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October 31, 2013

Pemberton Borough Council
50 Egbert Street
Pemberton, New Jersey 08068

Gentlemen and Ladies of the Council and Members of the Pemberton Borough Public

As most of you are aware, we have been struggling for the past year to resolve issues with the Solar installation that you approved over one year ago. The Installer and I have been struggling to obtain proper operation and provide the information that the current electrical Code 90 requires.

The electrical code requires that a separate revenue grade meter be installed to measure the "EXCESS ENERGY" delivered to the Pemberton Borough Electric Department (PBED).

The Code does not specify how that meter is to be installed. The initial installation had the meter installed in parallel with the other Revenue meter. Your current Electrician specified that the meter be installed in series with the solar generator.

Our tests show that neither configuration meets the code or the intent of the writers. With the Meters in parallel, all the generated power goes to the PBED. With the meters in Series the consumption from the PBED increases measured usage by 1.5% or more while consumption does not change. The Meter measures ALL the generated power not EXCESS.

Both the consumer PURPA and the PBED are required to comply with the Electric Code.

Given this information the following can be stated:

1. Given the requirements Code 90, Article II paragraphs 11 and 12 as cited in the attachment here after referred to as THE CODE, the PBED, agrees to purchase Excess Solar Energy generated by the PURPA at a cost that reflects their equivalent wholesale cost of power through the American Public Utility Association of New Jersey (APUANJ) in accordance with their agreement.
2. In accordance with THE CODE 90 Article II paragraph 11 all deliveries of energy shall be through a separate Billing Meter which is to be paid for by the PURPA and installed by the PBED.
3. The Borough has eluded to a payment for the energy delivered as represented by the meter installed and measuring the EXCESS ENERGY on an Annual basis and will pay the PURPA in accordance with the then rates. Because **the PBED can not measure EXCESS ENERGY they can not comply with the Code.**
4. The Borough installed meter has been inserted into the system as shown on the Electrical Schematic attached dated 10/28/2013 based on the instructions from the Borough Electrician named Jim (609)870-0379 which is different from the original configuration shown on the Schematic dated

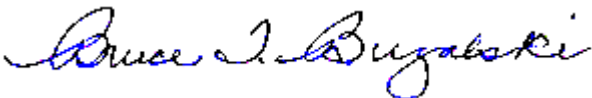
7/24/2013.

5. In the original configuration, all Solar Energy produced went directly to the grid and was treated as EXCESS ENERGY. **The PBED was not in compliance with THE CODE.**
6. In the original configuration the PURPA received no benefit from solar energy other than the PBED purchased ALL ENERGY produced at a price less than half the cost of generation. **The PBED was not in compliance with THE CODE.**
6. In the current configuration the PBED measures and purchases ALL ENERGY produced by the PURPA not the EXCESS ENERGY. **The PBED is not in compliance with THE CODE.**
7. It is the Intent of the PBED and the Code, to purchase only the EXCESS ENERGY, the energy produced but not used by the PURPA at the time of production. This energy can not be measured using the current configuration. **The PBED is not in compliance with the CODE.**
8. "REVERSING METERS" are typically but not always analog meters which run forward and reverse and would be a single meter in place of the prescribed unidirectional Utility Meters. These meters and their more modern DIGITAL NET METERS are prohibited by THE CODE because they measure the NET ENERGY usage, not the EXCESS. REVERSING METER gives the PURPA the benefit of the power generated but not used by returning it in kind. It is the intent of THE CODE to return THE EXCESS SOLAR ENERGY at the retail rate, having purchased THAT SAME EXCESS at the wholesale rate and having received it during Peak Energy usage thereby appreciating considerable savings.
9. It is the intent of the CODE to measure energy going to the grid only when the PURPA is not drawing power from the GRID. This would be the EXCESS ENERGY as prescribed by the CODE There are no Revenue Grade Meters that performs this function. **THE PBED is not in compliance with THE CODE.**
10. Operational compliance would be facilitated using a NET meter (currently prohibited). Such a meter would report the consumption from and delivery to the PBED as well as the net usage. How much is it worth to the PBED to make this problem go away?

