

**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

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

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**REPLY COMMENTS  
BY  
THE OFFICE OF THE OHIO CONSUMERS’ COUNSEL**

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**I. INTRODUCTION**

The Office of the Ohio Consumers’ Counsel (“OCC”) files these Reply Comments on net metering rules. Under these rules consumers can install renewable energy generation on their property and are connected to a public-utility power grid, mainly to reduce the electricity needed from the utility. The net metering rules also allow customers who produce more electricity than they need to sell back to the utility the surplus electricity generated. Net metering is critical to consumer distributed generation economics. Renewable distributed generation facilitated by an air net metering regime will contributing to meeting Ohio’s renewable energy requirements and developing an advanced energy industry in the state. Net metering is also an important tenet of Ohio’s State Energy Policy.<sup>1</sup>

The Public Utilities Commission of Ohio (“PUCO” or “the Commission”) invited interested persons to file comments and reply comments concerning proposed changes to the net metering rules contained in Ohio Adm. Code 4901:1-10-28.<sup>2</sup>

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<sup>1</sup> See R.C. 4928.02(k), “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;”

<sup>2</sup> Case No. 12-2050-EL-ORD, Entry at 10 (November 18, 2015).

Initial comments were filed by several parties including the OCC on December 18, 2015. Representing the interests of all Ohio residential electric consumers in the state, the OCC generally supports the proposed net metering rules and welcomes the opportunity to file these reply comments. The PUCO should adopt the recommendations in these reply comments, in order to protect consumers.

## **II. SPECIFIC REPLY COMMENTS**

### **A. The 120 percent of customer consumption net metering sizing provision of the proposed rules strikes a fair balance for customers and should be maintained. No additional net metering energy or capacity limits should be imposed.**

The draft rule (specifically, 4901:1-10-28(B)(7)(b)) proposes to establish a limit on the size of a net metering generator to 120 percent of a customer's three-year average consumption at a particular installation. This provision provides parameters to the net metering language in the R.C. 4928.01(31)(d) that "[i]s intended primarily to offset part or all of the customer-generator's requirements for electricity."<sup>3</sup> The 120 percent provision generated significant interest in the previous round of comments in this proceeding, which has continued into the current round.

Specifically, AEP Ohio, Dayton Power and Light ("DP&L"), and the First Energy Companies ("FirstEnergy") all continue to seek revisions to reduce the 120 percent requirement. These revisions also allow less flexibility for net metering customers.<sup>4</sup> Duke Energy Ohio ("Duke") proposes both an energy and capacity limit. For residential customers Duke proposes a 10 kW limit.<sup>5</sup> The 10 kW limit is capricious, and has no

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<sup>3</sup> R.C. 4928.01(31)(d).

<sup>4</sup> Case No. 12-2050-EL-ORD, DP&L Comments at 3-5, FirstEnergy at 6-8, AEP Ohio at 13-17 (December 18, 2015).

<sup>5</sup> Case No. 12-2050-EL-ORD, Duke Energy Ohio Comments at 2-3 (December 18, 2015).

basis. Additionally it is not tied to a net metering customer's consumption level provision of the law (R.C. 4928.01(31)(d)), and thus, is inconsistent with the law.

Other commenters (the Environmental Law and Policy Center, Ohio Environmental Council, Natural Resources Defense Council, Environmental Defense Fund and Vote Solar [collectively, "Environmental Advocates"]) argue that the PUCO should not establish an absolute limit on the size of a net metering system.<sup>6</sup> The Environmental Advocates point out that Ohio law allows customers to receive net metering service based on the intent to offset their own electricity requirements, and "codifying a bright-line limit on the size of a system does not allow for unique circumstances where the customer may have such intent but the system falls outside the bounds of the proposed quantitative limit."<sup>7</sup> OCC voiced similar concerns in earlier comments.<sup>8</sup>

At this time, OCC supports the 120 percent rule as a way of adding more clarity for net metering customers on the size of permitted generation equipment. The requirement should also serve to lessen future individual customer and utility litigation. For residential customers, most applications will involve solar photovoltaic systems.<sup>9</sup> The 120 percent proposed rule should not disrupt the development of this valuable resource. The solar customer is bringing a new daytime generation resource delivered at the local distribution level, a more clean resource than typical generation units, and a resource that avoids fuel cost risk and fuel supply risk.

