of providing credits for excess generation and does not consider, or at least is silent as to, considerable other costs associated with implementation of net metering. FirstEnergy states it would be unjust and unreasonable to force the EDUs to incur the significant costs of modifying billing systems, compiling and providing 36 months of consumption history to assist in the sizing of facilities, and making interval data available on a timely basis without the ability to seek recovery. Thus, FirstEnergy urges the Commission to modify the November 2017 Order to clarify that any and all compliance costs shall be included within any recovery mechanism approved by the Commission.

{¶ 37} In its memorandum in opposition to rehearing, DP&L defends the Commission's approach to cost recovery. Responding to OCC and IGS, DP&L points out that excess generation costs resulting from net metering are properly reflected and recovered through generation rates. Moreover, because the EDUs are statutorily obligated to provide and facilitate net metering, DP&L argues that administrative costs incurred with respect to net metering—costs to change billing systems, customer service

costs, and similar organizational costs—are properly recovered through distribution rates.

{¶ 38} Rehearing on these assignments of error should be denied. We affirm our decision that EDUs should recover the costs of providing generation credits to customers through an appropriate nonbypassable rider, particularly since we have amended the proposed rules to ensure that EDU net metering service is available to both shopping and SSO customers. All other costs of providing net metering service are appropriately recovered through base distribution rates, although we will entertain applications to defer for future recovery reasonable and verifiable expenses of providing net metering service.

F. Miscellaneous Assignments of Error

{¶ 39} In addition to weighing in on the foregoing issues, OCC raises three additional assignments of error.

{¶ 40} First, OCC contends that the November 2017 Order is unreasonable because the Commission should protect consumers from unfair contract terms and conditions that could be offered by marketers. Here, OCC is critical of the Commission's determination in Rule 4901:1-10-28(B)(1)(c) that CRES providers may offer net metering contracts to their customers, consistent with Ohio Adm.Code Chapter 4901:1-21, at any price, rate, credit or refund for excess generation. OCC argues that the customer protections found in Ohio Adm.Code Chapter 4901:1-21 may be insufficient to protect net-metering customers from unfair sales practices and urges the Commission to take the immediate opportunity to adopt customer protection rules specific to net metering. OCC states that the Commission should hold Rule 4901:1-10-28(B)(1)(c) in abeyance until the CRES rules are amended under Commission Case No. 17-1843-EL-ORD.

{¶ 41} Second, OCC contends that the November 2017 Order is unreasonable because the Commission should clarify that EDUs are required to file updates of their supplier tariffs to reflect the cost that will be charged to CRES providers for billing net-metering customers. Citing to the requirement in adopted Rule 4901:1-10-28(B)(9)(e) that an EDU move a CRES provider's customer-generator to bill-ready billing unless the provider and the customer-generator have agreed to dual billing, OCC complains that without a commensurate change to the EDU's supplier tariff, an unlawful subsidy occurs. Thus, OCC proposes the Commission modify its November 2017 Order to include a requirement for updated supplier tariffs.

{¶ 42} IGS responds to each of these assignments of error. As to the former, IGS observes that OCC's argument misinterprets or ignores existing rules that address concerns of consumer protection as between CRES providers and their customers. IGS also faults OCC's argument as being vague. Thus, IGS submits that OCC's request for additional consumer safeguards is neither justified nor ripe. Similarly, IGS states that the latter argument lacks merit and is, essentially, an improper collateral attack on existing billing arrangements between EDUs and CRES providers.

{¶ 43} Finally, OCC contends that the November 2017 Order is unlawful because it assumes the Commission has the required authority to decide applications for utility-provided, captive-customer funded, behind-the-meter services. In other words, OCC believes the Commission acted outside its statutory authority in stating that an EDU could file an application to offer net metering in a manner not contemplated by R.C. Chapter 4928 or Ohio Adm.Code 4901:1-10-28 without providing strict guidelines. OCC counsels the Commission to amend the November 2017 Order to reflect that additional legislative authority must be obtained prior to considering any application for utility-provided, behind-the-meter services.

{¶ 44} DP&L, on the other hand, commends the Commission for its restraint in not addressing issues not properly before it in this limited rule-review proceeding. DP&L

maintains it would be improper for the Commission to proceed beyond the scope of a rulemaking decision in order to opine and render judgment upon what types of scenarios an EDU be a customer-generator. Thus, DP&L argues against OCC's proposed modification.

{¶ 45} The Commission finds that rehearing on OCC's final three assignments of error should be denied. First, we disagree with OCC that the consumer protections in Ohio Adm.Code Chapter 4901:1-21 are insufficient to protect consumers from unfair practices by CRES provides in providing net metering service. The consumer protections contained in Ohio Adm.Code Chapter 4901:1-21 require the full disclosure of all material terms in the marketing, solicitation and sale of competitive retail electric service. In a competitive market, prices, terms and conditions should be set by the agreement of the parties, not the Commission, as long as the CRES providers do not engage in unfair, misleading, deceptive, or unconscionable acts or practices. Second, the Commission finds that it is unnecessary to specifically order EDU's to amend their supplier tariffs to be consistent with the proposed rule. Given the substantial amendments to the net metering rule in this rulemaking, modifications to the EDU supplier tariffs will no doubt be necessary.

{¶ 46} Moreover, we find that the arguments raised by OCC in support of its final assignment of error are premature. We will address the issues raised by OCC either through our PowerForward initiative or if and when an EDU files an application to provide behind-the-meter services to retail customers. Such issues are outside of the scope of this rulemaking; therefore, rehearing on this assignment of error should be denied.

{¶ 47} As noted above, the Commission recognizes that the provision of net metering service is subject to rapid technological and regulatory changes. We will continue to explore and develop the issues related to net metering service through our PowerForward initiative. However, in the interim, the proposed amendments to the net

metering rule should continue to encourage the deployment of distributed generation in this state in accordance with the state policy set forth in R.C. 4928.02(C), (E) and (K).

IV. ORDER

{¶ 48} It is, therefore,

{¶ 49} ORDERED, That the applications for rehearing filed by One Energy and IGS be granted, in part, and denied, in part. It is, further,

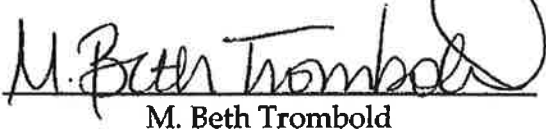
{¶ 50} ORDERED, That the applications for rehearing filed by OCC, the Environmental Advocates, and FirstEnergy be denied. It is, further,

{¶ 51} ORDERED, That a copy of this Fifth Entry on Rehearing be served upon all parties of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO



Asim Z. Haque, Chairman



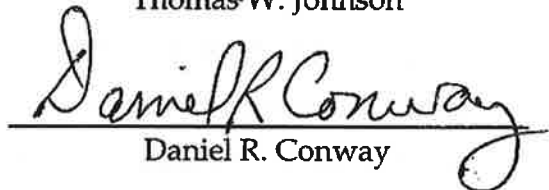
M. Beth Trombold



Thomas W. Johnson



Lawrence K. Friedeman



Daniel R. Conway

PAS/sc

Entered in the Journal

DEC 19 2018



Barcy F. McNeal
Secretary

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4901:1-10-28 Net metering.

(A) For purposes of this rule, the following definitions shall apply:

- (1) "Advanced meter" means any electric meter that meets the pertinent engineering standards using digital technology and is capable of providing two-way communications with the electric utility to provide usage and/or other technical data.
- (2) "CRES provider" shall mean any provider of competitive retail electric service.
- (3) "Customer-generator" shall have the meaning set forth in section 4928.01(A)(29) of the Revised Code. A customer that hosts or leases third party owned generation equipment on its premises is considered a customer-generator.
- (4) "Electric utility" shall have the meaning set forth in section 4928.01(A)(11) of the Revised Code.
- (5) "Hospital" shall have the meaning set forth in section 3701.01(C) of the Revised Code.
- (6) "Interval meter" means any electric meter that is capable of measuring interval usage data on at least an hourly basis.
- (7) "Microturbine" shall mean a turbine or an integrated modular turbine package with a capacity of two megawatts or less.
- (8) "Net metering" shall have the meaning set forth in section 4928.01(A)(30) of the Revised Code.
- (9) "Net metering system" shall have the meaning set forth in section 4928.01(A)(31) of the Revised Code. Net metering system includes all facilities, regardless of whether the customer-generator is on the electric utility's net metering tariff or engaged in net metering with a CRES provider.
- (10) "Third party" means a person or entity that may be indirectly involved or affected but is not a principal party to an arrangement, contract, or transaction between other parties.

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~~(A)~~(B) ~~Standard n~~Net metering.

- (1) Each electric utility shall develop a standard net metering tariff and a hospital net metering tariff. The electric utility shall make such tariffs tariff for net metering. Such ~~tariff shall be made available to qualifying customer customer-generators~~ upon request, in a timely manner, and on a nondiscriminatory basis.

(a) Each electric utility shall offer a standard net metering tariff to all customers upon request taking service under the electric utility's standard service offer.

(b) Each electric utility shall offer the hospital net metering tariff to all qualifying hospital customers upon request.

(c) A CRES provider may offer net metering contracts to its customers, consistent with Chapter 4901:1-21 of the Administrative Code, at any price, rate, credit, or refund for excess generation. The CRES provider and the customer shall define the terms of any contract, including the price, rate, credit, or refund for any excess production by a customer-generator. A CRES provider is not required to enter into any net metering contract with any customer. Only customers who have signed an interconnection agreement with the electric utility may engage in net metering with a CRES provider.

~~(a) A qualifying customer generator is one whose generating facilities are:~~

~~(i) Fueled by solar, wind, biomass, landfill gas, or hydropower, or use a microturbine or a fuel cell.~~

~~(ii) Located on a customer generator's premises.~~

~~(iii) Operated in parallel with the electric utility's transmission and distribution facilities.~~

~~(iv) Intended primarily to offset part or all of the customer generator's electricity requirements.~~

~~(b) Net metering arrangements shall be made available regardless of the date the customer's generating facility was installed.~~

- (2) Except as used by hospitals, a net metering system must use as its fuel either solar, wind, biomass, landfill gas, or hydropower, or use a microturbine or a fuel cell.

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- (3) Net metering arrangements shall be made available regardless of the date the customer-generator's net metering system was installed.
- (2)(4) The electric utility's standard net metering tariff for net metering shall be identical in rate structure, all retail rate components, and any monthly charges, to the tariff to which the same customer would be assigned if that customer were not a customer generatorcustomer-generator. Such terms shall not change simply because a customer becomes a customer-generatorcustomer-generator.
- (a) The electric utility shall disclose on the electric utility's website, and to any customer upon request, the name, address, telephone number, and email address of the electric utility's net metering department or contact person.
- (b) The electric utility shall provide on the electric utility's website, and to any customer upon request, all necessary information regarding eligibility for the electric utility's net metering tariffs. The electric utility shall also provide this information to any customer, upon request, within a net metering application packet. The website and application packet shall describe and provide the following information in a straightforward manner: net metering tariff terms and conditions, sample net metering and interconnection agreements, and the terms and conditions for eligibility to be a net metering customer-generator. The website and application packet shall also provide information on costs that the customer may incur as a result of net metering enrollment, including any costs associated with the following: application, interconnection, and meter installation.
- (3)(5) No-The electric utility's net metering tariffs for net metering shall not require customer generators customer-generators to:
- (a) Comply with any additional safety or performance standards beyond those established by rules in Chapter 4901:1-22 of the Administrative Code, and section 4928.67(B)(4) of the Revised Codeand the "National Electrical Code," the "Institute of Electrical and Electronics Engineers," and "Underwriters Laboratories," in effect as set forth in rule 4901:1-22-03 of the Administrative Code.
- (b) Perform or pay for additional tests beyond those required by paragraph (A)(3)(a)(B)(5)(a) of this rule.
- (c) Purchase additional liability insurance beyond that required by paragraph (A)(3)(a)(B)(5)(a) of this rule.

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- (6) A net metering system must be located on the customer-generator's premises. A customer-generator's premises is the area that is owned, operated, or leased by the customer-generator with the metering point for the customer-generator's account. A contiguous lot to the area with the customer-generator's metering point may be considered the customer-generator's premises regardless of easements, public thoroughfares, transportation rights-of-way, or utility rights-of-way, so long as it would not create an unsafe or hazardous condition pursuant to the interconnection standards set forth in Chapter 4901:1-22 of the Administrative Code as determined by the electric utility on a case-by-case basis.
- (7) Unless it is a hospital, a customer-generator must intend primarily to offset part or all of the customer-generator's requirements for electricity, regardless of whether the customer-generator is on the electric utility's net metering tariff or engaged in net metering by contract with a CRES provider.
- (a) The electric utility shall communicate with and assist a customer-generator in calculating the customer-generator's requirements for electricity based on the average amount of electricity supplied by the electric utility to the customer-generator annually over the previous three years. In instances where the electric utility cannot provide data without divulging confidential or proprietary information, or in circumstances where the electric utility does not have the data or cannot calculate the average annual electricity supplied to the premises over the previous three years due to new construction, vacant properties, facility expansions, or other unique circumstances, the electric utility shall use any available consumption data or measures to establish an appropriate consumption estimate. Upon request from any customer-generator, the electric utility shall provide or make available to the customer-generator either the average electricity supplied to the premises over the previous three years or a reasonable consumption estimate for the premises.
- (b) A customer-generator must size its facilities so as to not exceed one hundred and twenty percent of its requirements for electricity at the time of interconnection, regardless of whether the customer-generator intends to take service through an electric utility a CRES provider.
- (4)(8) Net metering shall be accomplished using a single meter capable of registering the flow of electricity in each direction. A customer's existing single register meter that is capable of registering the flow of electricity in both directions satisfies this requirement. If the customer's existing electrical meter is not capable of measuring the flow of electricity in two directions, the electric utility, upon written request from

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the customer, shall install at the customer's expense a meter that is capable of measuring electricity flow in two directions. Upon request from a customer-generator, the electric utility shall provide the customer-generator with a detailed cost estimate of installing an interval meter. If the net metering system is located in an area where advanced meters have been deployed or are proposed to be deployed within 12 months, then the electric utility shall provide the customer-generator with a detailed cost estimate of installing an advanced meter that is also an interval meter.

