Citizens for Pennsylvania's Future
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August 28, 2014

John F. Mizner, Esq.
Chairman
Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17101

Re: ID Number 57-304
PUC Docket No. L-2014-2404361

Dear Chairman Mizner

The Pennsylvania Public Utility Commission (PUC) has recently proposed changes to the implementation of the Alternative Energy Portfolio Standards Act of 2004. After reviewing this proposal a coalition of interested stakeholders including Citizens for Pennsylvanias Future ("PennFuture"), the Clean Air Council, The Reinvestment Fund, the Mid-Atlantic Renewable Energy Association, the Sierra Club, and the Pennsylvania Solar Energy Industries Association, (hereinafter "Joint Commentators") oppose this proposal. As set forth in the attached documents, we find that many of the provisions exceed the PUC's statutory mandate and the legislative intent and will further serve to discourage adoption of renewable energy systems. This proposal also introduces confusing and un-workable standards that will cause particular difficulty for small businesses and individuals who seek to generate their own clean energy. We urge the Commission to join us in opposing this proposal.

Sincerely,

Robert Altenburg
Senior Energy Analyst,
Citizens for Pennsylvania's Future

encl: Joint Comments submitted to PUC
Joint Comments on PUC's Regulatory Analysis Form Submission

cc: Corinne R. Brandt, Regulatory Analyst (via email)
Scott R. Schalles, Regulatory Analyst (via email)
Fiona E. Wilmarth, Dir. Regulatory Review (via email)

Joint Comments
PUC's Regulatory Analysis Form Submission
ID Number 57-304

1 RAF Block 8: Lack of Stautory Authority

The PUC has provided specific statutory citations to justify its authority to enact the proposed regulation, however the proposal exceeds this authority.

The Legislature established the Alternative Energy Portfolio Standards Act[1] (the Act) with the intent of promoting the installation of renewable energy systems such as solar photovoltaic (PV) systems. In the Act, the Legislature included unambiguous standards for what size units qualify as "customer-generators".[2] It provides clear requirements for virtual net metering.[3] And, most importantly, the Act guarantees that such customer-generators "shall receive the *full retail value* for all energy produced".[4] As our attached comments demonstrate the PUC's proposal includes numerous changes that are inconsistent with these requirements.

The PUC justifies the proposed changes, in part, claiming they will "balance the benefits provided to developers, owners, of alternative energy systems, and net metering customer generators with the costs born by EDCs, EGSs, and electric utility ratepayers..."[5] While the desire to "balance the benefits" is understandable, the Act gives them the limited authority to "develop technical and net metering interconnection rules".[6] When it comes to broad matters of energy policy, their obligation is to carry out the "full intent" of the Legislature[7] and not to conduct independent balancing of the various interests.

2 RAF Block 10: Lack of Compelling Public Interest and Benefits

In passing the Act, the Legislature made a finding that there was a significant public interest in promoting renewable energy. Contrary to the intent of the Legislature, this proposal creates added restrictions and introduces confusion that could only limit the installation of solar PV systems and other renewable energy sources.

We understand the intent of the PUC is to prevent merchant generators from receiving net metering benefits reserved under the Act for customer-generators. We are sympathetic to that goal, but we are unaware of any actual case where the PUC or Electric Distribution Companies(EDCs) will likely be compelled to provide merchant generators with such

[1] 73 P.S. § 1648.1 *et seq.*
[2] § 1648.2
[3] *Id.*
[4] § 1648.5
[5] RAF Block 10
[6] 73 P.S. § 1648.5
[7] 66 Pa.C.S. § 501(a)

benefits under the existing rules. Lacking a demonstration of actual need, we do not agree that the PUC has documented compelling public interest supporting the proposed changes.

The PUC also suggests that this proposal will increase "regulatory certainty". While there is value in such certainty, we find the proposed rule creates more ambiguity than it resolves and to the extent that it does propose clear standards, the statements are often at odds with the statutory requirements.

3 RAF block 12: Comparison with other states

While the Joint Commentators do not dispute that other states have similar restrictions to the 110% limit the PUC proposed, the existence of restrictions in other states does not give the PUC authority to enact limitations on system size that are more restrictive than those established by the Legislature.

4 RAF Block 14: Lack of Public Input

We appreciate the fact that the PUC staff has been receptive to informal communications on this and many other issues, but we feel the interests of the regulated community and the public would be better served in this case by a more formal stakeholder process. The Act specifies that "The commission shall convene a stakeholder process to develop Statewide technical and net metering rules for customer-generators."[8] The Joint commentators, like the Legislature, believe that robust stakeholder input results in better policy decisions. Had such a process been held, many of the issues commentators are now raising could have been addressed before the proposal was issued.

5 RAF Block 17: Harm to Individuals and Small Businesses

The Joint Commentators support the proposed metering requirements described in block 17, but note that there are other impacts that should also be discussed.

