Secretary
Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265.

RE: Comments on Docket No. L-2014-2404361

(Implementation of the Alternative Energy Portfolio Standards Act of 2004)

Date: July 23, 2014

COMMENTS – PART A

MAJOR ISSUES REMAIN UNCLEAR

To the Public Utility Commission:

In its opening paragraph, the Proposed Rulemaking Order asserts that "it is necessary… to clarify certain issues of law, administrative procedure and policy." The theme is repeated throughout the Order. Unfortunately, instead of clarifying, the Order serves to obscure, complicate, and confuse them.

I. Physical Net Metering vs Virtual Net Metering

A crucial distinction in the AEPS Act is that between physical net metering and virtual net metering, a crucial distinction that the Order fails to illuminate.

First, the two are defined separately in 75.12:

> *Physical meter aggregation—The physical rewiring of all meters regardless of rate class on properties owned or leased and operated by a customer-generator to provide a single point of contact for a single meter to measure electric service for that customer-generator.*
>
> *Virtual meter aggregation—The combination of readings and billing for all meters regardless of rate class on properties owned or leased and operated by a customer-generator by means of the EDC's billing process, rather than through physical rewiring of the customer-generator's property for a physical, single point of contact. Virtual meter aggregation on properties owned or leased and operated by a customer-generator and located within 2 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.*

Again, they are clearly distinguished in 75.14(e)

> *Physical meter aggregation shall be at the customer-generator's expense. The EDC shall provide the necessary equipment to complete physical aggregation. If the customer-generator requests virtual meter aggregation, it shall be provided by the EDC at the customer-generator's expense*

In short, physical metering and virtual metering are two different types of net metering, and both comport with the definition in the statute:

> *Net metering—The means of measuring the difference between the electricity supplied by an electric utility or EGS and the electricity generated by a customer-generator when any portion of the electricity generated by the alternative energy generating system is used to offset part or all of the customer-generator's requirements for electricity (75.12)*

The two types of net metering employ different methods of "measuring the difference" to produce the "net" result that is reflected in the monthly "bills".

In physical metering, there is <u>one</u> existing, bi-directional meter that records both generation and usage. At the end of each month, that single meter simply tracks the "net" result, which is reported in the customer-generator's bill.

In virtual metering, the "billing process" achieves the same result, but aggregates <u>separate meters</u> to produce the "net". That "net" result is reported on the bill, just as it is in physical metering.

When net metering is involved, furthermore, the customer and the customer-generator are one and the same. Whether he selects physical metering or virtual metering, the person or entity is involved in net metering, both as a "customer" ("one who purchases…"-Order, footnote, p. 8) and as a "customer-generator".

The definition is clear:

> *<u>Customer-generator</u>-A nonutility owner or operator of a <u>net metered</u> distributed generation system… (75.1)*

The Order seeks to limit net metering to "customer-generators that generate electricity on the customer-generator's side of the meter…" (Order, p. 10). This limitation has no basis in the statute. If implemented, the Order would arbitrarily exclude some customer-generators from net metering. The Commission has turned the law on its head and argues the opposite of what the law states:

> *"Virtual meter aggregation on properties owned or leased and operated by a customer-generator shall be allowed for purposes of net metering" 75,14(e)*

Virtual meter aggregation is available to all customer-generators, and "shall be provided" "if the customer requests" it (75.14(e).

By imposing its "first condition" and attempting to limit net metering, the PUC reads into the law a requirement that is not there and reads out of the Law the broad access to virtual metering that the law affords.

The foregoing comments demonstrate that the proposed changes not only fail to clarify the issues, but minimize their importance.

II. The "Requirements for Electricity"

The "requirements for electricity" are an essential part of net metering. Regrettably, the Order neglects to explore the significance of this phrase.

> *Net metering—The means of measuring the difference between the electricity supplied by an electric utility or EGS and the electricity generated by a customer-generator when any portion of the electricity generated by the alternative energy generating system is used to offset part or all of the customer-generator's requirements for electricity (52 PA § 75.12)*

The Proposed Rulemaking Order cites the above definition in passing (Order, p. 11), but fails to unwrap its meaning or importance. It is crucial to understand what the statute means by "requirements for electricity" and to determine which "requirements for electricity" are being "offset".

Net metering is designed to measure two sums: what is used and what is generated. That is the "difference between the electricity supplied by an electric utility and the electricity generated by the customer-generator" (definition, above). The proposed "first condition" (also called "non-generation load"), as presented (Order, pp 11-12) only confuses, and blurs the clear meaning of the AEPS Act.