(a) If a customer-generator requests an advanced meter that is also an interval meter, then such cost shall be paid by the customer-generator through the applicable smart grid rider. If the net metering system is not located in an area where the electric utility has deployed, is deploying, or proposes to deploy within 12 months advanced meters, then the electric utility may install any interval meter.

(b) The electric utility, at its own expense and with the written consent of the customer-generator, may install one or more additional meters to monitor the flow of electricity in each direction. No electric utility shall impose, without commission approval, any additional interconnection requirement or additional charges on customer-generators refusing to give such consent.

(c) If a customer's existing meter needs to be reprogrammed for the customer to become a customer-generator, or to accommodate net metering, then the electric utility shall provide the customer-generator a detailed cost estimate for the reprogramming or setup of the existing meter. The cost of setting up the meter to accommodate net metering shall be at the customer's expense. If a customer-generator has a meter that is capable of measuring the flow of electricity in each direction, is sufficient for net metering, and does not require setup or reprogramming, then the customer-generator shall not be charged for a new meter, setup, or reprogramming to accommodate net metering.

(d) For hospital customer-generators, net metering shall be accomplished using either two meters or a single meter with two registers that are capable of separately measuring the flow of electricity in both directions. One meter or register shall be capable of measuring the electricity generated by the hospital at the output of the generator or net of the hospital's load behind the meter at the time it is generated. If the hospital's existing electric meter is not capable of separately measuring electricity the hospital generates at the time it is generated, the electric utility, upon written request from the hospital, shall install at the hospital's expense a meter that is capable of such measurement.

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- (5) ~~The electric utility, at its own expense and with the written consent of the customer generator, may install one or more additional meters to monitor the flow of electricity in each direction. No electric utility shall impose, without commission approval, any additional interconnection requirement or additional charges on customer generators refusing to give such consent.~~
- (6)(9) The measurement of net electricity supplied or generated supplied by the electric utility or received from the customer-generator shall be calculated in the following manner:
- (a) The electric utility shall measure the net electricity produced or consumed during the billing period, in accordance with normal metering practices.
 - (b) If the electricity supplied by the electric utility exceeds the electricity received from the customer-generator over the monthly billing cycle, then the customer-generator shall be billed for the net electricity consumed by it in accordance with normal metering practices.
 - (c) For customer-generators on the electric utility's standard net metering tariff, when the electric utility receives more electricity from the customer-generator than it supplied to the customer-generator over a monthly billing cycle, the excess electricity shall be converted to a monetary credit at the energy component of the electric utility's standard service offer and shall continuously carry forward as a monetary credit on the customer-generator's future bills. The electric utility shall not be required to pay the monetary credit, other than to credit it to future bills, and the monetary credit may be lost if a customer-generator does not use the credit or stops taking service from the electric utility.
 - (d) The hospital net metering tariff shall be based upon the rate structure, rate components, and any charges to which the hospital would otherwise be assigned if the hospital were not a customer-generator and upon the market value of the customer-generated electricity at the time it is generated. The market value means the locational marginal price of energy determined by a regional transmission organization's operational market at the time the customer-generated electricity is generated.
 - (e) A CRES provider may offer a net metering contract at any price, rate, or manner of credit for excess generation. The CRES provider shall notify the electric utility whenever a net metering contract has been entered into with a customer-generator. The electric utility may move the customer-generator to bill-ready

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billing, unless the CRES provider and the customer-generator agree to dual billing.

- (f) If a customer-generator is net metering with a CRES provider and uses an advanced meter capable of measuring at least hourly interval usage data, the electric utility shall transmit or make available to the CRES provider the customer-generator's interval data for that billing period within 24 hours of performing industry-standard validation, estimation, and editing processes. The electric utility shall also transmit or make available to the CRES provider the customer-generator's daily interval usage data within 24 hours of performing daily industry-standard validation, estimation, and editing processes.
- (g) The electric utility shall at least annually calculate and provide or make available to the CRES provider the individual network service peak load values and peak load contributions of customer-generators engaged in net metering with that CRES provider.
- (h) The electric utility shall ensure that any final settlement data sent to a regional transmission organization includes negative loads in the hourly load calculation of any electricity provided to a CRES provider from its customer-generators with hourly interval metering. Load from a customer-generator shall be incorporated in the CRES provider's total hourly energy obligation reported to the regional transmission organization and will offset the CRES provider's reported load to the regional transmission organization. For customer-generators with non-hourly metering, customer generation will offset the CRES provider's energy obligation.
- ~~(b) If the electric utility supplies more electricity than the customer generator feeds back to the system in a given billing period, the customer generator shall be billed for the net electricity that the electric utility supplied, as measured in accordance with normal metering practices.~~
- ~~(c) If the customer generator feeds more electricity back to the system than the electric utility supplies to the customer generator, only the excess generation component shall be allowed to accumulate as a credit until netted against the customer generator's bill, or until the customer generator requests in writing a refund that amounts to, but is no greater than, an annual true-up of accumulated credits over a twelve-month period.~~

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- ~~(7)~~(10) In no event shall the electric utility impose on the ~~customer-generator~~ customer-generator any charges that relate to the electricity the ~~customer-generator~~ customer-generator feeds back to the system.
- (11) All customer-generators shall comply with the interconnection standards set forth in Chapter 4901:1-22 of the Administrative Code.
- (12) Renewable energy credits associated with a customer-generator's net metering facility shall be the property of the customer-generator unless otherwise contracted with an electric utility, CRES provider, or other entity.
- (13) The electric utility shall annually report to the commission the total number and installed capacity of customer-generators on the electric utility's net metering tariffs for each technology and consumer class. The electric utility shall provide any other net metering data to the commission upon request and in a timely manner.

~~(B) Hospital net metering.~~

- ~~(1) Each electric utility shall develop a separate tariff providing for net metering for hospitals. Such tariff shall be made available to qualifying hospital customers upon request.~~
- ~~(a) As defined in section 3701.01 of the Revised Code, "hospital" includes public health centers and general, mental, chronic disease, and other types of hospitals, and related facilities, such as laboratories, outpatient departments, nurses' home facilities, extended care facilities, self care units, and central service facilities operated in connection with hospitals, and also includes education and training facilities for health professions personnel operated as an integral part of a hospital, but does not include any hospital furnishing primarily domiciliary care.~~
- ~~(b) A qualifying hospital customer generator is one whose generating facilities are:~~
- ~~(i) Located on a customer generator's premises.~~
- ~~(ii) Operated in parallel with the electric utility's transmission and distribution facilities.~~
- ~~(2) Net metering arrangements shall be made available regardless of the date the hospital's generating facility was installed.~~

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- (3) ~~The tariff shall be based both upon the rate structure, rate components, and any charges to which the hospital would otherwise be assigned if the hospital were not taking service under this rule and upon the market value of the customer-generated electricity at the time it is generated. For purposes of this rule, market value means the locational marginal price of energy determined by a regional transmission organization's operational market at the time the customer-generated electricity is generated.~~
- (4) ~~For hospital customer generators, net metering shall be accomplished using either two meters or a single meter with two registers that are capable of separately measuring the flow of electricity in both directions. One meter or register shall be capable of measuring the electricity generated by the hospital at the time it is generated. If the hospital's existing electrical meter is not capable of separately measuring electricity the hospital generates at the time it is generated, the electric utility, upon written request from the hospital, shall install at the hospital's expense a meter that is capable of such measurement.~~
- (5) ~~The tariff shall allow the hospital customer-generator to operate its electric generating facilities individually or collectively without any wattage limitation on size.~~
- (6) ~~The hospital customer generator's net metering service shall be calculated as follows:~~
 - (a) ~~All electricity flowing from the electric utility to the hospital shall be charged as it would have been if the hospital were not taking service under this rule.~~
 - (b) ~~All electricity generated by the hospital shall be credited at the market value as of the time the hospital generated the electricity.~~
 - (c) ~~Each monthly bill shall reflect the net of paragraphs (B)(6)(a) and (B)(6)(b) of this rule. If the resulting bill indicates a net credit dollar amount, the credit shall be netted against the hospital customer generator's bill until the hospital requests in writing a refund that amounts to, but is no greater than, an annual true-up of accumulated credits over a twelve-month period.~~
- (7) ~~No electric utility's tariff for net metering shall require hospital customer generators to:~~
 - (a) ~~Comply with any additional safety or performance standards beyond those established by rules in Chapter 4901:1-22 of the Administrative Code, and the~~

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~~National Electrical Code, the institute of electrical and electronics engineers, and underwriters laboratories, in effect as set forth in rule 4901:1-22-03 of the Administrative Code.~~

- ~~(b) Perform or pay for additional tests beyond those required by paragraph (B)(7)(a) of this rule.~~
- ~~(c) Purchase additional liability insurance beyond that required by paragraph (B)(7)(a) of this rule.~~
- ~~(8) In no event shall the electric utility impose on the hospital customer generator any charges that relate to the electricity the customer generator feeds back to the system.~~

THE PUBLIC UTILITIES COMMISSION OF OHIO

**IN THE MATTER OF THE COMMISSION'S
REVIEW OF CHAPTER 4901:1-10 OF THE
OHIO ADMINISTRATIVE CODE.**

CASE NO. 12-2050-EL-ORD

SEVENTH ENTRY ON REHEARING

Entered in the Journal on February 27, 2019

I. SUMMARY

{¶ 1} In this Seventh Entry on Rehearing, the Commission denies the applications for rehearing filed by the Dayton Power and Light Company; Ohio Power Company; and Interstate Gas Supply, Inc., IGS Generation, LLC, and IGS Solar, LLC.

II. DISCUSSION

{¶ 2} R.C. 111.15(B) and R.C. 106.03(A) require all state agencies to conduct a review of their rules every five years to determine whether those rules should be continued without change, be amended, or be rescinded. Currently, the Commission is reviewing the net metering rules contained in Ohio Adm.Code 4901:1-10-28.

{¶ 3} On November 8, 2017, the Commission issued a Finding and Order (November 2017 Order) amending the net metering rules contained in Ohio Adm.Code 4901:1-10-28.

{¶ 4} On December 8, 2017, the Ohio Consumers' Counsel; Interstate Gas Supply, Inc. (Interstate Gas); The Environmental Law & Policy Center, Ohio Environmental Council, Environmental Defense Fund, Natural Resources Defense Council, and Vote Solar (collectively, Environmental Advocates); One Energy Enterprises, LLC (One Energy); and Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company (collectively, FirstEnergy) filed applications for rehearing of the Commission's November 2017 Order. The Dayton Power and Light Company (DP&L), Environmental Advocates, One Energy, Interstate Gas, and FirstEnergy, who

submitted jointly with the Ohio Power Company (AEP Ohio), filed memoranda contra the applications for rehearing. The Commission then scheduled and, on January 10, 2018, heard oral arguments on the issues raised by the various parties on rehearing.

{¶ 5} On December 19, 2018, the Commission issued a Fifth Entry on Rehearing (Fifth Entry on Rehearing). Therein, the Commission granted, in part, and denied, in part, the applications for rehearing filed by One Energy and Interstate Gas and denied all other applications for rehearing.

{¶ 6} Pursuant to R.C. 4903.10, any party who has entered an appearance in a Commission proceeding may apply for rehearing with respect to any matters determined in that proceeding by filing an application within 30 days after the Commission's order is journalized. Any party may file a memorandum contra to an application for rehearing within ten days after its filing. Ohio Adm.Code 4901-1-35.

{¶ 7} On January 18, 2019, DP&L and AEP Ohio each filed an application for rehearing of the Commission's Fifth Entry on Rehearing; a third application for rehearing was filed jointly by Interstate Gas, IGS Generation, LLC, and IGS Solar, LLC (collectively, IGS). On January 28, 2019, Direct Energy Business, LLC, Direct Energy Services, LLC, and IGS combined to file a memorandum contra the applications for rehearing filed by DP&L and AEP Ohio. Additionally, FirstEnergy, AEP Ohio, and DP&L each filed a memorandum contra IGS's application.