The change in language to authorize new fees is of particular concern. While the Act requires customer-generators receive the *full retail value* for the power they generate, the PUC proposes adding broad new language stating they can approve fees that apply specifically to customer-generators and not to other customers. This provision may have a substantial impact on individuals and small businesses[9]. While even modest fees will discourage installation of alternative energy systems, the mere presence of this language is harmful. Should the proposed change encourage EDCs to seek PUC orders allowing them to charge such fees, individuals and small business could incur significant expenses intervening in cases to oppose those fees, even if they are not ultimately approved.

[8] § 1648.5

[9] Joint Comments, II.A.

While fees are a direct impact, there are also indirect impacts caused by arbitrary standards. For example, while the statute requires that customer-generators be permitted to engage in virtual net metering on properties within two miles of each other, the PUC proposes to add a additional requirement that all of those parcels must have an independent load. Under this proposal a business could purchase an adjacent lot to install solar panels that connect to its existing meter but an otherwise identical competing business could not purchase a vacant lot across the street without the expense of moving a portion of its operations to that lot to establish an existing load.[10] The financial impact of such arbitrary restrictions should be addressed.

The proposal may also force inefficient use of resources. Under the existing rules, a small farm may install a biodigester with the capacity to handle their entire manure load. Under the proposed rules, they could be forced to install a smaller unit and truck their excess waste for off-site disposal. Even though their primary business is agriculture, they could fall under the proposed definition of a "utility"[11] or be artificially limited by the proposed 110% cap if their system generates more electricity than they use.

6 RAF Block 18: Benefits do not Outweigh Harms

We disagree with the PUC's assertion that the proposed regulations "will reduce uncertainty for all stakeholders."

This is particularly obvious in the case of the proposed 110% cap as applied to residential customer generators. As we documented in our comments[12] there is little risk that a merchant generator will disguise itself as a residential customer-generator, so this will do little to forward the PUC's stated goals. This may create a substantial burden for the customer because many residential consumers will lack the financial resources or engineering skill to independently assess their situation and challenge denials from their EDCs. The PUC has stated that it intends the limit to be a flexible standard as opposed to "a hard kilowatt-hour cap on the customer-generator's system output",[13] but this very flexibility negates "the benefits of obtaining more certainty" on which the PUC relies to justify the proposal.

7 RAF Block 19: Underestimating Compliance Costs

The PUC maintains, without supporting documentation and without conducting a cost study, that added compliance costs will be offset by "avoided costs attributable to the increased regulatory certainty." For the prospective customer-generator, particularly individuals and small-businesses, there is little in this proposal that adds any certainty and

[10] Joint Comments, II.D.
[11] Joint Comments, II.B.
[12] Joint Comments, II.E. pp.9–10
[13] 44 Pa.B. 4182 (Proposal at B.1.)

many provisions that can be used by EDCs to deny customers their rights under the Act.

For example, a EDC could deny a family the ability to be a customer-generator at their newly constructed house because they are unable to document an existing load,[14] or the EDC could deny their request because the EDC determines the capacity of their system exceeds 110% of their load.[15] Without any historical data to rely on, the homeowner would be forced to concede and install a smaller system, forgoing the added benefits, or pay for legal and engineering services to challenge the determination. This situation is compounded because the PUC proposes to eliminate its ability to appoint a technical master[16] to aid in the dispute.

As an another example, if a small business decides to install an electric vehicle charging station in its parking lot, it risks being labeled a "utility" under the proposed rules[17] for providing a *de minimis* amount of electricity at retail. This would disqualify that small business from being a customer-generator. While this business may ultimately file a complaint with the PUC regarding this decision, that could involve a considerable expense.

The added uncertainty can only discourage the installation of alternative energy systems and the increased burden on applicants should be considered with the compliance costs.

8 RAF Block 22: Record Keeping Difficulties

The Joint Commentators maintain that demonstrating an alternative energy system provides no more that 110% of a customer's historical load may be burdensome, particularly for individuals and small businesses. The most obvious case is that of new construction where there is no historical data on which to rely. The proposal is silent on how this situation should be handled. If, as discussed above, prospective customer-generators can estimate their load, they must absorb additional costs for the analysis. If actual historical data is required, it effectively prohibits net metering until a usage record is established.

Even in the case of houses with an existing load, just looking up old bills risks creating inequities. Assuming two neighbors with identical homes each want to install the largest permissible solar systems, if one of them has already invested in insulation, weatherstripping, and efficient LED lightning, that neighbor is, in effect, penalized in the 110% calculation. If the EDC is willing to allow the neighbor to estimate load without the efficiency improvements, once again an extensive analysis would be required.

[14] Joint Comments, II.C.
[15] Joint Comments, II.E.
[16] 44 Pa.B. 4185
[17] Joint Comments, II.B.

