

BETTS & HOLT LLP

COUNSELLORS AT LAW
1333 H STREET, NW • WEST TOWER 10TH FLOOR • WASHINGTON, DC 20005
TELEPHONE 202.530.3380 • FAX 202.530.3389

February 11, 2013

PRIVILEGED AND CONFIDENTIAL
ATTORNEY CLIENT COMMUNICATION

VIA TELECOPIER and e-mail

Ms. Donna Mull
Borough Clerk
Borough of Pemberton
P.O. Box 261
Pemberton, NJ 08068

RE: Purchases from Customers with Self-Generation

Dear Ms. Mull:

You asked us to review the letter from Mr. Buzalski dated February 20, 2013 (which you provided to us on February 4, 2013), as well as his Letter to the Editor published in the Burlington County Times on January 28, 2013¹ proposing net metering for the electricity generated by his residential solar installation. Mr. Buzalski is asking the Borough to adopt the practices required of investor-owned and non-municipal electric suppliers in New Jersey. No federal or state law requires Pemberton to adopt net metering, and Pemberton specifically did not adopt net metering in 2004. Pemberton's only legal obligation is to allow self-generated electricity to be delivered to the grid.

The Borough's Current Practice

At present, a customer that self-generates electricity but continues to rely on Pemberton's system for receiving electric service is dual metered. This means that one meter measures the amount of electricity consumed by the customer and one meter measures the amount generated by the customer. Pemberton charges the customer the tariff rate for all electricity delivered to that customer. The tariff rate includes several components: the cost per kilowatt-hour charged to the borough under its wholesale energy supply contracts; the cost of PJM transmission and related services; the costs to operate Pemberton's distribution system; and losses. The borough pays the self-generating customer Pemberton's wholesale cost of power, in essence paying the customer the same

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http://www.phillyburbs.com/news/local/burlington_county_times_news/opinion/letters_to_editor/borough-should-be-encouraging-solar-panel-use/article_c2fbc287-630d-5bf4-967d-e3e9785ea1e1.html

amount as it pays under its wholesale energy contract. This amount is currently around \$0.09/kwh and this will decline to less than \$0.06/kwh in June 2014. In essence, Pemberton manages all energy in the same manner, whether that energy is produced in the borough or purchased through PJM.

Mr. Buzalski's Proposal

Mr. Buzalski wants Pemberton to pay for his surplus solar energy that is delivered into the Pemberton distribution system at the same rate per kwh that Mr. Buzalski pays Pemberton under the Borough's electric retail service tariff. Mr. Buzalski frames this as a request for "net metering." Net metering uses a single meter that registers the difference between electricity consumed and electricity generated and delivered to the distribution system. Only the difference is billed or credited at the tariff rate.²

In dual metering, Pemberton tracks exactly how much electricity the customer consumes and how much electricity that customer generates. In net metering, Pemberton cannot ever know exactly how much electricity the customer consumes or generates as these two electricity flows are netted together to form a single metered data point.

Net metering was instituted by some jurisdictions as an incentive to encourage self-generation on the premise that it will reduce the need for generation and transmission facilities, reduce fuel consumption, and be in the public interest. Recognizing that solar installations are quite expensive and unsustainable without special incentives, net metering is part of a package of tax and economic incentives (e.g., Solar Renewable Energy Credits or "SRECs") to encourage solar installations. In essence, Mr. Buzalski is asking Pemberton to adopt the same economic incentive as the state of New Jersey has adopted as a reward for investing in solar generation.

The Question Presented to the Council

The fundamental question presented by Mr. Buzalski is whether Pemberton should encourage solar (or other renewable) generators by changing how much Pemberton pays for energy produced by such facilities or whether Pemberton should continue to purchase all borough energy at the same rate. Whether the Borough should adopt net metering is a policy decision in which the Council must balance the interests of its citizens as ratepayers, the interests of its citizens as users of the environment, and the interests of the self-generators such as Mr. Buzalski.

²Here is the federal definition: "For purposes of this paragraph, the term 'net metering service' means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period." 16 U.S.C. §1261(d)(11) (2013).

Misstatements in Mr. Buzalski's Letter

Mr. Buzalski's letter is incorrect in several respects.

Pemberton's rates are designed to make the Borough and its customers indifferent to the production of self-generated electricity, whereas Mr. Buzalski wishes Pemberton and its customers to subsidize his solar generation installation. At present, Pemberton pays approximately \$.09/kwh for wholesale electricity to Constellation, but starting in June 2014, Pemberton will begin to pay less than \$.06/kwh for its wholesale electric costs. According to Mr. Buzalski, his solar installation costs \$.18/kwh to produce electricity. If Pemberton were to pay Mr. Buzalski's full costs, this would double the rate that Pemberton pays now and would be three times the rate Pemberton expects to pay starting in 2014. There may be policy reasons for paying him more than the market rate, but neither cost savings nor profits are achieved with his proposal. The "gradual reduction" in the price paid by Pemberton referred to in his letter is the result of hard work and effort put forward by Pemberton to provide the lowest wholesale cost of electricity to its customers.