{¶ 8} By Entry dated February 6, 2019, the Commission granted rehearing for further consideration of the matters specified in the applications for rehearing.

III. DISCUSSION

{¶ 9} In their respective applications for rehearing, DP&L and AEP Ohio both challenge Ohio Adm.Code 4901:1-10-28(B)(1)(a)'s requirement that a single net metering tariff be offered to all customer-generators, regardless of whether the customer-generator

takes service under the utility's standard service offer (SSO) or shops for generation. DP&L asserts that the Fifth Entry on Rehearing is unlawful and unreasonable because the rule amendment creates a subsidy in violation of R.C. 4928.02(H). AEP Ohio, on the other hand, submits that the amended rule violates R.C. 4928.67 and is otherwise inconsistent with federal law.

{¶ 10} DP&L's first assignment of error contends that Ohio Adm.Code 4901:1-10-28(B)(1)(a) exercised in conjunction with Ohio Adm.Code 4901:1-10-28(B)(9)(h) results in a "double-dipping" effect. More specifically, because the latter rule requires electric distribution utilities (EDUs) to ensure that any final settlement data sent to the regional transmission organization (here, PJM) include negative loads provided to a competitive retail electric service (CRES) provider – which essentially acts as a credit against the CRES provider's energy obligation through the settlement process – while the former requires that the EDU provide the net metering tariff, and thus any associated credits to the customer-generator, DP&L believes that CRES providers and their customers receive a subsidy. To avoid this unlawful subsidy, DP&L urges the Commission to revert to the version of Ohio Adm.Code 4901:1-10-28(B)(1)(a) set forth in the November 2017 Order, which required the EDU to offer a net metering tariff to only those customers taking service under the SSO.

{¶ 11} Citing to R.C. 4928.67 and the Public Utility Regulatory Policies Act of 1978 (PURPA), AEP Ohio also submits that the Commission's revision to Ohio Adm.Code 4901:1-10-28(B)(1)(a) is contrary to state statute and federal law. AEP Ohio first argues that several provisions of R.C. 4928.67 plainly prohibit the Commission from requiring a utility to offer net metering to shopping customers. For example, in discussing how the measurement of net electricity supplied or generated shall be calculated, R.C. 4928.67(B)(3)(b) specifically uses the phrase "electricity supplied by the electric utility." AEP Ohio interprets this language as a clear intent by the General Assembly to limit the application of an EDU's net metering tariff to situations in which the EDU supplies

electricity. Given this interpretation, and the idea that the EDU does not supply electricity to a shopping customer (whose electricity is procured from a CRES provider), AEP Ohio contends that the Commission cannot promulgate a rule under which the EDU must offer its net metering tariff to a shopping customer.

{¶ 12} In further support of its argument, AEP Ohio offers the language of R.C. 4928.67(A)(1), which states that the standard net metering tariff must be identical in rate structure, all retail rate components, and monthly charges to the tariff to which the customer would be assigned if it were not a customer-generator. AEP Ohio states that a shopping customer does not purchase electricity from the EDU and, consequently, there are no rate components, rate structures, or monthly charges for generation. Yet, AEP Ohio continues, the rule as modified on rehearing combined with Ohio Adm.Code 4901:1-10-28(B)(9)(c) requires AEP Ohio to provide a rate credit—calculated at the energy component of an EDU’s SSO—to shopping customers for excess generation in a month. AEP Ohio concludes that it is illogical, and thus illustrative as to why the standard net metering tariff should not apply to shopping customers, that an EDU can provide a rate credit based on the energy component of its SSO when the shopping customer does not purchase energy under the SSO.

{¶ 13} AEP Ohio also refers to R.C. 4928.67(B)(1), which provides that customer-generators “shall be responsible for all expenses involved in purchasing and installing a meter that is capable of measuring electricity flow in two directions” if such a meter is not already installed on premises. AEP Ohio contends that this mandate clearly demonstrates that the General Assembly intended for the customer-generator be responsible for any additional costs of metering technology necessary to enable net metering. And, therefore, it was error for the Commission to find it discriminatory to limit net metering tariffs to SSO customers; in other words, AEP Ohio states that it cannot be discriminatory to mandate that a customer-generator pay the additional cost of metering in order to take advantage of net metering through a CRES provider.

{¶ 14} Turning to the federal law, AEP Ohio submits that PURPA only requires an electric utility to “offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.” 16 U.S.C. §2621(d)(11). Thus, much like its argument under R.C. 4928.67(B)(3)(b), AEP Ohio states that the EDU actually supplying electricity to the customer is a necessary predicate for net metering. As such, AEP Ohio declares that the version of Ohio Adm.Code 4901:1-10-28(B)(1)(a) adopted in the Fifth Entry on Rehearing exceeds the authority found in PURPA.

{¶ 15} In their memorandum contra rehearing, Direct Energy Business, LLC, Direct Energy Services, LLC, and IGS (collectively, IGS/Direct) focus their response on AEP Ohio’s arguments. With regard to DP&L’s subsidy claim, IGS/Direct simply state that the Commission has already considered and rejected the argument. As to AEP Ohio’s argument, IGS/Direct assert that the utility’s interpretations of R.C. 4928.67 and PURPA are incorrect.

{¶ 16} IGS/Direct declare that there is nothing in the statute limiting the standard net metering tariff to SSO customers and that AEP Ohio reads words into the statute that do not exist. In support, they point to R.C. 4928.01(A), which defines retail electric service broadly to include “any service involved in supplying or arranging for the supply of electricity to ultimate consumers,” arguing that it is accurate to say that AEP Ohio supplies retail electric service to all customers in its role as an EDU. Moving on, IGS/Direct firmly criticize AEP Ohio’s suggestion that either R.C. 4928.67(A)(1) or R.C. 4928.67(B)(1) exhibit an intent by the General Assembly to limit the availability of an EDU’s standard net metering tariff to its SSO customers. According to IGS/Direct, the former simply provides guidelines for the substance of what must be included in the tariff, with no mention of to whom it must be offered, while the latter simply states that the customer must pay for a meter. IGS/Direct stress that the meter is but one piece of the complex net metering equation; billing and other informational infrastructure must also be in place. Lastly, IGS/Direct point out that PURPA only reinforces the need for

EDUs to provide net metering to all customers. Explaining, they claim that PURPA deems all distributed energy resources as qualifying facilities (QFs) from which electric utilities are required to purchase electricity unless the utility has demonstrated that the QF has nondiscriminatory access to markets. And, given the rebuttable presumption that QFs with capacity of 20 megawatts or less lack such access, IGS/Direct reason that the EDUs are obligated by PURPA to purchase the output of shopping customer-generators at the utilities' avoided cost, i.e., the energy portion of the SSO rate.

{¶ 17} Initially, the Commission notes that we have, in fact, previously thoroughly addressed and dismissed DP&L's argument against a single net metering tariff. Fifth Entry on Rehearing at ¶ 15-16. Accordingly, because DP&L has not raised any new arguments on rehearing, DP&L's first assignment of error should be denied.

{¶ 18} Furthermore, the Commission disagrees with AEP Ohio's interpretation and application of R.C. 4928.67. The Commission has found that, until all necessary factors are in place, net metering cannot be a truly competitive service. Fifth Entry on Rehearing at ¶ 16. And, until such time as net metering can be transitioned to a fully competitive retail service, it is necessary that the EDUs offer a standard net metering tariff to all customer-generators. Meanwhile, the Commission has provided the means by which an EDU can secure a waiver from this requirement and recover all of the costs of providing net metering. The Commission concludes that this compromise satisfies the statutory mandates of both R.C. 4928.67 and PURPA. AEP Ohio's arguments raise no new challenge to the Commission's conclusions on this topic. Accordingly, AEP Ohio's first assignment of error should also be denied.

{¶ 19} In the event that their first assignments of error are not successful, AEP Ohio and DP&L propose a similar correction to the Fifth Entry on Rehearing: clarification to the Commission's offer of a potential waiver of the standard net metering tariff. DP&L asserts that the Fifth Entry on Rehearing is unreasonable because it requires EDUs to offer a single net metering tariff without codifying the possibility of waiver where the utility

can provide sufficient infrastructure and information to customer-generators and CRES providers. DP&L points out that, while the Commission acknowledged that an EDU could file for a waiver of the rule upon demonstration of full deployment of appropriate advanced meters in its service territory and billing systems that are fully compatible with net metering service provided by CRES providers, the rule itself provides no such reassurances. Moreover, in DP&L's view, a utility should not have to demonstrate territory-wide capabilities to obtain a waiver from offering the net metering tariff to customer-generators who obtain generation through a CRES provider. Instead, citing planned modernization projects, DP&L contends it would be able to implement basic programming and installation of meters capable of providing interval data to CRES providers for net metering customers. As such, DP&L claims that full deployment of advanced meters is not necessary to provide CRES providers with the information they seek for the limited number of net metering customers that currently exist. As such, DP&L urges the Commission to codify and expand the waiver by amending Ohio Adm.Code 4901:1-10-28(B)(1) as follows:

- (1) Each electric utility shall develop a standard net metering tariff and a hospital net metering tariff. The electric utility shall make such tariffs available to customer-generators upon request, in a timely manner, and on a nondiscriminatory basis. An electric utility will not, however, be required to provide a standard net metering tariff to a net metering customer served by a CRES provider if the electric utility can provide the CRES provider hourly interval data for the customer-generator.

~~(a) Each electric utility shall offer a standard net metering tariff to all customers upon request.~~

~~(b)(a)~~ * * *.

~~(c)(b)~~ * * *.¹

¹ Though the subparagraphs would be re-lettered due to the deletion of subparagraph (a), DP&L does not suggest any change to the language of the remaining subparagraphs.

{¶ 20} AEP Ohio's second assignment of error similarly criticizes the Commission's statement considering waiver of the single net metering tariff as tentative and illusory. AEP Ohio submits that the Commission should clarify its position and hold that a formal waiver application is unnecessary where advanced meters have been installed and billing systems are capable of interval billing. In other words, once a customer-generator has an interval meter and the utility's billing system can provide interval data to the CRES provider, AEP Ohio believes there should be a presumption that it is not necessary for the EDU to provide net metering to the shopping customer. Thus, AEP Ohio urges the Commission to permit EDUs to automatically limit the application of their standard net metering tariff to non-shopping customers and shopping customers who do not have an interval meter in lieu of a formal waiver process.

{¶ 21} In response, IGS/Direct present two arguments. First, they contend that the utilities' representations that there is no real impediment to CRES providers offering net metering based on interval data are disingenuous. Instead, IGS/Direct state that, despite the age of this particular docket and obvious movement toward greater deployment of advanced meters, Ohio's EDUs do not, and cannot, use advanced metering infrastructure (AMI) data for settlement or load calculations; nor do they allow a CRES provider AMI data for billing or settlement purposes. IGS/Direct argue that, until the EDUs accommodate these capabilities, they should not be permitted to effectively eliminate net metering for shopping customers simply because an interval meter has been installed. Second, IGS/Direct state that any request to discard or attempt to codify the waiver requirement is premature. Thus, they urge the Commission to maintain the status quo as established in the Fifth Entry on Rehearing.

{¶ 22} The Commission finds that the utilities' arguments on rehearing regarding waiver should be denied. As we determined in the Fifth Entry on Rehearing, further deployment of advanced meters and improvements to the EDUs' billing systems are necessary before the net metering tariffs can be limited to SSO customers. Thus, the

Commission adopted Ohio Adm.Code 4901:1-10-28(B)(1)(a) to reflect the current reality while recognizing the potential for waiver. A waiver, by nature, is granted only upon a showing of good cause based on facts and circumstances presented by an applicant and analyzed by the Commission at the time the waiver is requested. To codify or otherwise dispose of the potential for a formal waiver at present based on what may (or may not) be in the future is not sound policy. However, we do agree with DP&L that territory-wide deployment of advanced meters is unnecessarily restrictive. We will clarify that waivers will be considered from an EDU where there has been significant, if not full, deployment of advanced meters as long as the EDU's billing systems have been upgraded.

[¶ 23] As a final alternative, AEP Ohio presents a third argument on rehearing. AEP Ohio asserts that, if the Commission continues to require EDUs to offer net metering to shopping customers, the Commission should clarify that an EDU's load settlements for PJM should not reflect net negative usage for shopping customers. In short, AEP Ohio reasons that if the EDUs are held responsible for the payment of net negative generation, no reduction past zero should be recognized. Without this clarification, AEP Ohio suggests that for customers currently being settled within PJM at net negative, the PJM supplier charges are lower than they would otherwise be, and the Commission has no insight as to whether the CRES provider is paying the customer for the net negative usage even where it is receiving a reduced charge from PJM for final market settlement. AEP Ohio contends that this situation represents a direct subsidy to the CRES provider at the expense of the EDU's customers. Conversely, if the CRES provider is passing savings through to the net metered customer-generator, that customer is being compensated twice for the same net negative usage. To avoid these consequences, AEP Ohio argues that the Commission should clarify that the EDU should not reflect net negative usage in settlements for shopping customers.

{¶ 24} In their memorandum contra rehearing, IGS/Direct express no objection to limiting customer usage reported to PJM to an amount not less than zero as long as AEP Ohio continues to calculate customer peak load contributions based on actual data.