I do hereby request that the Borough of Pemberton comply with their Electric Code or change the code such that they can comply with it. It is not acceptable for the PBED to cause all the solar energy to be taken from the PURPA before it can be used. The purchase price of the EXCESS ENERGY is unconscionable. Perhaps the PBED should consider a **FAIR** usage surcharge for Solar Installations and implement net metering.

The system is currently not operational and will remain so until this is resolved. I am willing to Negotiate.

Respectfully submitted.



Pemberton Code,
Chapter 90 Electric Code
Article II Interconnecting Self Generating Equipment
Paragraphs 11 and 12 as listed below.

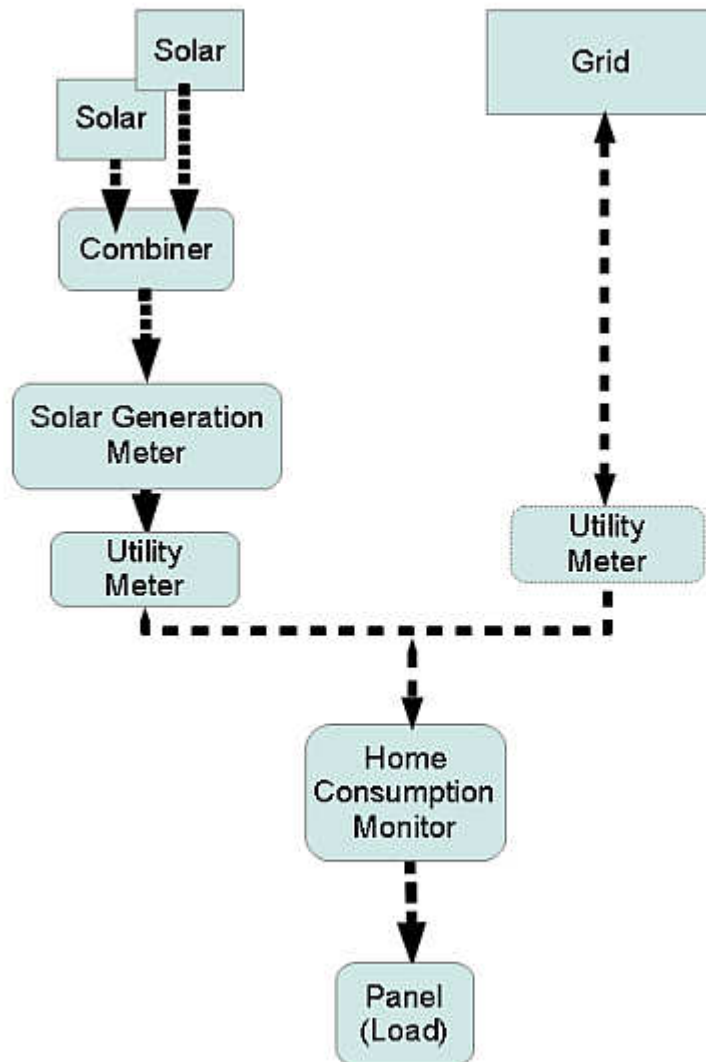
§ 90-11. Meter requirements.

- A. All metering costs associated with the interconnection or the interconnected operation of the equipment shall be the responsibility of the resident-customer.
- B. Any deliveries to the Pemberton Borough electrical distribution system shall be through a separate billing meter. Reversing meters are not permitted.

§ 90-12. Purchase of excess generation.

- A. Pemberton Borough and resident-customer shall enter into an agreement that addresses all purchase and payment obligations. The Borough of Pemberton shall only be required to purchase from PURPA qualifying facilities, pursuant to 18 CFR Section 292.300.
- B. Rates for the purchase of excess energy from the PURPA qualifying facility shall be based upon the Borough of Pemberton's avoided cost. The avoided cost shall be calculated so that it takes into account the all inclusive cost of energy, including capacity costs, availability, dispatchability, load limitations, operating contingencies, or limitation, energy costs, and administrative costs. If the Borough of Pemberton does not require capacity and would receive no benefit from the addition of capacity, the Borough of Pemberton shall only pay for the avoided cost of energy, excluding all capacity costs.

System as Configured 10/28/2013



BTBuzalski 10/28/2013

As specified by Jim (609)870 0379

Original Configuration
7/24/2013