9 RAF Block 24: Impacts on Small Businesses

The Joint Commentators note that, in evaluating the impact on small businesses, the PUC includes the EDCs, EGSs, and system installers but neglects to include the small businesses and farms who are current or prospective customer-generators that will be harmed by the added restrictions and increased uncertainty associated with this proposal.

10 RAF Block 26: Least Burdensome Alternative

The Joint Commentators are concerned that PUC reports no other alternative provisions were considered and rejected. If this is actually the case, this strongly supports the need for a robust stakeholder process as suggested in block 14.

There are clearly other alternatives to consider. For example, we make the case in our Joint Comments for excluding residential customers from the 110% cap on generation because the benefits are unlikely to justify the burden.[18]

11 RAF Block 27: Regulatory Flexibility Analysis

The Joint Commentators note that this response is incomplete as it does not include the impacts on current or potential customer generators beyond stating that one aspect of the proposal does not typically apply to small businesses.

12 RAF Block 28: Failure to Describe the Basis for the Proposal

We are concerned that the PUC's answer under this block is insufficiently responsive to the question for anyone to formulate an opinion as to the basis for the proposal.

The PUC relies on it's "Experience implementing the AEPS Act" and on the 2012 AEPS Annual Report. The Annual Report describes the regulatory history of the program and some elements of the existing program, but does not contain any data documenting flaws in the program that must be corrected. If experience is going to be used as the sole basis for the regulation, we suggest that the PUC cite specific cases in the docket, or specific correspondence, documenting the need for the proposed changes.

The Joint Commentators are aware of two cases raising similar issues—those of Larry Moyer and of Sunrise Energy.[19] If these, or other cases, represent the "experience" in question the IRRC and public should be so informed. Without knowing the specific issues

[18] Joint Comments at 9.

[19] *Larry Moyer v. PPL Electric Utilities Corp.* (Docket C-2011-2273645), *Sunrise Energy v. PUC* (Pa. Cmmw. Docket 642 CD 2014)

that motivated the rulemaking, it is difficult for any outside party to propose reasonable alternatives.

Furthermore, if this is a case where PUC is "balancing the benefits" as they have suggested above, we recommend they review the report *Value of Distributed Solar Electric Generation to New Jersey and Pennsylvania*[20] that documents the significant system-wide value such systems provide.

13 RAF Block 30: Evaluating Effectivenes

We reiterate the suggestion that any future determinations be made after a formal stakeholder process.

[20] R. Perez, *et. al.*, *Value of Distributed Solar Electric Generation to New Jersey and Pennsylvania* (November, 2012) (*available at:* http://mseia.net/site/wp-content/uploads/2012/05/MSEIA-Final-Benefits-of-Solar-Report-2012-11-01.pdf)

August 28, 2014

Submitted Electronically

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Post Office Box 3265
Harrisburg, PA 17105

RE: Implementation of the Alternative Energy Portfolio Standards Act of 2004,
Docket No. L-2014 2404361

Dear Secretary Chiavetta,

On behalf of the undersigned advocates for robust and appropriate net metering regulations in Pennsylvania, we submit the following comments for consideration in the matter of the proposed changes to net metering regulations in Pennsylvania.

Please contact us if you have additional question or require additional information.

Thank you,

Rob Altenburg
Senior Energy Analyst
PennFuture Energy Center

Ronald Celentano
President
Pennsylvania Solar Energy Industries Association (PASEIA)

Thomas Schuster
Senior Campaign Representative
Sierra Club

Vera Cole
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Mid-Atlantic Renewable Energy Association (MAREA)

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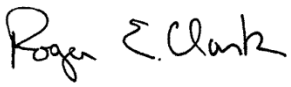

Roger Clark
Fund Manager
Sustainable Development Fund

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Implementation of the	**)**	
Alternative Energy Portfolio Standards	**)**	**Docket No. L-2014-2404361**
Act of 2004	**)**	
	)	

COMMENTS OF JOINT COMMENTATORS

I. Introduction

Citizens for Pennsylvania's Future ("PennFuture"); the Clean Air Council, The Reinvestment Fund, the Mid-Atlantic Renewable Energy Association, the Sierra Club, and the Pennsylvania Solar Energy Industries Association, (hereinafter "Joint Commentators") summit these comments in response to the Public Utility Commission's ("Commission") Proposed Rulemaking Order ("PRO") in Docket No.L-2014-2404361 concerning the implementation of the Alternative Energy Portfolio Standards Act of 2004 ("AEPS" or "the Act") entered on February 20, 2014 and published in the *Pennsylvania Bulletin* on July 5, 2014.

PennFuture is a non-profit, membership-based environmental advocacy organization focusing on land, air, water, and energy issues that impact Pennsylvania. Headquartered at 610 North Third Street, Harrisburg, PA 17101 with offices in Philadelphia, Pittsburgh, and Wilkes-Barre, PennFuture works to create a just future where nature, communities and the economy thrive.