{¶ 25} The Commission agrees with AEP Ohio that, for the time being, EDUs' load settlements for PJM should not reflect negative usage for shopping customers. We may revisit this issue in the future if the requirement for EDUs to offer net metering to shopping customers is modified, either by rule or through a waiver of this rule for an individual EDU. We also agree with IGS/Direct that the calculation of customer peak load contributions is essential for net metering and is a major benefit of advanced meter deployment; and, we expect all EDUs to continue to provide this calculation when actual data exists and to further expand this capability as advanced meters are deployed.

{¶ 26} IGS presents a single argument on rehearing, stating that the Fifth Entry on Rehearing unjustly, unreasonable, and unlawfully undermines distributed energy resource development by authorizing a monthly monetary "cash out" that unintentionally discourages a customer from self-generating their total energy requirements. Alluding to, but never identifying, Ohio Adm.Code 4901:1-10-28(B)(9)(c)'s mandate that excess electricity be converted to a monetary credit at the energy component of the electric utility's SSO and continuously carry forward as a monetary credit on the customer-generator's future bills, IGS argues that this compensation structure discourages the full development of distributed generation in Ohio. IGS submits that annual netting—under which the customer receives a kilowatt-based credit for excess generation that can be banked for months when usage exceeds generation—is a policy cornerstone that facilitates the deployment of distributed generation. As a corrective measure, IGS urges the Commission to modify the net metering rules to allow for annual netting of net metering credits rather than the monthly netting procedure currently in place.

{¶ 27} AEP Ohio, DP&L, and FirstEnergy each filed a memorandum contra to IGS's application for rehearing. All three, with slight variation, argue that IGS's application is untimely or repetitive to previously raised arguments. AEP Ohio states that IGS previously sought rehearing on Ohio Adm.Code 4901:1-10-28(B)(9)(c) in its December 8, 2017 Application for Rehearing of the Commission's November 2017 Order, and the Commission denied those arguments in the Fifth Entry on Rehearing. This is enough, declares AEP Ohio, to deny IGS's current application. Continuing, however, AEP Ohio also contends that IGS's proposal is contrary to Supreme Court of Ohio precedent and the Commission's decision to base compensatory credits for excess generation on only the energy component of the EDU's SSO rate. DP&L's argument is similar, but goes further to point out that the Commission already rejected a proposal to use a kilowatt-hour-based credit in the November 2017 Order. FirstEnergy repeats these contentions and adds a third: that a kilowatt hour (kWh) rollover credit would violate R.C. 4928.67(B)(3)'s requirement that credit compensation for excess generation be based on monthly billing cycles.

{¶ 28} The Commission agrees with AEP Ohio, DP&L, and FirstEnergy that the issue raised by IGS has been thoroughly considered and rejected in the Commission's previous orders. November 2017 Order at ¶ 41-46; Fifth Entry on Rehearing at ¶ 27-33. Accordingly, the Commission finds that IGS's application for rehearing should be denied.

IV. ORDER

{¶ 29} It is, therefore,

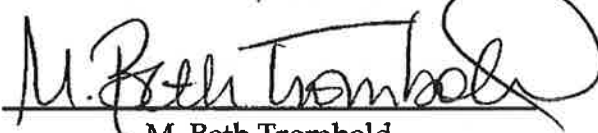
{¶ 30} ORDERED, That the applications for rehearing filed by AEP Ohio, DP&L, and IGS be denied. It is, further,

{¶ 31} ORDERED, That a copy of this Seventh Entry on Rehearing be served upon all parties of record.

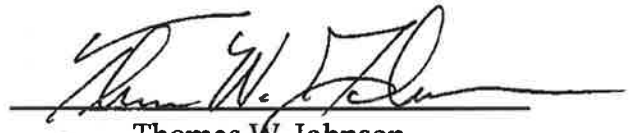
THE PUBLIC UTILITIES COMMISSION OF OHIO



Asim Z. Haque, Chairman



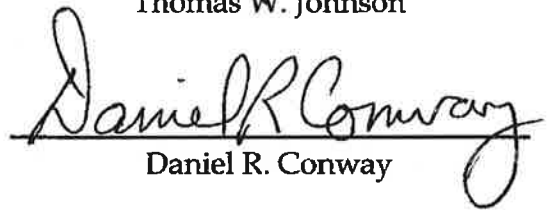
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Entered in the Journal

FEB 27 2019



Tanowa M. Troupe
Secretary

**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of the)	
Commission's Review of Chapter)	Case No. 12-2050-EL-ORD
4901:1-10 Ohio Administrative Code)	
Regarding Electric Companies)	

**APPLICATION FOR REHEARING BY
THE ENVIRONMENTAL LAW & POLICY CENTER, OHIO ENVIRONMENTAL
COUNCIL, ENVIRONMENTAL DEFENSE FUND, NATURAL RESOURCES DEFENSE
COUNCIL, AND VOTE SOLAR**

Pursuant to Ohio Revised Code ("R.C.") 4903.10 and Ohio Adm. Code 4901-1-35, the Environmental Law & Policy Center, Ohio Environmental Council, Environmental Defense Fund, Natural Resources Defense Council, and Vote Solar hereby file this application for rehearing of the November 8, 2017 Finding and Order ("Order") of the Public Utilities Commission of Ohio ("Commission") in this proceeding. The Commission's Order adopted amendments to the net metering rule contained in Ohio Adm. Code 4901:1-10-28. Among other rulings, the Commission's Order directed that utilities should not provide any compensation to net metered customer-generators for capacity value provided by excess generation from net metering systems.

As further explained in the accompanying Memorandum in Support, removing the capacity component from compensation for net metered customer-generators is unlawful and unreasonable for three reasons:

1. The Commission's decision to remove the capacity component from compensation is unlawful because it treats net metered customer-generators less favorably than non-net metered customers, in direct violation of the requirement under R.C. 4928.67 that net metering customer-generators be treated identically.

2. The Commission unreasonably removed compensation for the capacity value that net metered customer-generators provide to the utility and other ratepayers, since the utility can forecast generation from net metering systems at peak times to reduce capacity purchase requirements. Ignoring that generation during times of peak demand allows the utility to buy more capacity than it actually needs, saddling all customers with the additional cost.
3. The Commission unreasonably relies on time-of-use tariffs as sufficient to fully compensate net metered customer-generators, without noting that many Ohio customers must pay high fees for new meters to participate in time-of-use rates (if they exist at all), and existing time-of-use rates are not well-designed to compensate net metered customer-generators for contributions to lowering peak demand.

December 8, 2017

Respectfully submitted,

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**BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the Application of the)	
Commission's Review of Chapter)	Case No. 12-2050-EL-ORD
4901:1-10 Ohio Administrative Code)	
Regarding Electric Companies)	

**MEMORANDUM IN SUPPORT OF APPLICATION FOR REHEARING BY
THE ENVIRONMENTAL LAW & POLICY CENTER, OHIO ENVIRONMENTAL
COUNCIL, ENVIRONMENTAL DEFENSE FUND, NATURAL RESOURCES DEFENSE
COUNCIL, AND VOTE SOLAR**

I. INTRODUCTION

The Environmental Law & Policy Center ("ELPC"), Ohio Environmental Council ("OEC"), Environmental Defense Fund ("EDF"), Natural Resources Defense Council ("NRDC") and Vote Solar (collectively, "Environmental Advocates") seek rehearing of the November 8, 2017 Finding and Order ("Order") of the Public Utilities Commission of Ohio ("Commission") in this proceeding. The Commission's Order precludes net metered customer-generators from receiving credit for the capacity value of their excess generation. The Environmental Advocates applaud the Commission for moving toward statewide consistency in net metering compensation. However, that statewide policy must, as required by R.C. 4928.67, put net metered customer-generators on the same footing as other customers, including by valuing their contributions to reducing peak demand on equal terms.

The decision to calculate net metered customer-generators' credit for excess generation to include only the energy component of the utility's standard service offer fails to account for the fact that net metered customer-generators can predictably reduce demand at peak times. Ignoring that peak reduction gives utilities a free pass to purchase more capacity than they need, resulting in higher costs for all customers. Or, if utilities do actually incorporate excess

generation from net metered customer-generators into their load forecasts as a demand-side reduction and procure less capacity as a result, then those net metered customer-generators are in fact providing capacity value to the system for which they should be fairly compensated.

Moreover, the Commission's reliance on the use of advanced meters and time-of-use rates as a mechanism to account for the value of distributed generation in reducing peak demand is premature and unreasonable. Many Ohio utility customers would have to pay high fees for installation of smart meters and communications technology to even potentially be able to utilize such rates. To the extent time-of-use rates are available, an initial examination suggests they are not necessarily well-suited to valuing generation by net metered customer-generators at peak times. For these reasons and as further detailed below, the Order is therefore unlawful and unreasonable under R.C. 4903.10 and O.A.C. 4901-1-35.

II. FACTS

The Commission has previously ruled on the issue of capacity compensation for net metering customer-generators in this same proceeding. The Commission began this five year rule review in 2012, pursuant to R.C. 111.15(B), which requires all state agencies to conduct a review of their rules every five years, and determine whether to continue the rules without change, amend, or rescind the rules. ELPC, OEC, and Vote Solar, as well as other environmental advocates, submitted comments on how to improve the net metering rules in Ohio.¹

When the Commission issued a final rule on January 15, 2014, the rule *did* require utilities to provide net metered customer-generators with credit for the capacity value of excess

¹ See Joint Comments of ELPC, Sierra Club, OEC, Solar Energy Industries Association ("SEIA"), and Vote Solar Initiative (Jan. 7, 2013); Reply Comments of ELPC, Sierra Club, OEC, SEIA, and Vote Solar Initiative (Feb. 6, 2013).

generation. In its Second Entry on Rehearing, the Commission explained that decision as follows:

While Ohio Power may contend that it does not receive capacity from the customer generator, this is an oversimplification of the issue. In reality, the net metering customer-generator has offset their demand, which requires less capacity to be procured by the EDU for the area. While Ohio Power may not receive a supply of capacity from the customer-generator, it has in actuality received a demand-side reduction in the amount of capacity that it must procure.²

The Commission affirmed this approach in a Third Entry on Rehearing, further noting that,

this determination is consistent with R.C. 4928.67(A)(1), which requires that the contract or tariff for net metering must be identical in rate structure, all retail rate components, and any monthly charges to the contract or tariff to which the same customer would be assigned if that customer were not a customer-generator. . . . Additionally, by using the SSO rate, the Commission ensures that customer-generators are credited for providing electricity without requiring that a demand meter be installed.³

Although the Commission finalized the net metering rule in July 2014, it subsequently withdrew the rule from Joint Committee on Agency Rule Review prior to it taking effect. In November 2015, the Commission issued a new proposed rule for stakeholder comment, which, like the final 2014 version of the rule, provided for net metering customer-generators to receive compensation for the capacity value of their excess generation. The Environmental Advocates and other interested stakeholders filed comments and reply comments pursuant to the Commission order in December 2015 and January 2016.⁴

Nearly two years after the most recent comments were filed by interested stakeholders, the Commission issued its November 8, 2017 Order with a final net metering rule. According to the Order, “the credit for excess generation for customer-generators on the utility’s standard net

² Second Entry on Rehearing (May 28, 2014) at 21.

³ Third Entry on Rehearing (July 23, 2014) at 5-6.

⁴ Joint Comments of ELPC, OEC, Natural Resources Defense Council (“NRDC”), EDF, and Vote Solar (Dec. 18, 2015); Joint Reply Comments of ELPC, OEC, and NRDC (Jan. 8, 2016); Letter Supporting the Joint Reply Comments of the ELPC, OEC, and NRDC by EDF (Jan. 15, 2016).

metering tariff shall be a monetary credit calculated at the energy-only component of the electric utility's standard service offer ("SSO") and applied to a customer-generator's total bill."⁵ The Commission dismissed the idea of providing compensation for the capacity value of excess generation based solely on the cursory statement that, "[a]s Duke points out in its reply comments, the electric utilities must maintain capacity in order to meet customer demand at peak usage."⁶ At the same time, the Commission did recognize that "customer-generators may generate electricity at times of peak demand, and with advanced meters capable of measuring hourly interval usage data, these peak load contributions should be incorporated into a customer-generator's bill."⁷ However, the Commission ruled that "customer-generators using advanced meters should receive the benefit of their peak load contributions in the form of lower bills for electric service, instead of in the form a higher credit for excess generation."⁸

The result of the Commission's approach is that net metered customer-generators have two choices: (1) to receive no compensation for the capacity value of their excess generation; or, (2) to pursue appropriate compensation for their peak reduction value through time-of-use tariffs, a route with many obstacles not addressed by the Commission's Order.

III. ARGUMENT

The Commission's Order properly recognizes the fact that "customer-generators may generate electricity at times of peak demand,"⁹ producing important benefits by decreasing the amount of capacity that utilities must purchase at such times and lowering overall prices for all customers. That is especially true for distributed solar, by far the predominant type of net

⁵ Order at 17.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

metered generation in Ohio,¹⁰ which tends to generate the most electricity during times of peak demand on hot, sunny days.¹¹ The main point of dispute between the Commission and Environmental Advocates is how the net metering rule should appropriately compensate this value in order to maximize benefits for all Ohio ratepayers.