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<sup>6</sup> Case No. 12-2050-EL-ORD, Environmental Advocates Comments at 2 (December 18, 2015).

<sup>7</sup> Id. at 2.

<sup>8</sup> See OCC Comments in this docket (12-2050-EL-ORD) on January 7, 2013 at 31-34.

<sup>9</sup> Solar photovoltaic panels convert sunlight into electricity in a chemical process and are a prevalent form of distributive generation that can be placed on customer rooftops or on their land.

All of these attributes add value to the electric system and should not be discouraged.

The 120 percent rule will likely cover solar customers' needs, and thus will not interfere with such development.

**B. To assist customers who are considering net metering, the Ohio utilities should provide an estimated premise consumption level for net metering purposes.**

AEP Ohio, FirstEnergy, and DP&L<sup>10</sup> all balk at having to provide new customers estimated consumption (as detailed in 4901:1-10-28(B)(7)(a)).<sup>11</sup> These utilities instead propose that the consumption estimate be the responsibility of the new customer.

This position would make sense if most of the prospective net metering customers were energy experts and proficient at running Department of Energy-2 energy simulation models<sup>12</sup> on their home computers. But that is not the case. Utilities are better positioned to provide consumption estimates to the potential net metering customer. That is, utilities have the previous customers' consumption data and/or analytical tools to provide a reasonable estimate. In addition, Ohio utilities (and their consultants) have been for years estimating consumer consumption in developing and modeling their respective energy efficiency programs. Some have also run information programs that model average customer usage based on similar home vintage and square footage.

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<sup>10</sup> Case No. 12-2050-EL-ORD DP&L Comments at 2-3 (December 18, 2015), objects to being responsible to calculate a customer's consumption for net metering customers, period. The proposed FirstEnergy language supplanting the previous 36 months language in the proposed rules is more stringent and less robust than the existing language. FirstEnergy at 5 (December 18, 2015).

<sup>11</sup> Case No. 12-2050-EL-ORD , DP&L Comments at 2-3, AEP at 10-11, FirstEnergy at 4-5 (December 18, 2015).

<sup>12</sup> DOE-2 is a widely used and sophisticated building **energy** analysis software program that can predict the energy use and cost for all types of buildings. See <http://www.doe2.com/>.

It makes sense for Ohio utilities to be responsible for providing a premise consumption estimate. The utilities' proposed modifications to this section should be rejected.

**C. The payment to a net metering customer who exceeds their monthly electricity usage should be the full utility generation cost [utility generation SSO (energy and capacity) plus any non-bypassable generation riders].**

AEP Ohio and FirstEnergy continue to argue that under the (4901:1-10-28(B)(9)(b)) payments for net metering customer excess generation, the Standard Service Offer ("SSO") price, is too generous and should be reduced.<sup>13</sup> To this end, AEP Ohio and FirstEnergy oppose the PUCO Staff's proposed revision to require electric utilities to credit excessive generation by customer-generators at the utilities' SSO rate; to the extent this would require electric utilities to pay net metering customers for the capacity component of the SSO rate. AEP Ohio and FirstEnergy comment that the excess generation credit should be set at the utility's energy rate.<sup>14</sup> AEP Ohio's main concern with the Proposed Net Metering Rules appears to be the proposed rate at which utilities must issue monetary credits for excess generation of electricity. AEP maintains that requiring a utility to provide an excess generation credit "at the utility's standard service offer rate" is improper.<sup>15</sup>

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<sup>13</sup> See Case No. 12-2050-EL-ORD, May 28, 2014 Second Entry on Rehearing at 15.

<sup>14</sup> Case No. 12-2050-EL-ORD, FirstEnergy Comments at 9 (December 18, 2015).

<sup>15</sup> Case No. 12-2050-EL-ORD, AEP Ohio Comments at 3-9 (December 18, 2015). AEP Ohio also mentions that the SSO rate can contain non-generation components.