The Clean Air Council is a non-profit environmental organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania 19103. For more than 40 years, the Council has fought to improve air quality across Pennsylvania. The Council has members throughout the Commonwealth who support its mission to protect everyone's right to breathe clean air.

The Reinvestment Fund ("TRF") is a non-profit community development financial institution located at 1700 Market Street, 19th floor, Philadelphia, PA 19103. TRF was selected by the Commission in 1998 to manage the Sustainable Development Fund, which was created by the settlement agreement of the electric utility restructuring proceeding for PECO. SDF has supported solar, wind and other clean energy projects in Pennsylvania and has provided financing for building energy efficiency projects.

The Mid-Atlantic Renewable Energy Association is a 501(c)(3) non-profit dedicated to informing and educating the public on renewable energy production, energy efficiency, and sustainable living through meetings, workshops, educational materials and energy fairs.

The Sierra Club is America's oldest, largest, and most influential grassroots environmental organization, with over 24,000 members in Pennsylvania. The Club promotes conservation by influencing public policy through grassroots activism, public education, lobbying, and litigation. We work to defend the environment at all levels of government including U.S. Congress, state legislatures, and state and federal courts.

Pennsylvania Solar Energy Industries Association ("PASEIA") is the Pennsylvania division of Mid-Atlantic Solar Energy Industries Association ("MSEIA"), which is a not-for-profit trade association of companies, businesses and professionals working in Pennsylvania, New Jersey and Delaware involved in the development, manufacturing, design, construction and installation of solar photovoltaic ("PV") and solar thermal systems.

The Purpose of the AEPS Is to Promote Alternative Energy

The preamble to the AEPS begins, "An act providing for the sale of electric energy generated from renewable and environmentally beneficial sources, for the acquisition of electric energy generated from renewable and environmentally beneficial sources by electric distribution and supply companies…"[1] This purpose to promote the purchase of renewable energy by electric distribution and supply companies is furthered by a robust net metering program under which "[e]xcess generation from net-metered customer-generators shall *receive full retail value for all energy produced on an annual basis.*"[2] Restrictions on such a program that provide customer generators less than that full retail value, that do not promote efficient operation, that restrict availability, or that result in inconsistent interpretations of rules between service territories clash with the overall policy objectives of the AEPS.

The Joint Commentators respectfully submit the following comments calling the Commission's attention to issues in the Proposed Rulemaking Order ("PRO")[3]:

II. Comments on the Proposed Rulemaking Order

A. We oppose the proposed changes to §75.13(k) that would give the Commission authority to allow utilities to charge new fees to customer-generators.

The PRO proposes to amend §75.13(k) by adding new language at the end of the section: "An [electric distribution company] EDC or [default service provider] DSP may not charge a customer-generator a fee or other type of charge unless the fee or charge would apply to other customers that are not customer-generators, *or is specifically authorized under this chapter or by order of the Commission.*"[4]

[1] S.B. 1030 P.N. 1973 (enacted as 73 P.S. § 1648.1 *et seq.*)(November 30, 2004)
[2] 73 P.S. § 1648.5
[3] 44 *Pa.B.* 4179 – 4194
[4] 44 *Pa.B.* 4190, PRO § 75.13(k) (*emphasis added*)

In the Discussion section of the PRO, the Commission states its intent for this change was to allow EDCs or DSPs the ability to recover their administrative costs of setting up and billing virtual net metering accounts, as provided for in §75.14(e). But instead, the actual proposed language allows fees to be charged on *any* net-metered customer, not just customers whose accounts are aggregated through virtual net metering. Even more problematic is the fact that the proposed language does not restrict the fee to the administrative costs of aggregating and billing virtual net metered accounts. There is nothing in the proposed language that would prevent an EDC or DSP to request (and a future Commission to approve) a new charge to compensate for the customer-generator's use of the distribution system or the cost of maintaining generation capacity for times when the customer-generator's system is not generating electricity.

The Joint Commentators believe the new §75.13(k) language needs to be rewritten so that it is firmly within the limits of §75.14(e). As the proposed new language in §75.13(k) now stands, it clearly violates the AEPS guarantee that net metered customers receive the full retail rate for all generation they produce up to their annual usage. A fee would erode that right to full retail rate.

In addition, charging additional fees to those who install alternative energy systems is unnecessary and will increase compliance costs and result in slower adoption of such systems contrary to the purposes of the Act. Furthermore, we are concerned that adding this provision will encourage EDCs and DSPs to seek such fees creating a financial burden on residential and small-business system owners who have or are looking to install alternative energy generation at their homes or businesses.

Moreover, the proposed change fails to provide any basis for determining this fee. If there is to be a fee, it should be based on a full cost of service study that evaluates both the costs and the benefits of each specific net metered system such as the recently completed *Value of Distributed Solar Electric Generation to New Jersey and Pennsylvania*[5] analysis commissioned by PASEIA/MSEIA, which found that solar power delivers a premium value in the range of $150 to $200 per MWh (15 cents to 20 cents per kWh), above the value of the solar electricity generated.