The Commission has effectively held that net metered customer-generators should either receive zero compensation for the capacity value of their excess generation at times of peak demand, or should be compensated by saving more money on their bills at times of peak demand through a time-of-use rate. That approach is unlawful and unreasonable for three reasons. Foremost, R.C. 4928.67 requires utilities to provide net metered customer-generators with contracts and tariffs that are “identical in rate structure,” including “all retail rate components” to the tariffs for non-customer-generators. The Commission’s Order violates R.C. 4928.67 by compensating net metered customer-generators for lowering peak system demand differently than non-customer-generators who get full capacity compensation for helping to decrease peak system demand. Second, the Commission’s approach may leave some net metered customer-generators with no compensation for their capacity value, inconsistent with broad national recognition that distributed generation can in fact reliably help to meet peak demand. Finally, the Commission unreasonably concluded, without any supporting factual analysis, that time-of-use tariffs are sufficient to fully compensate net metered customer-generators, when an initial

¹⁰ According to information collected by the U.S. Energy Information Administration (“EIA”), as of the end of 2016 there were 3,171 total net metered customer-generators in Ohio, of which 2,836 had photovoltaic (solar) installations. Looking specifically at residential customers, 2,122 of the 2,331 net metered residential customer-generators in Ohio in 2016 had solar installations. Form EIA-861M, 2016 Net Metering Detailed Data, *available at* <https://www.eia.gov/electricity/data/eia861m>.

¹¹ As examples of typical peak load in Ohio: in 2016, AEP Ohio’s peak system load was August 11 at 1 pm, FirstEnergy’s peak load was August 11 at 3 pm, Duke’s peak load was July 25 at 2 pm, and Dayton Power & Light’s peak load was July 25 at 5 pm. Case No. 17-501-EL-FOR, AEP Long-Term Forecast Report (April 17, 2017) at 53; Case No. 17-913-EL-FOR, FirstEnergy Long-Term Forecast Report (Apr. 17, 2017) at 34; Case No. 17-888-EL-FOR, Duke Long-Term Forecast Report (June 29, 2017) at 34; Case No. 17-1928-EL-FOR, Dayton Power & Light Long-Term Forecast Report (Apr. 11, 2017) at 42.

review suggests that time-of-use tariffs are not easily available to many Ohio customers and may be poorly designed for purposes of sending the right market signal regarding the value of generation at times of peak demand.

A. The Commission’s Order is unlawful because Ohio Revised Code 4928.67(A)(1) requires net metering tariffs for net metered customer-generators to be identical in rate structure and components to tariffs for non-net metered customers.

The statute and underlying current regulations governing net metering require that net metering tariffs provide net metered customer-generators with a credit for excess generation during a billing period.¹² The net metering statute also provides that net metering tariffs and contracts, “*shall be identical in rate structure, all retail rate components, and any monthly charges to the contract or tariff to which the same customer would be assigned if that customer were not a customer-generator.*”¹³ (Emphasis added.) Moreover, as the Commission recognized in issuing the 2014 version of this rule, R.C. 4928.67(B)(3)(b) specifies that a net metering credit shall be for the value of the “electricity” generated, not for some subcomponent of that value.¹⁴

The language of R.C. 4928.67(A) makes clear that the legislature has resolved this issue in a way that appropriately encourages the deployment of distributed generation in Ohio on equal footing with other resources: rates for net metered customer-generators must be “identical” to those for non-net metered customers. For net metered customer-generators to have an “identical” rate structure and components, their contribution to lowering peak demand should be treated the same as any other customer’s, regardless of whether they do so by lowering their electricity usage or by proactively providing electricity to the grid. Under the utilities’ standard service offer tariffs, a non-net-metered customer saves money on the both the energy *and* capacity components of their bill when they contribute to lower system demand at peak times by

¹² R.C. 4928.67(B)(3)(b); O.A.C. 4901:1-10-28(A)(6)(c).

¹³ R.C. 4928.67(A)(1).

¹⁴ Third Entry on Rehearing at 5.

reducing their electricity usage. This reflects the fact that, as long as the utility can produce a reasonable forecast of that usage, the utility can accordingly procure less capacity. As the Commission previously held in its Second Entry on Rehearing in this proceeding, the same principle holds true for net metering customer-generators that generate excess electricity:

[T]he net metering customer-generator has offset their demand, which requires less capacity to be procured by the EDU for the area. While . . . [the utility] may not receive a supply of capacity from the customer-generator, it has in actuality received a demand-side reduction in the amount of capacity that it must procure.¹⁵

As explained further below, multiple jurisdictions have similarly recognized the ability for distributed generation to reliably reduce capacity requirements.

Thus, the Commission's decision on this point was simply outside its statutory authority. The legislature has spoken on this issue by requiring equal treatment of net metered customer-generators with non-net metered customers, and for good reason: the electrons traveling to and from their houses and facilities are the same. Those electrons should be valued in the same way in order to avoid artificial barriers to deployment of distributed generation consistent with state policy under R.C. 4928.02(C) and (K). The reimbursement rate for net metered customer-generators must therefore reflect that they provide a valuable service to the distribution utility—the same as any other customer that contributes to lower peak demand. Lower peak demand means lower prices for all. Less strain during peak usage times also increases the overall reliability of the electric grid, ensuring that customers who need electricity will have it when they need it. The Commission must provide full compensation for net metered customer-generators to maximize these benefits for all customers and to comply with R.C. 4928.67.

B. Net metering customer-generators provide capacity value to the grid, allowing the utility to purchase less capacity because they can reliably lower peak demand.

¹⁵ Second Entry on Rehearing at 21 (citing *FirstEnergy Corp. v. Pub. Util. Comm.*, 2002-Ohio-2430, ¶ 13 (“R.C. 4928.67 and the commission's net-metering rule speak in terms of measuring and charging or crediting for ‘electricity’ produced or consumed.”)).

1. Distributed generation can reliably lower peak demand and reduce capacity requirements.

As discussed above, the Commission itself has recognized that distributed generation can lower capacity requirements and thus benefit all customers.¹⁶ A string of thorough analyses by regulators, utilities, and advocates supports this conclusion. In recent years, PJM has even built the value of distributed solar into the load forecasting process for its capacity auctions. The Commission's elimination of compensation for this capacity value is unreasonable because it fails to confront the significant factual record showing that the capacity value of distributed generation can be and has been quantified. Where there is such value, the Commission must compensate it in order to "[e]nsure the availability to consumers of adequate, reliable, safe, efficient, nondiscriminatory, and reasonably priced retail electric service" pursuant to R.C. 4928.02(A), and to appropriately encourage the deployment of distributed generation as required by R.C. 4928.02(C) and (K).

Numerous other jurisdictions have recognized the capacity value of distributed generation in both technical studies and in rate design. The Environmental Advocates provided several citations to analyses quantifying the capacity value of distributed solar, which is by far the most common type of distributed generation in Ohio, in our January 8, 2016 Reply Comments.¹⁷ For even more examples, Figure 1 below, sourced from a report created for the South Carolina Public Service Commission, provides a sample list of past studies of the benefits and costs of distributed generation.¹⁸ (Nearly all of the studies focus on distributed solar because it is the

¹⁶ *Supra* at 7; Second Entry on Rehearing at 21.

¹⁷ Joint Reply Comments of ELPC, OEC, and NRDC (Jan. 8, 2016) at 5 n.6; *supra* n. 10.

¹⁸ Energy and Environmental Economics ("E3"). *South Carolina Act 236 Cost Shift and Cost of Service Analysis* (Dec. 18, 2015) (prepared on behalf of South Carolina Office of Regulatory Staff), available at <http://www.regulatorystaff.sc.gov/electric/industryinfo/Documents/Act%20236%20Cost%20Shifting%20Report.pdf>.

predominant type of distributed generation installed by utility customers, as is the case in Ohio.)

As shown in the third column of the list of benefits examined, despite the numerous variations in the methodology employed for individual analyses, every single study represented in this sample contains an evaluation of capacity value. The details of the methodologies differ for a variety of reasons (e.g., location, presence of a wholesale capacity market, etc.), but at a high level they all ascribe some affirmative capacity value to distributed solar (*i.e.*, net metering customer-generators) on the basis of how typical solar performance reliably aligns with peak system loads that drive the need for generation capacity. These studies show that net metered customer-generators provide benefits to the grid that go beyond the mere energy component of generation, and that value should be recognized by the Commission.

Figure 1: Value of Solar and NEM Cost-Benefit Study Examples

EXAMPLES OF RECENT NEM VALUE STUDIES FROM STATES, UTILITIES, CONSULTANCIES, AND STAKEHOLDERS																									
STATE	STUDY	BENEFITS ANALYZED										COSTS ANALYZED				BENEFIT/COST TESTS									
		Avoided Energy (incl. O&M, fuel costs)	Avoided Fuel Hedge	Avoided Capacity (generation and reserve)	Avoided Losses	Avoided or Deferred T&D Investment	Avoided Ancillary Services	Market Price Reduction	Avoided Renewables Procurement	Monetized Environmental	Social Environmental	Security Enhancement/Risk	Societal (incl. economic/job)	PV Integration	Program Administration	Bill Savings (Utility Revenue Loss)	Utility/DER Incentives	Total Resource Cost Test (TRC)	Program Administrator/Utility Cost Test (PACT/UCT)	Cost of Service (COS) Analysis	Ratpayer Impact Measure (RIM)	Participant Cost Test (PCT)	Societal Cost Test (SCT)	Revenue Requirement Savings: Cost Ratio	Net Cost Comparison of NEM, FIT, Other
	Included	•																							
	Included as a sensitivity	•																							
	Represented/captured in other values	•																							
ARIZONA	Crossborder Energy (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ARIZONA	APS/SAIC (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CALIFORNIA	E3 (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
CALIFORNIA	Crossborder Energy (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
COLORADO	Xcel (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
HAWAII	E3 (2014)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MAINE	Clean Power Research (2015)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MASSACHUSETTS	La Capra Associates (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MICHIGAN	NREL (2012)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MINNESOTA	Clean Power Research (2014)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MISSISSIPPI	Synapse Energy Economics (2014)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
NORTH CAROLINA	Crossborder Energy (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
NEW JERSEY	Clean Power Research (2012)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SOUTH CAROLINA	E3 (2015)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
NEVADA	E3 (2014)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PENNSYLVANIA	Clean Power Research (2012)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TENNESSEE	TVA (2015)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TEXAS (AUSTIN)	Clean Power Research (2014)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TEXAS (SAN ANTONIO)	Clean Power Research (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VERMONT	Vermont PSC (2013)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

These studies find that distributed generation, especially distributed solar, has reliable capacity value even though environmental conditions affect solar generation. The capacity values are calculated to reflect expected output at the typical peak times, which tend to be consistent from year to year (e.g., late afternoons on hot days). They also base production estimates on historical weather data which, at an average level, takes into account the likelihood of clouds and precipitation. The risk of unavailability is therefore already baked into the estimates. Additionally, it is worth noting that the wide geographic distribution of small distributed solar systems tends to reduce the variability in generation caused by local conditions like clouds. Whereas a single large cloud may significantly reduce solar production from a centralized solar power station, the effects on an aggregate collection of distributed systems are diluted because only a few fall in its shadow at any given time. While there may be variations in how each study forecasts generation from distributed solar at peak times, in aggregate they show that the Ohio utilities can feasibly incorporate distributed generation into their load forecasts in order to reduce their capacity requirements and save money for customers.

In addition to these studies, it is notable that PJM has in recent years offered practical recognition of the ability of distributed solar to reliably reduce peak demand. As described in Environmental Advocates' January 8, 2016 Reply Comments, as of 2016 PJM has incorporated distributed solar into its peak load forecasts for purposes of determining wholesale capacity requirements to be met through its capacity auctions.¹⁹ The latest forecast from November 2017 projects the addition of hundreds of megawatts of distributed solar in Ohio over the next decade, which will decrease peak demand in the relevant PJM zones and thus lower capacity prices for

¹⁹ Joint Reply Comments of ELPC, OEC, and NRDC (Jan. 8, 2016) at 4 & nn. 3, 4.

all customers in those markets.²⁰ However, a key component in realizing these benefits and developing the market for distributed generation is to recognize and compensate the value of distributed generation in reliably reducing peak demand.

The Commission's Order considers none of this record evidence demonstrating that credit for capacity value is justified. The sum total of the Commission's discussion of this issue is that "the electric utilities must maintain capacity in order to meet customer demand at peak usage."²¹ The above evidence shows that the utilities can do so using reliable methodologies for calculating peak demand reduction contributions from distributed solar, just as PJM currently does, and that those peak demand reduction contributions can lower costs for all customers. The Commission does not need to precisely quantify this value in order to recognize and account for it in net metering rate design, but rather must simply recognize the evidence showing that there is some capacity value from distributed generation. Instead, the Commission unreasonably ignored this evidence.