According to the Proposed Rulemaking Order, "The first condition requires the customer-generator to have load, independent of the alternative energy system, behind the meter and point of interconnection of the alternative energy system."(Order, p. 11). The Order then avers that this stipulation is "implied" in the definition of net metering.

There is simply no evidence for this claim. What is "implied" is that, in net metering, generation and usage will differ from month to month, creating a fluctuation in the amount of "offset".

What are the customer-generator's "requirements for electricity"? These "requirements are a crucial part of the definition, whether for physical net metering and for virtual net metering.

In physical metering, the "requirements", of course, are those at the site of generation, and a single bi-directional meter produces the "net" difference.

In virtual metering, however, the "requirements for electricity" are not those at the generating site, and the statute makes no suggestion that they are or should be. The sole objective for virtual metering is to meet the "requirements for electricity" at a different site, within two miles, where optimal solar exposure does not exist (i.e. where physical net metering is not viable). The "requirements for electricity", therefore, under virtual metering, and the incentive for selecting virtual metering, are to be found, not at the generation site, but at the aggregated site, where the electricity is to be applied.

The Order conflates the "requirements" of physical metering with those of virtual net metering, and the error leads to distraction and confusion. The insistence on [non-generation] "load, independent of the alternative energy system, behind the meter and point of interconnection of the alternative energy system" is without justification.

No part of the Proposed Rulemaking Order undermines the intent of the AEPS Act more aggressively than this "first condition" proposed by the Commission. The stipulation has no basis in the AEPS Act and would exclude thousands of potential customers from the benefits provided in the Act.

The practical implications of this issue are enormous.

The site selection for solar generation depends entirely on optimal solar exposure – a "sunny location". Restricting solar installations to existing meters with independent "load", is quite simply, blocking out the sun. It is solar exposure, not existing "load, independent of the alternative energy system" (Order, p. 11), that is the prior "condition" for any solar installation, whether under physical metering or virtual metering. The "non-generational load" restriction would close a door of opportunity that was opened by the AEPS Act. It would constitute a sweeping act of exclusion, denying opportunity to thousands of residential customers whose homes, garages, and sheds happen to be in the

shade. This first "condition" has no basis in the law and must be deleted from the Proposed Rulemaking Order.

III. Implementation of net metering

While the statute is clear about eligibility, the implementation of net metering remains uneven and inconsistent. The Commission should implement greater uniformity in the procedures for implementation. This commenter believes that the following steps would assure greater uniformity in implementation of the AEPS Act.

1. New Rules should distinguish between virtual metering for non-commercial residential customer-generators and virtual metering for installations in "other locations" (i.e. commercial operations).

2. New rules should specify billing procedures that are uniform for all residential customer-generators who elect virtual metering. In current practice, harsh disparities are evident: a) Some utilities issue one consolidated bill; some utilities issue two separate bills; b) Some utilities impose a single monthly charge for both aggregated meters; some utilities impose a separate charge for each meter base.; c) Some utilities designate the generation meter as residential (RS); some utilities designate the generation meter as commercial (GS-1)

3. The Commission should adhere to the plain language of the statute and rule that residential meter aggregation is to be tracked, processed, and reported through one bill and one account.

   Virtual meter aggregation—"The combination of readings and billing for all meters regardless of rate class on properties owned or leased and operated by a customer-generator by means of the EDC's billing process" (75.12)

   "… a credit shall be applied first to the meter through which the generating facility supplies electricity to the distribution system, then through the remaining meters for the customer-generator's account equally at each meter's designated rate" 75.13©

   The statute clearly provides for aggregating "meters", not for aggregating "accounts". Nothing in the statute suggests that a generating system requires a separate account, as some utilities require. Establishing a

separate account just for the generating system is punitive for small residential systems and reduces generation credit by 25% or more. (Note: In the recent PJM year, the separate "line charges" on the commenter's system reduced credits by over 30%.) A separate account which imposes a second monthly charge is discriminatory and is a severe disincentive to customers whose only option is virtual meter aggregation.

4. Any "Incremental expenses" for virtual metering should be specified clearly, applied fairly, and must be limited to the actual [billing] cost of "processing [the] account on a virtual metering basis" 75.14(e).

   "The customer-generator shall be responsible only for any incremental expense entailed in processing his account on a virtual meter aggregation basis" (75.14(e)

5. When the generating system is installed to supply residential "requirements for electricity" ("net metering" in 75.12), the monthly "customer charge" for the account should be based on the residential rate, not based on the commercial rate, as some utilities have done.

6. Customer-generators who install a generating system that supplies electricity for a business should be charged the commercial (GS-1) rate for the account.

Thank you for your consideration of these comments.

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