The new language should be clarified such that it clearly applies only to the administrative costs of billing virtual net-metered systems.

B. We believe the proposed new definition for "utility" in §75.1 is overly broad and threatens the third-party ownership model for solar and other distributed generation which the Commission has approved in prior dockets.

While the Discussion section of the PRO[6] indicates the new definition of "utility" is designed to allow non-electric utilities such as water and wastewater utilities to qualify as a customer-generator, the "utility" definition could be interpreted to apply to solar and other alternative energy developers who build and own systems and sell the output to the host customer through a long-term power purchase agreement. We urge the Commission to amend the definition of

[5] *Available at* http://mseia.net/site/wp-content/uploads/2012/05/MSEIA-Final-Benefits-of-Solar-Report-2012-11-01.pdf.
[6] 44 Pa.B. 4181

"utility" so it explicitly preserves the ability to use a third-party ownership business model for net metered systems.

The Commission defines *Customer-generator*, in part, as a "nonutility." Therefore an understanding of customer-generator will be impacted by the definition of *Utility*. Troublingly, the Commission provides conflicting definitions in its discussion in part A.4 of the PRO and the proposed language in Annex A at § 75.1. The Joint Commentators are concerned that the definition in Annex A is overbroad and may cause confusion and inconsistent implementation of net metering programs.

The Order says "we have defined a utility in this context as a person or entity whose *primary business* is electric generation, transmission, or distribution services, at wholesale or retail, to other persons or entities."[7] Annex A, on the other hand, defines the term more broadly as follows: "A person or entity that provides electric generation, transmission or distribution services, at wholesale or retail, to other persons or entities." Critically, the Annex A language does not restrict the definition of utility to entities whose primary business is electric generation, transmission, or distribution.

Under the definition in Annex A, for example, a small-business who wishes to install an electric vehicle charging station selling a trivial amount of electricity to its customers and employees could risk being labeled a "Utility" and would no longer qualify as a customer-generator. The Annex A language could also apply to a solar PV developer who used a third-party ownership model to own a new solar system and "sell" the electricity to the host property power through a power purchase agreement. The efficacy of this business model for deploying solar and other distributed generation has been recognized by the Commission is earlier Orders,[8] but is threatened by this broad definition of *Utility*. The Joint Commentators recommend that the Annex A definition be restricted to those whose *primary business* is generation.

C. The Legislature does not require customer-generators to actually purchase power.

The AEPS defines *Customer-generator* as "[a] nonutility owner or operator of a net metered distributed generation system with a nameplate capacity of not greater than 50 kilowatts if installed at a residential service or not larger than 3,000 kilowatts at other customer service locations. . . ."[9] The Commission maintains that the use of the term "Customer" as part of this definition implies "[t]he person or entity must purchase electricity or electric service to be considered a customer under the AEPS Act."[10] The Joint Commentators maintain that requiring actual purchase of power is an unnecessary extension of the definition, will add to customer confusion, and is contrary to the intent of the Act.

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[7] 44 *Pa.B.* 4181, PRO at A.4. (*emphasis added*)

[8] Net Metering – Use of Third Party Operators, (Docket M-2011-2249441), (March 29, 2012)

[9] 73 P. S. § 1648.2

[10] 44 *Pa.B.* 4181, PRO at A.4.

In drafting the Act, the Legislature contemplated situations where customer-generators go for years at a time with no net consumption of electricity.[11] The Commission has also recognized this possibility in regulation.[12] If actual net purchase of electricity were required, this would create a situation where one could not be a customer-generator if such a system was installed at a newly constructed house, but one would be a customer generator if the exact same system were installed at an identical house after the new owners paid their first power bill. This is an absurd result.

The plain text of the Act specifies that distributed generation systems are those installed at "customer service locations." In context, this definition is most reasonably interpreted to mean those service locations where a party has the *potential* to take power from the grid if needed.

The Commission's stated goals of limiting merchant generators from receiving undue benefits can be adequately accomplished with other provisions, discussed below, so it is unnecessary to extend the definition of *customer* as proposed.

D. We oppose the proposed change in §75.12 to the definition of "virtual meter aggregation" that adds a requirement that all service locations must have separate existing measurable load.

The Joint Commentators agree that the Act's definition of net metering implies that there is a requirement that a customer-generator must have a measurable load independent of the alternative energy system; however, in the case of virtual net metering, it should be sufficient that the customer-generator have measurable electric load overall, not that each and every meter of the customer-generator have measurable load, including at the point of interconnection.

The proposed change is neither implied nor supported by the statutory text.

The statute establishes clear and unambiguous standards for virtual net metering as follows:

> Virtual meter aggregation on properties owned or leased and operated by a customer-generator and located within two miles of the boundaries of the customer-generator's property and within a single electric distribution company's service territory *shall be eligible* for net metering.[13]

The proposed change to §75.12 would prevent appropriate sighting for virtual net metered systems as it requires systems to be installed in proximity to a customer generator's existing meters that have a measurable load. This adds a restriction not found in the statute and one which runs contrary to the statutory language and violates the statutory intent to promote new clean distributed generation.