2. It is unreasonable to ignore the capacity value of distributed generation in setting rules for net metering rates.

As explained above, R.C. 4928.67(A) resolves the policy debate of whether the Commission may treat net metered customer-generators differently in non-net metering customers in setting rates. However, even if the General Assembly had not made that decision, reason would require the Commission to account for the factual evidence of the capacity value of distributed generation in net metering rates in order to appropriately encourage its deployment and put it on an even footing with other electricity resources, consistent with R.C. 4928.02(C)

²⁰ PJM 2017 Load Forecast Report (Jan. 2017), <https://www.pjm.com/~media/library/reports-notices/load-forecast/2017-load-forecast-report.ashx>, Table B-8; PJM Load Analysis Subcommittee, Distributed Generation Update (Nov. 15, 2018) at 14, 15, 40, *available at* <http://www.pjm-miso.com/~media/committees-groups/subcommittees/las/20171115/20171115-item-03-pjm-distributed-solar-generation-forecast-2018.ashx>.

²¹ Order at 17.

and (K). Regulators in other jurisdictions have applied the concept of the capacity value of solar in making real-world decisions about rates. As noted in the Environmental Advocates' comments in these proceedings, numerous other regulators in the region and across the nation require that utilities credit excess generation from distributed generation at the full retail rate.²² It is true that these credits may not exactly match the capacity value of each individual distributed generation system. However, they provide "rough justice" in compensating for that capacity value in order to appropriately incentivize deployment of a resource that benefits *all* utility customers by preventing utilities from buying more electricity than they actually need at a higher cost.

As one example, in 2014, South Carolina Act 236 established a net metering program as well as targets and incentives for DG installations in the state. In the initial rulemaking that established the terms and conditions for net metering, Duke Energy Carolinas ("DEC") and Duke Energy Progress ("DEP") were signatories to a settlement agreement under which the valuation methodology for net metered generation includes a benefit component for avoided marginal capacity costs. The calculation is based on the utilities' most recent integrated resource plan or avoided cost formula for qualifying facilities under the Public Utility Regulatory Policies Act ("PURPA").²³ These values are updated annually in each utility's fuel clause adjustment update.²⁴ In DEC service territory, the most recently adopted value is 1.399 cents/kWh.²⁵ In DEP service territory, the most recently adopted value is 1.328 cents/kWh.²⁶ Similarly, earlier

²² Joint Reply Comments of ELPC, OEC, and NRDC (Jan. 8, 2016) at 6 & n.7.

²³ South Carolina Public Service Commission, Case No. 2014-246-E, *In re Generic Proceeding Pursuant to the Distributed Energy Resource Program Act*, Order No. 2015-0194 (Mar. 20, 2015) at 8.

²⁴ *Id.* At 22.

²⁵ South Carolina Public Service Commission, Case No. 2017-3-E, *In re Annual Review of Base Rates for Fuel Costs of Duke Energy Carolinas, LLC*, Order No. 2017-597 (Oct. 17, 2017) at 17.

²⁶ South Carolina Public Service Commission, Case No. 2017-1-E, *In re Annual Review of Base Rates for Fuel Costs of Duke Energy Progress, LLC*, Order No. 2017-405(A) (Oct. 11, 2017) at 6.

this year the Michigan Public Service Commission set a new avoided cost methodology for compensating qualifying facilities under PURPA that likewise recognizes a capacity value for the generation from those facilities.²⁷ Taking into account “the availability and reliability of output from the” facility, the Michigan PSC provided for capacity compensation at a rate derived from the avoided capacity cost of a natural gas combustion turbine.²⁸

Both of these examples show that, as a practical matter, resource planning (including Ohio utilities’ procurement of capacity for SSO customers) can incorporate distributed generation resources in order to realize their capacity value. Therefore, it was unreasonable for the Commission to limit the valuation of excess generation from net metered customer-generators to its energy value.

C. Ohio utilities have yet to fully deploy advanced meters and develop time-of-use tariffs sufficient to fully compensate net metered customer-generators.

The Commission’s Order concludes that net metered customer-generators will receive appropriate compensation for their contributions to reducing peak load through time-of-use pricing using advanced meters.²⁹ That approach rests on two incorrect premises. First, many Ohio customers do not have advanced meters, including net metered customer-generators, and would be required to pay extra fees to obtain them. Further, to the extent Ohio utilities have developed time-of-use tariffs, the design of those tariffs has never been tailored to recognize the full benefits conferred by distributed generation in reducing peak demand.

U.S. Energy Information Administration (“EIA”) data shows that, as of 2016, millions of Ohio customers did not have the “advanced” meters necessary for them to participate in time-of-use tariffs. Approximately two million FirstEnergy customers and more than 200,000 Dayton

²⁷ Michigan Public Service Commission, Case No. U-18090, *In re Method and Avoided Cost Calculation for Consumers Energy Co. to Comply with PURPA*, Opinion and Order (Nov. 21, 2017) at 1-2.

²⁸ *Id.* at 2, 3.

²⁹ Order at 17.

Power & Light customers had neither AMR nor AMI meters.³⁰ The same is true for more than 700,000 AEP customers, and although AEP is planning to deploy smart meters more fully across its territory, that process will not be complete for another three years.³¹ There are no such plans for FirstEnergy and Dayton Power & Light.

For many of these customers, the utility simply has no time-of-use tariffs available. That is the case for residential customers in FirstEnergy and Dayton Power & Light territory.³² For example, FirstEnergy's Standard Service Offer tariff has no time-of-day option for residential "RS" customers, and thus there is no residential net metered customer-generator option available that offers higher compensation for electricity generated at times of peak demand.³³

Furthermore, even if FirstEnergy were to develop a residential time-of-day rate, under the relevant metering tariff³⁴ a customer must pay a \$105 fee for installation of a time-of-day meter, and must also either provide a communication link to the utility or pay a \$50 per month fee for a utility-provided link. In other words, a residential net metered customer-generator in the territory of a utility without universal smart meter deployment would be subject to sizeable, unique charges not applicable to a normal residential customer in order to obtain any excess generation compensation through time-of-use rates based on their contribution to reducing peak demand. Such a situation violates R.C. 4928.67(A) and certainly, as a practical matter, would deter a customer from going down this path.

³⁰ U.S. Energy Information Administration, Form 861, 2016 Advanced Meters Data, *available at* <https://www.eia.gov/electricity/data/eia861>.

³¹ Pub. Util. Comm. Ohio, Case No. 13-1939-EL-RDR, *In re AEP gridSMART Phase 2*, Opinion and Order (Feb. 1, 2017) at 8 (approving stipulation for AEP installation of 894,000 smart meters, which is expected to take 48 months from the issuance of the order).

³² See Exhibits A and B (FirstEnergy and DP&L SSO tariffs).

³³ Exhibit A.

³⁴ See Exhibit C (FirstEnergy – Ohio Edison metering tariff).

Even for those utility territories where customers can have smart meters installed without being subject to special fees, it is by no means clear that the existing time-of-day rates are appropriate for net metering customer-generators to “receive the benefit of their peak load contributions in the form of lower bills for electric service” as the Commission contemplated.³⁵ For example, under AEP’s current time-of-day rate for SSO customers, the time-varying portion of the rate is only in the Generation Capacity Rider.³⁶ Since a participating net metered customer-generator would receive excess generation credit only under AEP’s Generation Energy Rider, this rate may not fully compensate for the peak demand reduction value of that excess generation. Additionally, AEP has very broadly defined on-peak and off-peak hours, setting on-peak hours as 7 a.m. to 9 p.m. on non-holiday weekdays. Without a critical peak pricing structure that more specifically offers higher compensation for the few hours of the highest system peak, this time-of-day tariff will not send the right signal regarding the value of distributed generation at peak demand.

At the least, these issues highlight the importance of the Commission conducting some analysis of existing time-of-use rates before presuming that they are an appropriate vehicle for compensating the capacity value of excess generation from net metering systems. The Commission’s ongoing PowerForward initiative offers an ideal opportunity to delve into these important questions. However, it is unreasonable for the Commission to eliminate net metered customer-generators’ access to credit for capacity value through the SSO rate before the utilities have established viable rate options for customers to be fairly compensated.³⁷ While the

³⁵ Order at 17.

³⁶ Exhibit D (AEP SSO tariff).

³⁷ Although customers have the option to enter into a net metering contract with a competitive supplier, such a supplier is unlikely to offer any compensation for capacity value without the customer having an advanced meter that can provide the information necessary for an individual Peak Load Contribution calculation and settlement at PJM. Furthermore, without any knowledge of what net metering contracts

Commission and participating stakeholders are having the necessary conversations about how to best value the contributions of distributed generation in reducing peak demand, the reasonable approach in the meantime, and the approach required under R.C. 4928.67, is to provide compensation for excess generation at the SSO rate to ensure fair and non-discriminatory compensation for net metering customer-generators.

IV. CONCLUSION

The Commission's decision to remove the capacity component from compensation is unlawful because it fails to treat net metering customer-generators identically, as required by R.C. 4928.67. Further, as a practical matter, if the Public Utilities Commission of Ohio fails to account for the fact that excess generation from rooftop solar and other net metered customer-generators does in fact reduce peak demand and provide appropriate compensation to those net metered customer-generators, the market will not get the right signal. Ohio will see fewer people installing solar, resulting in higher peak demand and higher prices for all customers. The Environmental Advocates therefore respectfully request reconsideration of the November 8, 2017 Finding and Order in the above-captioned case.

December 8, 2017

Respectfully submitted,

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may be offered by competitive suppliers, the Commission must make sure the utility net metering tariff offers a reasonable default option compliant with Ohio law.

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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Application for Rehearing has been electronically filed with the Public Utilities Commission of Ohio and has been served upon all parties to the case via electronic mail on December 8, 2017.

/s/ Miranda Leppla

Miranda R. Leppla

RIDER GEN
Generation Service Rider

APPLICABILITY:

For customers taking the Standard Service Offer electric generation service ("SSO Generation Service") from the Company, the following Standard Service Offer Generation Charges (SSOGC) by rate schedule, will apply, effective for service rendered beginning June 1, 2017, for all kWhs per kWh, unless otherwise noted. For billing purposes, the winter rates shall be applicable during each winter billing period as defined in the Electric Service Regulations.

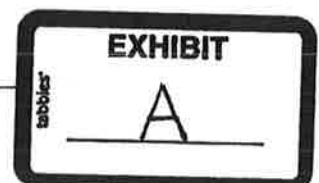
Capacity costs will be developed based on the results from annual PJM capacity auctions (including incremental auctions) and allocated to each Company and tariff schedule based on the average of coincident peaks, including distribution losses, for the months of June through September of the year prior to the applicable PJM delivery year. The calculated wholesale capacity costs are used to develop capacity charges.

These calculated wholesale capacity costs will be converted to an energy basis and will then be subtracted from the SSO competitive bid process ("CBP") results to develop the non-capacity related energy charges.

RATE:

<u>Capacity Charges</u>	<u>Summer</u>	<u>Winter</u>
RS*	1.6303¢	1.6303¢
GS	1.4407¢	1.4407¢
GP	1.2457¢	1.2457¢
GSU	1.0247¢	1.0247¢
GT	0.8775¢	0.8775¢
STL	0.0000¢	0.0000¢
TRF	1.0901¢	1.0901¢
POL	0.0000¢	0.0000¢
<u>Energy Charges</u>	<u>Summer</u>	<u>Winter</u>
RS*	4.7100¢	3.8771¢
GS	4.7100¢	3.8771¢
GP	4.5468¢	3.7429¢
GSU	4.4192¢	3.6379¢
GT	4.4148¢	3.6342¢
STL	4.7100¢	3.8771¢
TRF	4.7100¢	3.8771¢
POL	4.7100¢	3.8771¢

* Customers participating in the Percentage of Income Payment Plan (PIPP) program shall pay 5.4170¢, for all kWh per kWh, in lieu of the Rate RS Capacity and Energy Charges shown above.



RIDER GEN
Generation Service Rider

TIME-OF-DAY OPTION:

For customers with the appropriate qualifying time-of-day metering and who elect to be served under the Time-Of-Day Option, the charge by rate schedule will be as shown below, for all kWhs, per kWh:

<u>Capacity Charges</u>	<u>Summer</u>			<u>Winter</u>		
	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>
GS	1.4407¢	1.4407¢	1.4407¢	1.4407¢	1.4407¢	1.4407¢
GP	1.2457¢	1.2457¢	1.2457¢	1.2457¢	1.2457¢	1.2457¢
GSU	1.0247¢	1.0247¢	1.0247¢	1.0247¢	1.0247¢	1.0247¢
GT	0.8775¢	0.8775¢	0.8775¢	0.8775¢	0.8775¢	0.8775¢

<u>Energy Charges</u>	<u>Summer</u>			<u>Winter</u>		
	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>
GS	8.2905¢	5.2903¢	3.1557¢	4.5568¢	5.2097¢	2.9361¢
GP	8.0033¢	5.1070¢	3.0464¢	4.3990¢	5.0293¢	2.8345¢
GSU	7.7787¢	4.9636¢	2.9609¢	4.2756¢	4.8882¢	2.7550¢
GT	7.7709¢	4.9587¢	2.9579¢	4.2713¢	4.8833¢	2.7522¢

Midday-peak time shall be noon to 6 p.m. EST, Monday through Friday, excluding holidays.