The Environmental Advocates comment that the monthly excess generation credit should be a kWh credit that rolls over month to month indefinitely or, alternatively, until the end of the year. A true kWh credit, as opposed to a monetary credit they argue, is consistent with the statutory definition of “net metering.”<sup>16</sup>

OCC submits that limiting the excess generation payment to the energy charge portion of SSO charge would short change the net metering customers. This is simply wrong. Solar and wind resources are currently eligible for a discounted capacity credit at PJM.<sup>17</sup> With residential battery technology improving and becoming more economical, solar and wind systems combined with battery storage could in a short time provide a very reliable form of capacity.<sup>18</sup> Furthermore, while the full SSO generation payment appears appropriate for a restructured state like Ohio, it does not comprise the full generation payment in instances where there are non-bypassable generation charges on customer tariffs.<sup>19</sup> Therefore, the payment to a net metering customer who produces excess monthly electricity should be the full utility generation SSO (capacity and energy) plus any non-bypassable generation riders.

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<sup>16</sup> Case No. 12-2050-EL-ORD, Environmental Advocates Comments at 1-2 (December 18, 2015).

<sup>17</sup> See March 31, 2014 PJM Renewable Integration Study Task 3 A Part F Capacity Valuation at <http://www.pjm.com/~media/committees-groups/subcommittees/irs/postings/pjm-pris-task-3a-part-f-capacity-valuation.ashx>.

<sup>18</sup> In 2014, about one out of five household PV systems in Germany was sold with a battery pack, and that is projected to be one in three in 2015. Deign, J. (2015). German Energy Storage: Not for the Fainthearted. *Greentech Media*, March 13, 2015. Available at <http://www.greentechmedia.com/articles/read/german-energy-storage-not-for-the-faint-hearted>. Also, net metering customers with smart inverters can also provide ancillary services such as voltage control. See “Inverters to provide grid support (DG and Storage),” Tom Key and Brian Seal, EPRI December 3, 2012. [http://www.conference-on-integration-2012.com/fileadmin/user\\_upload\\_COI-2012/WS/6-\\_Tom\\_Key\\_EPRI\\_Inverter\\_Communication\\_and\\_DERMS.pdf](http://www.conference-on-integration-2012.com/fileadmin/user_upload_COI-2012/WS/6-_Tom_Key_EPRI_Inverter_Communication_and_DERMS.pdf)

<sup>19</sup> For example, see the proposed Power Purchase Agreement riders in both the AEP Ohio and FirstEnergy settlements in Cases 14-1693-EL-RDR and 14-1297-EL-SSO.

**D. The provision concerning the losing of net metering customer credit if not used within 36 months should be clarified to mean the credits to customers are not all lost. The PUCO staff should clarify that any net metering customer credit for excess electricity production operates on a rolling monthly basis.**

Duke comments that the provision in 4901:1-10-28(B)(9) that a monetary credit may be lost if the customer generator does not use the credit within thirty-six months needs clarification.<sup>20</sup> Duke asks that this language should be clarified to explain whether the credits are to roll off on a rolling basis, or all credits within the immediate past thirty-six months are lost.<sup>21</sup> OCC's understanding is the former, and the language should be clarified by the PUCO to state that any net metering customer credit for excess electricity production operates on a rolling monthly basis.

**E. No additional customer liability should be imposed on net metering customers.**

DP&L suggests the Commission clarify that section 4901:1-10-28(B)(10) does not prohibit an Electric Distribution Utility from filing liability claims against a customer generator if that customer causes physical interruption of service to other customers served from that same distribution line.<sup>22</sup> Issues related to net metering system safety and reliability concerns are contained in the utility distribution system interconnection agreement with a net metering customer. This agreement governs the technical specifications that must be met by a customer generator based on IEEE's 1547 (and UL's 1741) standard.<sup>23</sup> The interconnection agreement also contains detailed distribution system protection and liability language. DP&L's concern falls within the purview of

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<sup>20</sup> Case No. 12-2050-EL-ORD, Duke Comments at 4-5 (December 18, 2015).

<sup>21</sup> Id.

<sup>22</sup> Case No. 12-2050-EL-ORD, DP&L at 7 (December 18, 2015).

<sup>23</sup> Chapter 4901:1-22 Interconnection Services in the Ohio Administrative Code. IEEE stands for Institute of Electrical and Electronics Engineers and UL stands for Underwriters Laboratories.

Ohio's interconnection rules and therefore, no new liability conditions should be imposed on net metering customers in this rulemaking. DP&L's comment should be rejected.