[11] 73. P.S. § 1648.5
[12] 52 Pa. Code §75.13(c)
[13] 73 Pa. Stat. Ann. § 1648.2 (West) (emphasis added).

The Commission's Justifications for the Restriction Are Untenable.

The Commission argues there is a textual basis for implying an independent load requirement, specifically, net metering requires an independent load against which the generation is netted. This would be reasonable if it were applied at the customer level, as it is fairly implied in the definition of customer-generator. The Commission however impermissibly extends the restriction when it is applied to every individual meter owned by the customer. AEPS expressly allows for aggregation under net metering, and through aggregation, multiple meters can be treated as one thus obviating the need for an independent load on each meter. So long as the customer-generator has a load on one of the meters to be aggregated, the alternative energy system will have a load to offset.

The second component of the Commission's justification is that its own prior regulations imply the restriction. That is, on its face, insufficient authority to deviate from the expressed language of AEPS. But, this threshold issue aside, the Commission's current regulations do *not* in fact imply the proposed restriction. The Commission states, "this requirement is implied in the current regulations, where it states that EDCs shall offer net metering to customer-generators that generate electricity on the customer-generator's side of the meter. Again, there would be no need for a customer's electric meter if there was no independent demand for electricity."[14] Here again, the Commission appears to ignore its own virtual net metering aggregation program. A meter with no independent demand for electricity can record electricity generated to be used to offset electricity consumed at another meter used by the same customer.

In its discussion of the proposed change as it appears in § 75.12, Definitions, and § 75.14, Meters and Metering, the Commission turns to legislative intent to justify the new restriction. The Commission argues that when it introduced virtual net metering in 2006, it was for the limited purpose of reducing the regulatory burdens on farmers who have multiple non-contiguous properties and want to install alternative energy generating systems.[15] The Commission then notes that when the General Assembly amended the AEPS to include, in part, a specific reference to virtual net metering, the statutory language borrows heavily from the Commission's prior regulation.[16] The unstated implication is by adopting the Commission's language, the General Assembly also adopted the Commission's intent.

This argument fails for two reasons. First, the Commission's 2006 Order does not evince intent to offer only a narrow and limited virtual net metering program designed to support agrarian biodigestors. In fact, the opposite is true. The introduction of virtual net metering was couched in terms of broadly promoting alternative energy and heralded as removing unnecessary barriers to the creation of alternative energy generating systems. In proposing virtual net metering, the 2006 Order begins, "The fundamental intent of [the AEPS] is the expansion and increased use of alternative energy systems and energy efficiency practices."[17] While the 2006 Order discusses anaerobic digesters used by farmers as an example of the type of system which would benefit

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[14] *Id.*

[15] *See* 44 *Pa.B. 4183-84*

[16] *Id. at 4184*

[17] *Final Rulemaking Re Net Metering for Customer-Generators Pursuant to Section 5 of the Alternative Energy Portfolio Standards Act*, Docket L-00050174 at 21 (Order entered June 22, 2006).

from virtual net metering, the 2006 Order makes clear that it is but one example. "In addition, PennFuture directed our attention to other types of projects which could meet the requirements for customer-generator net metering, but would be unable to avail themselves of virtual meter aggregation under the regulations as proposed."[18] And tellingly, the Commission adopted many of PennFuture's recommendations aimed at expanding virtual net metering, finding those "comments [were] well directed and provide[d] language that will help alternative generation expand as envisioned by the Act."[19] Per PennFuture's suggestions, the final version of the 2006 Order eliminated the requirement that the aggregated meters be on contiguous properties and that virtual net metering be restricted by rate class.[20] Finally, it must be noted that even if 2006 Order was motivated solely by the desire to expand the use of biodigesters, such a purpose would not support the restriction at issue, as farmers may wish to install biodigesters at locations on their property with no existing meter and thus no existing load. Therefore, the independent load requirement would conflict with this purported purpose of virtual net metering to promote anaerobic digesters.

Second, as fully discussed *supra*, the language of the AEPS and its legislative history reveal a clear intent to promote alternative energy by, in part, removing barriers to the installation of alternative energy systems. Even if the Commission is correct in asserting that its 2006 Order aimed to create only limited virtual net metering, such a purpose is unequivocally trumped by the General Assembly's intent to expand alternative energy in Pennsylvania.

New Construction

We also are concerned that the wording of this definition might be misconstrued by some as prohibiting net metering in the case of new construction. We do not believe that it was the intent of the legislature to mandate the load be present before the alternative energy system if reasonable business judgment would indicate construction of the alternative energy system first would be more practical.