Shoulder-peak time shall be 6 a.m. to noon and 6 p.m. to 10 p.m. EST, Monday through Friday, excluding holidays.

Holidays are defined as New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Off-Peak shall be all other hours.

A customer may terminate its participation in this time-of-day option at any time effective with the next scheduled meter reading. A qualifying customer may return to the time-of-day option at any time after a hiatus from the time-of-day option of at least one (1) year.

METERING:

The customer must arrange for time-of-day metering consistent with the Company's Miscellaneous Charges, Tariff Sheet 75.

Filed pursuant to Orders dated March 31, 2016, and May 24, 2017, in Case Nos.

14-1297-EL-SSO and 17-338-EL-RDR before

The Public Utilities Commission of Ohio

Issued by: Steven E. Strah, President

Effective: June 1, 2017

RIDER GEN
Generation Service Rider

APPLICABILITY:

For customers taking the Standard Service Offer electric generation service ("SSO Generation Service") from the Company, the following Standard Service Offer Generation Charges (SSOGC) by rate schedule, will apply, effective for service rendered beginning June 1, 2017, for all kWhs per kWh, unless otherwise noted. For billing purposes, the winter rates shall be applicable during each winter billing period as defined in the Electric Service Regulations.

Capacity costs will be developed based on the results from annual PJM capacity auctions (including incremental auctions) and allocated to each Company and tariff schedule based on the average of coincident peaks, including distribution losses, for the months of June through September of the year prior to the applicable PJM delivery year. The calculated wholesale capacity costs are used to develop capacity charges.

These calculated wholesale capacity costs will be converted to an energy basis and will then be subtracted from the SSO competitive bid process ("CBP") results to develop the non-capacity related energy charges.

RATE:

<u>Capacity Charges</u>	<u>Summer</u>	<u>Winter</u>
RS*	1.7325¢	1.7325¢
GS	1.4056¢	1.4056¢
GP	1.0344¢	1.0344¢
GSU	1.0630¢	1.0630¢
GT	0.7690¢	0.7690¢
STL	0.0000¢	0.0000¢
TRF	0.9839¢	0.9839¢
POL	0.0000¢	0.0000¢
<u>Energy Charges</u>	<u>Summer</u>	<u>Winter</u>
RS*	4.7100¢	3.8771¢
GS	4.7100¢	3.8771¢
GP	4.5468¢	3.7429¢
GSU	4.4192¢	3.6379¢
GT	4.4148¢	3.6342¢
STL	4.7100¢	3.8771¢
TRF	4.7100¢	3.8771¢
POL	4.7100¢	3.8771¢

* Customers participating in the Percentage of Income Payment Plan (PIPP) program shall pay 5.4170¢, for all kWh per kWh, in lieu of the Rate RS Capacity and Energy Charges shown above.

Filed pursuant to Orders dated March 31, 2016, and May 24, 2017, in Case Nos.

14-1297-EL-SSO and 17-338-EL-RDR, before

The Public Utilities Commission of Ohio

Issued by: Steven E. Strah, President

Effective: June 1, 2017

RIDER GEN
Generation Service Rider

TIME-OF-DAY OPTION:

For customers with the appropriate qualifying time-of-day metering and who elect to be served under the Time-Of-Day Option, the charge by rate schedule will be as shown below, for all kWhs, per kWh:

<u>Capacity Charges</u>	<u>Summer</u>			<u>Winter</u>		
	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>
GS	1.4056¢	1.4056¢	1.4056¢	1.4056¢	1.4056¢	1.4056¢
GP	1.0344¢	1.0344¢	1.0344¢	1.0344¢	1.0344¢	1.0344¢
GSU	1.0630¢	1.0630¢	1.0630¢	1.0630¢	1.0630¢	1.0630¢
GT	0.7690¢	0.7690¢	0.7690¢	0.7690¢	0.7690¢	0.7690¢

<u>Energy Charges</u>	<u>Summer</u>			<u>Winter</u>		
	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>
GS	8.2905¢	5.2903¢	3.1557¢	4.5568¢	5.2097¢	2.9361¢
GP	8.0033¢	5.1070¢	3.0464¢	4.3990¢	5.0293¢	2.8345¢
GSU	7.7787¢	4.9636¢	2.9609¢	4.2756¢	4.8882¢	2.7550¢
GT	7.7709¢	4.9587¢	2.9579¢	4.2713¢	4.8833¢	2.7522¢

Midday-peak time shall be noon to 6 p.m. EST, Monday through Friday, excluding holidays.

Shoulder-peak time shall be 6 a.m. to noon and 6 p.m. to 10 p.m. EST, Monday through Friday, excluding holidays.

Holidays are defined as New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Off-Peak shall be all other hours.

A customer may terminate its participation in this time-of-day option at any time effective with the next scheduled meter reading. A qualifying customer may return to the time-of-day option at any time after a hiatus from the time-of-day option of at least one (1) year.

METERING:

The customer must arrange for time-of-day metering consistent with the Company's Miscellaneous Charges, Tariff Sheet 75.

RIDER GEN
Generation Service Rider

APPLICABILITY:

For customers taking the Standard Service Offer electric generation service ("SSO Generation Service") from the Company, the following Standard Service Offer Generation Charges (SSOGC) by rate schedule, will apply, effective for service rendered beginning June 1, 2017, for all kWhs per kWh, unless otherwise noted. For billing purposes, the winter rates shall be applicable during each winter billing period as defined in the Electric Service Regulations.

Capacity costs will be developed based on the results from annual PJM capacity auctions (including incremental auctions) and allocated to each Company and tariff schedule based on the average of coincident peaks, including distribution losses, for the months of June through September of the year prior to the applicable PJM delivery year. The calculated wholesale capacity costs are used to develop capacity charges.

These calculated wholesale capacity costs will be converted to an energy basis and will then be subtracted from the SSO competitive bid process ("CBP") results to develop the non-capacity related energy charges.

RATE:

<u>Capacity Charges</u>	<u>Summer</u>	<u>Winter</u>
RS*	1.7161¢	1.7161¢
GS	1.4116¢	1.4116¢
GP	1.2084¢	1.2084¢
GSU	0.8028¢	0.8028¢
GT	0.8840¢	0.8840¢
STL	0.0000¢	0.0000¢
TRF	0.8668¢	0.8668¢
POL	0.0000¢	0.0000¢
<u>Energy Charges</u>	<u>Summer</u>	<u>Winter</u>
RS*	4.7100¢	3.8771¢
GS	4.7100¢	3.8771¢
GP	4.5468¢	3.7429¢
GSU	4.4192¢	3.6379¢
GT	4.4148¢	3.6342¢
STL	4.7100¢	3.8771¢
TRF	4.7100¢	3.8771¢
POL	4.7100¢	3.8771¢

* Customers participating in the Percentage of Income Payment Plan (PIPP) program shall pay 5.4170¢, for all kWh per kWh, in lieu of the Rate RS Capacity and Energy Charges shown above.

RIDER GEN
Generation Service Rider

TIME-OF-DAY OPTION:

For customers with the appropriate qualifying time-of-day metering and who elect to be served under the Time-Of-Day Option, the charge by rate schedule will be as shown below, for all kWhs, per kWh:

<u>Capacity Charges</u>	<u>Summer</u>			<u>Winter</u>		
	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>
GS	1.4116¢	1.4116¢	1.4116¢	1.4116¢	1.4116¢	1.4116¢
GP	1.2084¢	1.2084¢	1.2084¢	1.2084¢	1.2084¢	1.2084¢
GSU	0.8028¢	0.8028¢	0.8028¢	0.8028¢	0.8028¢	0.8028¢
GT	0.8840¢	0.8840¢	0.8840¢	0.8840¢	0.8840¢	0.8840¢

<u>Energy Charges</u>	<u>Summer</u>			<u>Winter</u>		
	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>	<u>Midday Peak</u>	<u>Shoulder Peak</u>	<u>Off-Peak</u>
GS	8.2905¢	5.2903¢	3.1557¢	4.5568¢	5.2097¢	2.9361¢
GP	8.0033¢	5.1070¢	3.0464¢	4.3990¢	5.0293¢	2.8345¢
GSU	7.7787¢	4.9636¢	2.9609¢	4.2756¢	4.8882¢	2.7550¢
GT	7.7709¢	4.9587¢	2.9579¢	4.2713¢	4.8833¢	2.7522¢

Midday-peak time shall be noon to 6 p.m. EST, Monday through Friday, excluding holidays.

Shoulder-peak time shall be 6 a.m. to noon and 6 p.m. to 10 p.m. EST, Monday through Friday, excluding holidays.

Holidays are defined as New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. Off-Peak shall be all other hours.

A customer may terminate its participation in this time-of-day option at any time effective with the next scheduled meter reading. A qualifying customer may return to the time-of-day option at any time after a hiatus from the time-of-day option of at least one (1) year.

METERING:

The customer must arrange for time-of-day metering consistent with the Company's Miscellaneous Charges, Tariff Sheet 75.

THE DAYTON POWER AND LIGHT COMPANY
MacGregor Park
1065 Woodman Drive
Dayton, Ohio 45432

Seventeenth Revised Sheet No. G10
Cancels
Sixteenth Revised Sheet No. G10
Page 1 of 3

P.U.C.O. No. 17
ELECTRIC GENERATION SERVICE
STANDARD OFFER RATE (SOR)

DESCRIPTION OF SERVICE:

This Tariff Sheet provides the Customer with Generation Service from the Company that will be metered and billed on an energy-only basis.

APPLICABLE:

This rate will be assessed on a service-rendered basis beginning November 1, 2017.

REQUIRED SERVICES:

Customers receiving Generation Service under this Tariff Sheet must also take service under:

Distribution Tariff Sheets No. D17 to D25, based on applicability.
Transmission Cost Recovery Rider – Non-bypassable Sheet No. T8.

CHARGES: Energy Charge

The following \$/kWh charges will be assessed on a bypassable basis:

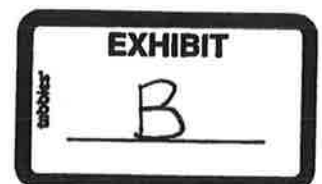
Residential	<u>Non-PIPP</u>	<u>PIPP</u>
0-750 kWh	\$0.0544632	\$0.0543131
Over 750 kWh	\$0.0488366	\$0.0487025
Residential Heating Non-PIPP	<u>Non-PIPP</u>	<u>PIPP</u>
0-750 kWh	\$0.0544632	\$0.0543131
0-750 kWh (S)	\$0.0488366	\$0.0487025
0-750 kWh (W)	\$0.0362623	\$0.0361638
Secondary		
0-1,500 kWh	\$0.0717102	
1,501-125,000 kWh	\$0.0452390	
Over 125,000 kWh	\$0.0422503	
Primary	\$0.0509957	
Primary-Substation	\$0.0504914	
High Voltage	\$0.0504914	

Filed pursuant to the Opinion and Order in Case No. 16-395-EL-SSO dated October 20, 2017 of the Public Utilities Commission of Ohio.

Issued October 31, 2017

Effective November 1, 2017

Issued by
THOMAS A. RAGA, President and Chief Executive Officer



THE DAYTON POWER AND LIGHT COMPANY
MacGregor Park
1065 Woodman Drive
Dayton, Ohio 45432

Seventeenth Revised Sheet No. G10
Cancels
Sixteenth Revised Sheet No. G10
Page 2 of 3

P.U.C.O. No. 17
ELECTRIC GENERATION SERVICE
STANDARD OFFER RATE (SOR)

School		\$0.0522750	
Street Lighting		\$0.0522750	
Private Outdoor Lighting			
Fixture Charge:	<u>kWh</u>	<u>Non-PIPP</u>	<u>/lamp</u> <u>PIPP</u>
9,500 Lumens High Pressure Sodium	39	\$2.0387261	\$2.0331179
28,000 Lumens High Pressure Sodium	96	\$5.0184026	\$5.0045978

THE FOLLOWING FIXTURES ARE NOT AVAILABLE FOR NEW INSTALLATIONS:

Fixture Charge:	<u>kWh</u>	<u>Non-PIPP</u>	<u>/lamp</u> <u>PIPP</u>
7,000 Lumens (Nominal) Mercury	75	\$3.9206271	\$3.9098421
21,000 Lumens (Nominal) Mercury	154	\$8.0503542	\$8.0282090
2,500 Lumens (Nominal) Incandescent	64	\$3.3456018	\$3.3363986
7,000 Lumens (Nominal) Fluorescent	66	\$3.4501518	\$3.4406610
4,000 Lumens (Nominal) Post Top Mercury	43	\$2.2478262	\$2.2416428

The Fixture Charge shall include a lamp with luminaire, controlled automatically, and where needed an upsweep arm not over six (6) feet in length, on an existing pole, where service is supplied from existing secondary facilities of the Company. The four thousand (4,000) Lumens Post Top Mercury Fixture Charge for underground service only, shall include a post for twelve (12) foot mounting height.

The Summer (S) period shall be the months of June, July, August, September, and October.

The Winter (W) period shall be the months of January, February, March, April, May, November, and December.