**F. Net metering customers who request a smart meter should not be charged any additional cost.**

Interstate Gas Supply, Inc. ("IGS") states that net metered customers that install advanced interval meters should be exempt from the cost of future advanced meter riders.<sup>24</sup> While this is a good idea, not charging the net metering customer any additional cost is preferable because:

- Customers in the AEP Ohio, Duke, and FirstEnergy service territories have been paying for smart meter riders whether they have a smart meter installed. Essentially the costs of smart grid have been socialized in Ohio. Furthermore, the American Recovery and Reinvestment Act of 2009 federal stimulus that helped fund half the costs of these three utilities' initial smart grid deployments were paid for by all of Ohio's taxpayers.
- As of July 2014 over 50 million smart meters had been installed in the U.S., representing 43 percent of all U.S. homes.<sup>25</sup> Over one million of these meters have been installed in the State of Ohio.
- Expanded smart meter deployments are proposed in the recent AEP Ohio and FirstEnergy settlements.<sup>26</sup>

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<sup>24</sup> Case No. 12-2050-EL-ORD, IGS Comments at 4-5 (December 18, 2015).

<sup>25</sup> Institute for Electric Innovation, Utility-Scale Smart Meter Deployments - September 2014, at 1.

<sup>26</sup> See the proposed Power Purchase Agreement riders in both the AEP Ohio and FirstEnergy settlements in Cases 14-1693-EL-RDR and 14-1297-EL-SSO.



Because all customers have paid for Ohio's smart grid deployment, and will continue to pay as more smart meters are deployed, no net metering customer should be charged separately for a smart meter.<sup>27</sup> Otherwise the Utilities could be collecting twice for the same service.

Finally, a smart meter will enable the net-metering customer to take service with a time-differentiated rate. The benefit of having a net metering customer on a smart meter and a time-differentiated generation rate is that such a rate will more approximate the value of their production (lower remuneration for generation predominant during off-peak periods and higher payments for the on-peak production of solar PV) and therefore provides a fairer compensation mechanism.

**G. OCC supports the opening of an aggregate and virtual net metering<sup>28</sup> docket to protect customers.**

Several commenters requested that the PUCO open a separate docket concerning Aggregate and Virtual Net Metering.<sup>29</sup> These commenters point out that in its January 2014 Order, the Commission indicated that, although it had solicited comments on whether aggregate net metering and virtual net metering could be implemented under Ohio law, it would defer the issue to a separate docket. OCC supports the

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<sup>27</sup> The Commission Order in DP&L Case No. 12-246-EL-SSO stated that the Company should file a smart grid application. September 4, 2013 Opinion and Order in Case No. 12-426-EL-SSO at 28. "Additionally, for the Commission to authorize the SSR-E, DP&L must also file an application to modernize its electric distribution infrastructure through implementation of a smart grid plan and advanced metering infrastructure (AMI)." Therefore, there is a likelihood that DP&L customers will have access to smart meters in the future.

<sup>28</sup> Aggregate net metering is when a customer-generator with multiple meters in different locations can aggregate their total usage for net metering purposes. An example of virtual net metering is when a shopping mall owner with multiple tenants, each with their own meter, or people who rent in a multi-tenant complex are allowed to net meter. Expanding net metering—under headings of 'virtual' or 'aggregate' net metering or community solar—have been undertaken in several states to share benefits of clean energy production with a broader base.

<sup>29</sup> Case No. 12-2050-EL-ORD, IGS at 5-6, ELPC, OEC, NRDC, EDF and Vote Solar at 2 (December 18, 2015).

recommendation to open of an Aggregate and Virtual Net Metering Docket to promote more net metering in support of state energy policy cited earlier.

### **III. CONCLUSION**

OCC appreciates the opportunity to provide these reply comments regarding the proposed changes to the rules about electric service in Ohio Adm. Code Chapter 4901:1-10. The Commission's adoption of OCC's recommendations in these reply comments and OCC's initial comments will help to 1) ensure more reliable electric service being provided to residential consumers, 2) ensure that necessary consumer protections are defined to protect customer privacy as more advanced metering data becomes available, and 3) ensure that net metering is implemented in a fair and reasonable manner in Ohio.

Respectfully submitted,

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## **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the Comments have been served via electronic service upon the following parties of record this 8<sup>th</sup> day of January, 2016.

/s/ Kyle L. Kern

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