Since the interconnection standards indicate that excess generation is measured on an annual basis, the Joint Commentators believe it is reasonable to allow generation installed before a load to be carried forward within the year in accordance with existing regulations.[21]

E. We disagree with the proposed change in §75.13(a)(3) for the new system size limit of 110% of the customer-generator's annual electric consumption.

The Legislature made clear policy decisions as to the allowable size of systems when it drafted the Act.[22] The Joint Commentators recognize the Commission's proposal as an attempt to prevent merchant generators from obtaining undue subsidies, and not to substitute the

[18] *Id.*
[19] *Id. at* 22.
[20] *Id.*
[21] 52 Pa. Code §75.13(c)
[22] 74 P.S. §1648.2

Commission's judgment as to allowable system size for that of the legislature. In light of this narrow purpose, the Joint Commentators do not believe the changes are justified.

The new limitation is an unnecessary restriction

This new limit is added to the existing limits of 50 kW for residential systems and 3 (or 5) MW for nonresidential systems. We believe this additional size limit is unnecessary and only adds additional uncertainty and regulatory cost. The AEPS statute creates an environment where there is no incentive to over-size systems since any annual production in excess of on-site consumption does not receive net metering treatment and is compensated at the wholesale rate. Sizing a system to overproduce on an annual basis does not make economic sense and additional system size restrictions are simply not necessary.

The Joint Commentators specifically note that the Commission has not provided an analysis showing the 110% restriction would be effective achieving the stated goal. There is also no analysis suggesting the Commission considered alternative measures that would be less intrusive, or less costly for small businesses. Nor does the Commission indicate there have been any cases where disguised merchant generators have successfully obtained net metering benefits under the existing rules and would be prevented from doing so under the proposed changes. In addition to the questionable effectiveness, in its Regulatory Analysis Form submitted to the Independent Regulatory Review Commission has indicated fiscal savings as "0" or "minimal" for government and the regulated community.[23]

Depending on how such a restriction is applied, it could lead to inconsistent implementation across EDCs, discourage legitimate adoption of distributed generation systems the Act was intended to encourage, and act as a de-facto limit on nameplate capacity, all of which would negatively impact customers. It could also create a perverse incentive to avoid energy efficiency upgrades once a system is installed.

Determining consumption and capacity

The Joint Commentators believe the new size limit would be difficult to apply (especially in new construction or gut rehab projects) and could present additional time and expense for customers. While the commission has stated that the costs associated with this provision, at least as related to small businesses, are "anticipated to be minimal as the customer can obtain the usage data from the EDC and the developer already needs the design output of the system to ensure a safe and reliable system."[24] The Commission overlooks the fact that systems may be installed as part of new construction where usage data cannot be easily obtained.

The proposed condition specifies that "[t]he alternative energy system must be sized to generate no more than 110% of the customer-generator's annual electric consumption at the interconnection meter location when combined with all qualifying virtual meter aggregation locations." In the Order, the Commission uses the phrase "sized to generate" immediately prior

[23] Regulatory Analysis Form, 57-304, at 23
[24] Regulatory Analysis Form, 57-304, at (24)(b)

to a discussion of nameplate capacity.[25] However, it is important to note that the phrase "sized to generate" is not limited to nameplate capacity of the generation equipment, but refers to net output at the point of interconnection after considering appropriate capacity factors and system efficiency provided the nameplate capacity does not exceed limits defined in the Act. For example two solar PV systems with very different nameplate capacities may yield the same annual production, or visa-a-versa, because one system consists of the PV array utilizing two-axis trackers which provides continuous optimum orientation and has no shading impacts, while the other system's solar PV array has a fixed, less than optimum orientation along with partial shading.

The inverter nameplate capacity limitation is consistent with the Commission's proposed definition of Electric Nameplate Capacity as used in Subchapter C. Interconnection standards,[26] but the Order is not clear if that definition is intended to be understood in applications outside of that subchapter.

Timing of determination of eligibility

The Joint Commentators appreciate the Commission's explanation that "the customer-generator's annual electric consumption" should be based on "historical or estimated annual system output and customer usage". We recommend, however, that the Commission clarify that this determination be made at the time the distributed generation system is designed or modified, and is not to be applied as an annual test of eligibility. This is consistent with an explanation the Commission made in a footnote to its previous order[27] and resolves a potential situation where customer-generators who invest in measures to increase energy efficiency and lower demand could risk being reclassified as merchant generators.

Creating a situation where changes in the future business climate or production demands could result in a business losing net metering eligibility would create additional risks for a business considering the installation of an alternative energy system. Like any added risks, this would increase the cost of capital and ultimately discourage installation of such systems. We believe such uncertainty is unacceptable.

Exception for residential service locations

Should the Commission choose to adopt the 110% limit as specified in condition 75.13(a)(3), the Joint Commentators recommend that it be limited to systems that are not installed at residential service locations.