ALTERNATIVE ENERGY COMPONENT:

Embedded in the SOR charges is the alternative energy component charge of \$0.0000838 per kWh.

Filed pursuant to the Opinion and Order in Case No. 16-395-EL-SSO dated October 20, 2017 of the Public Utilities Commission of Ohio.

Issued October 31, 2017

Effective November 1, 2017

Issued by
THOMAS A. RAGA, President and Chief Executive Officer

THE DAYTON POWER AND LIGHT COMPANY
MacGregor Park
1065 Woodman Drive
Dayton, Ohio 45432

Seventeenth Revised Sheet No. G10
Cancels
Sixteenth Revised Sheet No. G10
Page 3 of 3

P.U.C.O. No. 17
ELECTRIC GENERATION SERVICE
STANDARD OFFER RATE (SOR)

PIPP:

“PIPP” or “PIPP Plus” or “Percentage of income payment plan plus” means the income-based payment plan for low-income, residential customers administered in accordance with Ohio Revised Code Section 4928.53 and Ohio Administrative Code Section 122:5-3 allowing eligible customers to pay a percentage of household income in lieu of the actual bill for residential service.

TERM:

The charges contained in the Tariff will be updated and reconciled on an annual basis. DP&L will file with the Public Utilities Commission of Ohio on or before April 15 of each year for rates effective June 1 through May 31 of the subsequent year, unless otherwise ordered by the Commission.

There is no minimum required term under this Tariff Sheet; however, if the Customer selects an Alternate Generation Supplier, applicable Switching Fees will apply as defined in Tariff Sheet No. D34.

DEFAULT SERVICE:

Customers who do not select an Alternate Generation Supplier, opt-out of a government aggregation program or are dropped by their Alternate Generation Supplier due to a violation of coordination obligations will be served under this Tariff Sheet.

RULES AND REGULATIONS:

All Generation Service of the Company is rendered under and subject to the Rules and Regulations contained within this Schedule and any terms and conditions set forth in any Service Agreement between the Company and the Customer.

Filed pursuant to the Opinion and Order in Case No. 16-395-EL-SSO dated October 20, 2017 of the Public Utilities Commission of Ohio.

Issued October 31, 2017

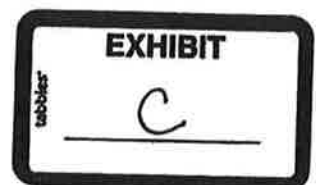
Effective November 1, 2017

Issued by
THOMAS A. RAGA, President and Chief Executive Officer

MISCELLANEOUS CHARGES

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Filed pursuant to Order dated July 2, 2012, in Case No.12-1312-EL-ATA, before

The Public Utilities Commission of Ohio

Issued by: Charles E. Jones, Jr., President

Effective: July 5, 2012

MISCELLANEOUS CHARGES

1. SAME DAY CONNECTION CHARGE

If the customer requests service for the same day on which the request has been made and the service is presently not connected, the Company will charge the customer a fee of \$35.00. (Electric Service Regulations, Sheet 4, Section II, Paragraph E).

2. FIELD COLLECTION CHARGE

When a customer has a delinquent bill, the Company may make a field collection visit to attempt to collect the delinquent amount. A Field Collection charge of \$12.00 shall be applicable once per billing cycle for all collection visits made during a billing cycle by the Company to the customer's premises. (Electric Service Regulations, Sheet 4, Section XI, Paragraph B).

3. RECONNECTION CHARGE

When service has been disconnected for failure to comply with the terms and conditions of the Rate Schedules or Electric Service Regulations of the Company or has been disconnected at the customer's request, (other than for seasonal or temporary discontinuance of service), the following charges for reconnection of service:

Before 12:30 p.m. Monday through Friday, subject to a different time prescribed by Chapter 4901:1-18 of the Ohio Administrative Code;

Same day reconnection \$35.00

After 12:30 p.m. Monday through Friday, subject to a different time prescribed by Chapter 4901:1-18 of the Ohio Administrative Code, but before 3:30 p.m., and the customer requests same day reconnection of service;

Same day reconnection \$60.00

After 12:30 p.m. Monday through Friday, subject to a different time prescribed by Chapter 4901:1-18 of the Ohio Administrative Code;

Next day reconnection \$35.00

NOTE: The customer must contact the Company and provide proof of payment in order to have service reconnected.

Customer requests for reconnection after normal business hours or on Saturday, Sunday, or Company holidays shall be treated as being received on the following business day. When service has been disconnected at the customer's request because of seasonal occupancy of the premises or for a temporary discontinuance of service where the same customer has moved in and out of the same premise within a 12 month period without another party signing for service during that 12 month period, the Company will charge the customer a reconnection fee of \$15.00. (Electric Service Regulations, Sheet 4, Section II, Paragraph F).

MISCELLANEOUS CHARGES

4. RETURNED PAYMENT CHARGE

The Company shall charge the customer \$15.00 for processing payments that result from dishonored payment transactions. (Electric Service Regulations, Sheet 4, Section VI, Paragraph H).

5. UNAUTHORIZED USE INVESTIGATION CHARGE

In the event the customer or consumer commits or is the beneficiary of any fraudulent practice in obtaining electric service from the Company, or falsifies any service application, the Company will assess the customer a minimum fee of \$125.00 for the Company's investigation of the unauthorized use of service. The charge will also be assessed where any connection or device is found on the service entrance equipment or premises of the customer or consumer which prevents the meter from accurately registering total consumption used or to be used, or where the service entrance equipment or other property used to supply electric service has been altered to avoid accurate metering or has been damaged.

The Company will also assess the customer an estimated or actual bill representing the electric service fraudulently or falsely obtained and the actual costs to repair or replace any damaged or missing service entrance equipment or other property used to supply electric service.

6. METER TEST CHARGE

The Company will test a meter at the request of the customer. The first test within a 36 month period shall be at no charge to the customer. The Company shall charge \$55.00 for any subsequent tests performed at the customer's request, however, no payment will be required of the customer if the meter is found to be registering incorrectly in accordance with the tolerances specified in Chapter 4901:1-10 of the Ohio Administrative Code. (Electric Service Regulations, Sheet 4, Section IX, Paragraph C).

7. DISCONNECTION/RECONNECTION FOR CUSTOMER WORK CHARGE

When a customer requests the Company to disconnect and/or reconnect there will be a charge to the customer for the Company's actual cost to perform the disconnect / reconnect. This charge will not apply to residential accounts unless such work, at the request of the customer, requires work to be performed by the Company outside normal working hours.

8. TEMPORARY SERVICE DROP CONNECTION CHARGE

When requested by a customer, the Company will provide a Temporary Service Drop Connection for a charge to the customer of \$200. A Temporary Service Drop Connection shall mean the installation of single-phase service up to 200 amps from existing secondary conductors. (Electric Service Regulations, Sheet 4, Section VII, Paragraph A.4).

MISCELLANEOUS CHARGES

9. METER SERVICE CHARGES

Charges specified in this provision apply to customers that request the Company to install metering and to provide certain meter related services, both of which are necessary to bill the customer's account, and that otherwise are not provided by the Company. These charges are in addition to any charges included in the applicable rate schedule and must be paid by the customer prior to the Company installing the requested metering. The customer is responsible for providing communication links to the interval meter per the Company's specifications. If such a communication link is not installed by the first regularly scheduled interval meter read date, the Company may install a communication link and charge the customer on a monthly basis in accordance with charges specified in this provision.

Replace Meter with Interval Meter and Modem	\$550.00
Replace Meter with Time-of-Day Meter	\$105.00

Company installed communication link charge is \$50.00 per month.

If the Company is required to visit the meter site due to the inability to gain access to the meter location or the necessary communication link has not been installed, or the communication link is not working properly, or the Company elects to make a site visit to read the meter, a charge shall be applicable per site visit of \$50.00.

OHIO POWER COMPANY

2nd Revised Sheet No. 467-1
Cancels 1st Revised Sheet No. 467-1

P.U.C.O. NO. 20

GENERATION ENERGY RIDER

Effective June 1, 2017, all customer bills subject to the provisions of this Rider, including any bills rendered under special contract, shall be adjusted by the Generation Energy charge as follows:

Schedule	Summer (Jun-Sep) ¢/KWH	Winter (Oct-May) ¢/KWH
Residential RS, RR, RR-1, RS-ES, RS-TOD, RLM, RS-TOD2, CPP, RTP, and RDMS	4.04800	4.04800
PIPP Residential RS, RR, RR-1, RS-ES, RS-TOD, RLM, , , , and RDMS	3.99500	3.99500
Non Demand Metered GS-1, GS-1 TOD GS-2 Recreational Lighting, GS-TOD, GS-2-TOD, and GS-2-ES GS-3-ES EHS SS	4.04800	4.04800
Demand Metered Secondary GS-2 GS-3 EHG	4.04800	4.04800
Demand Metered Primary GS-2 GS-3 GS-4	3.90700	3.90700
Demand Metered Subtransmission/Transmission GS-2 GS-3 GS-4	3.82900	3.82900
Lighting AL SL	4.04800	4.04800

Filed pursuant to Order dated May 24, 2017 in Case No. 17-1160-EL-RDR

Issued: May 25, 2017

Issued by
Julia Sloat, President
AEP Ohio

Effective: June 1, 2017



P.U.C.O. NO. 20

GENERATION CAPACITY RIDER

Effective June 1, 2017, all customer bills subject to the provisions of this Rider, including any bills rendered under special contract, shall be adjusted by the Generation Capacity charge as follows:

Columbus Southern Power Rate Zone

Rate		c/kWh or \$/Month
RR, RR-1		1.48400
RLM	<u>Winter Rate</u> First 750 KWH Next 150 KWH All Other KWH <u>Summer Rate</u> First 750 KWH Next 150 KWH All Other KWH	2.05850 1.11399 1.30282 2.05850 1.95546 1.82968
RS-ES, RS-TOD	On Peak KWH Off-Peak KWH	2.56811 0.88104
RS-TOD2	Low Cost Hours High Cost Hours	0.32669 14.87116
Schedule CPP	<u>Winter Rate</u> First 800 KWH Over 800 KWH Critical Peak Hours <u>Summer Rate</u> Low Cost Hours Medium Cost Hours High Cost Hours Critical Peak Hours	1.35437 0.00000 32.75087 0.32751 1.02687 2.09908 32.75087
RS-RTP	Per Month	18.05
GS-1, GS-1 TOD		1.37800
GS-2-TOD, GS-2 LMTOD	On-Peak Hours Off-Peak Hours	4.12434 0.01409
Demand Metered Secondary GS-2 GS-3		1.31700
Demand Metered Primary GS-2 GS-3		1.08400
Demand Metered Subtransmission/Transmission GS-4		0.50900

Seasonal Periods

The winter period shall be the billing months of October through May and the summer period shall be the billing months of June through September.

Filed pursuant to Order dated May 24, 2017 in Case No. 17-1160-EL-RDR

Issued: May 25, 2017

Effective: June 1, 2017

Issued by
Julia Sloat, President
AEP Ohio

P.U.C.O. NO. 20

GENERATION CAPACITY RIDER

Effective June 1, 2017, all customer bills subject to the provisions of this Rider, including any bills rendered under special contract, shall be adjusted by the Generation Capacity charge as follows:

Ohio Power Rate Zone

Rate		c/kWh or \$/Month
RS		1.48400
RDMS	KWH > 400 times billing demand	1.70449
	First 500 on-peak KWH	2.12968
	All Over 500 on-peak KWH	1.58601
	All additional KWH	0.48281
RS-ES, RS-TOD	On Peak KWH	3.07310
	Off-Peak KWH	0.84659
GS-1, EHS, SS, GS-2 Recreational Lighting		1.37800
GS-1 ES	On-Peak Hours	2.81870
	Off-Peak Hours	0.61531
GS-TOD, GS-2-ES	On-Peak Hours	2.25775
	Off-Peak Hours	0.77771
Demand Metered Secondary GS-2 GS-3 EHG		1.31700
Demand Metered Primary GS-2 GS-3 GS-4		1.08400
Demand Metered Subtransmission/Transmission GS-2 GS-3 GS-4		0.50900

Filed pursuant to Order dated May 24, 2017 in Case No. 17-1160-EL-RDR

Issued: May 25, 2017

Issued by
Julia Sloat, President
AEP Ohio

Effective: June 1, 2017

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/8/2017 4:39:34 PM

in

Case No(s). 12-2050-EL-ORD

Summary: Application for Rehearing and Memorandum in Support by The Environmental Law & Policy Center, Ohio Environmental Council, Environmental Defense Fund, Natural Resources Defense Council, and Vote Solar electronically filed by Ms. Miranda R Leppla on behalf of Environmental Law & Policy Center and Ohio Environmental Council and Environmental Defense Fund and Natural Resources Defense Council and Vote Solar

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

4/29/2019 1:56:29 PM

in

Case No(s). 12-2050-EL-ORD

Summary: Supreme Court Appeal Notice of Appeal of the Ohio Environmental Council, Environmental Law & Policy Center, and Vote Solar electronically filed by Mr. Trent A Dougherty on behalf of Ohio Environmental Council and Environmental Law & Policy Center and Vote Solar