There is little risk that a significant number of merchant generators will attempt to disguise their operations as residential. Residential systems are already limited to 50kW (60 to 100 times smaller than systems at commercial locations), and many have 200 amp services which would limit solar installation size to less than 38kW as per the International Electric Code (NEC). In

[25] 44 *Pa.B.* 4181

[26] 52 Pa. Code § 75.22

[27] Net Metering – Use of Third Party Operators, (Docket M-2011-2249441), fn 13 At 6

addition, existing EDC residential service tariffs already include specific limitations restricting commercial activities.

While there is little gained by adding restrictions at residential locations, there are significant risks in applying this provision to customers who often lack the engineering skill and financial resources to independently evaluate the system design or to challenge an EDC in a dispute over their qualification as a customer-generator. Such customers are vulnerable to being sold a system that, while under 50kW, is later determined to be over 110% of their particular load causing significant financial hardship when they are not permitted to engage in net metering. Facing such risks, customers may choose to deliberately under-size their system or forgo installation of a system all together.

Applying this restriction to residential locations also risks inequity as identical systems installed at identical houses may not both qualify as customer generators. This could, in effect, penalize families who have made more energy-efficient choices in the past. These systems will also be particularly vulnerable to inconsistent implementation between EDCs as they are, by definition, below 500 kW and are therefore exempt from requiring individual Commission approval.[28]

The Joint Commentators recognize that Commission intends the 110% limit to be a flexible standard as they have stated that this is "not to be used as a hard kilowatt-hour cap on the customer-generator's system output."[29] While providing flexibility is a reasonable accommodation for larger facilities, taking advantage of such flexibility may take resources that are beyond the means of residential customers.

Elsewhere in this order the Commission has balanced necessity for uniformity and the burden faced by smaller customer generators when it proposes that only larger systems, above 500 kW, that presumably "have the resources to comply with [the] review process"[30] are subject to the requirement for individual approval. While the Joint Commentators do not believe the proposed 110% condition is justified or beneficial, at the very least, granting residential customers an exception from the 110% limit is a reasonable accommodation.

G. We do not support the proposed deletion in §75.51(c) of the Commission ability to appoint a technical master to assist in the resolution of any disputes.

The Joint Commentators understands the Commission has not made use of its power to appoint a technical master, but nevertheless recommends that the Commission retain the provisions proposed for deletion.[31] We are particularly concerned that residential customers and small business are already at a disadvantage when faced with disputes regarding the technical application of the regulations and, with increasing complexity, this is expected to continue. For this reason, it is premature to delete the provisions.

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[28] See 52 Pa. Code § 75.13(a)(7) (*proposed*)
[29] 44 *Pa.B.* 4182, PRO at B.1.
[30] *Id.*
[31] 52 Pa. Code § 75.15

Furthermore, even if the Commission does not make use of its power to designate a technical master, that ability, and the ability of an appointed master to determine costs for the review, serve as an incentive for the parties to make effective use of the existing alternative dispute resolution process.

H. With regard to the Commission's proposed requirement to review and approve customer-generator alternative energy systems which are 500 kW or larger for net metering eligibility, the proposed timeline is much too long compared to the interconnection application review process timeline.

The Joint Commentators recognize the importance of Commission oversight to insure consistent implementation of the Act and do not have an issue with the additional review/approval requirement of alternative energy systems with nameplate capacities of 500 kW or larger, as proposed.[32] However, we are very concerned with the timeline for this review process, which could take up to 70 days. The proposed ruling gives an EDC 20 days to submit their recommendation to the Commission's Bureau of Technical Utility Services ("BTUS"), which then gives the net metering applicant 20 days to respond to the EDC's recommendation, BTUS then has 30 days to finalize their approval or rejection of the net meting application.[33] Even if the net metering applicant responds immediately, this proposed review process could take up to 50 days. This is far longer than the 30 day interconnection application review process, which includes up to 10 days for the EDC to acknowledge that they received the interconnection application, then the EDC has 20 days to evaluate, analyze and report back to the interconnection applicant on the status of their request.

We feel the overall net metering review process should not take any longer than the interconnection application review process, and more importantly, both of these review processes should run in parallel, and should not interfere with each other.

I. We support the Commission's effort to clarify the confusion around "Year and Yearly" but suggest a different start and end dates to the year.

While we support revising the definition of Year and Yearly, we recommend using the calendar year rather than May, 1 through April, 30 as proposed. We believe the Commission's intent was to reduce the amount of surplus solar production at the end of the net metering reporting year. However, average daily solar radiation is only slightly less by April 30 compared to May 31; moreover, electric usage tends to be lowest in the months of April and May, with little electric consumption for heating or cooling loads. Therefore, the surplus of solar production (net usage) will probably not change much with the Commission's proposed date change. By changing net metering reporting year to end on December 31 will minimize the surplus of solar production over an annual period.

[32] 44 *Pa.B.* 4182–33, PRO § 75.13
[33] 44 *Pa.B.* 4185, PRO § 75.17