Mr. Buzalski's analogy to a battery misstates how electrical energy actually is used. Energy is not stored. His solar production facility would achieve the various generation, transmission, and environmental benefits expressed in his battery analogy if it was self-sustaining. That would mean that it is actually capable of producing all that his residence requires for every hour of the day and year and, during times when excess electricity is produced, the excess can be stored in batteries which must be installed for use when his installation does not produce sufficient electricity. However, as soon as he relies on the grid, he incurs costs for capacity, transmission, energy, distribution, standby generation, line maintenance, transformation costs, repair trucks, inventory, overhead, etc., in fact, a whole network of people, equipment, generators, and wires that must be immediately available to meet the self-generator's requirements when the generator doesn't produce enough for its own use, such as at night, during inclement weather, etc. As many locations with large solar or wind installations have found, rapidly changing weather--even clouds--can cause sudden ramping up of these standby facilities to supply their customer(s).

The "utility" doesn't subsidize the person that installs solar facilities; the neighbors do. It is a fallacy that the costs paid to solar generators come from "the utility." The dollars paid to solar generators are collected from other customers by the utility as part of the utility's rate structure. While it may be a policy of the state to compel customers in large, investor owned utility footprints to do this, smaller utilities like Pemberton are sensitive to increasing costs for all customers to subsidize another customer, especially when the installation already has been subsidized through tax credits, state incentives, and SREC payments.

Solar is not the most environmentally beneficial or cost-effective alternative to energy purchased off the grid. Energy management, lower consumption, and demand-

side management are far more beneficial in that when no energy is required, no generation is required, resulting in no emissions, and in the longer-term, less invested in transmission and generating capacity. Managed demand reduces spinning reserves, standby generation, and the amount of generation and transmission required to serve a load, much of which sits idle most hours of the day while still imposing costs. Although New Jersey has encouraged solar development where it can be broadly subsidized as a matter of public policy, the state also has made a judgment that municipal utilities are not required to do the same.

As explained in the attached example, Mr. Buzalski is incorrect in claiming that Pemberton's dual metering rate design penalizes a self generation solar customer. Instead, each generator is treated the same as Pemberton's other suppliers of electricity and paid the market rate for electricity. Every kwh consumed by the self-generation customer is charged at the same rate paid by every other customer without self-generation. Pemberton is not profiting from supplying Mr. Buzalski at its normal rates; rather Pemberton is providing a service at cost based rates – the same rates charged to everyone else, and Pemberton is not getting a discount for the electricity Mr. Buzalski generates.

An alternative to consider, which Vineland has used effectively, is to allow the customer access to the wholesale market to sell his solar generated kwh into the PJM grid. Vineland is nationally recognized for encouraging large scale solar generation, and in fact has more kwh's of solar generation per customer than any other utility in the United States, but it pays no more than market prices for any of the generated output. Vineland purchases the output from these large 2 MW (and larger) commercial solar installations at rates based on PJM hourly prices – far less than the \$.18/kwh that Mr. Buzalski wishes Pemberton to pay.

Federal and State Law Do Not Require Pemberton to Offer Net Metering

In 2005 when the United States Congress adopted the Energy Policy Act of 2005, a new federal standard for “net metering” was adopted. 16 U.S.C.S. §1261(d)(11) (2013). This standard, however, applied only to electric utilities subject to federal jurisdiction. “Nonregulated electric utilities”³ such as the municipal electric utility of Pemberton, and state commissions were required to consider whether to adopt “net metering” but were in no way mandated to do so. 16 U.S.C.S. §1261(a) (2013). The Public Power Association of New Jersey (“PPANJ”) considered the issue on behalf of its members and provided materials for Pemberton to decide whether to adopt net metering. Pemberton decided against net metering, opting instead to keep its dual metering tariff first adopted in 2004.

³ “The term ‘nonregulated electric utility’ means any electric utility other than a State regulated electric utility.” 16 U.S.C. §1602(9)(2013).

Municipal utilities such as Pemberton are exempt from the New Jersey law requiring net metering of investor owned utilities. Municipal utilities are exempt from the law establishing competition and renewable portfolio standards, known as EDECA (Electric Discount and Energy Competition Act; N.J. Stat. Ann. §48:3-49 *et seq.*). See N. J. Stat. Ann. §48:3-88 (2012). The net metering provisions in the New Jersey Administrative Code NJAC §14:8-5.1 *et seq.*, were enacted pursuant to EDECA found at N.J. Stat. Ann. §48:3-87 (2012). These net metering requirements have been subsequently amended and expanded, but the net metering requirement remains one imposed by EDECA. Therefore, the initial exemption for municipal utilities such as Pemberton remains in effect.⁴

Conclusion

Mr. Buzalski is asking Pemberton to move away from dual metering and to adopt net metering. His personal reasons for doing so are clear, but the question presented for Pemberton's Council is whether this change is in the interests of all its customers and citizens. Pemberton's existing rates pay Mr. Buzalski exactly the same as Pemberton pays other suppliers, and collects from him charges for electricity consumed exactly the same as charged to other customers. To adopt Mr. Buzalski's proposal would result in a subsidy of solar self-generation by the other customers. This is a policy that the State of New Jersey has adopted that is not imposed upon Pemberton. Pemberton is free to decide to keep dual metering or to move to net metering, if it chooses.

We would be pleased to answer any questions or concerns.

Faithfully yours,

BETTS & HOLT

/s/ Jill M. Barker

Kirk Howard Betts
Jill M. Barker

cc: J. Jablonski (PPANJ)

⁴The definitions found in the New Jersey Administrative Code do not explicitly acknowledge the exemption for municipal utilities found in N.J. Stat. Ann. §48:3-88, so anyone unaware of this code section would not immediately understand that Pemberton is exempt from the net metering requirements.

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Net Metering and Rate Design -- Example Calculation

Pemberton's electric utility rates are designed on the basis of dual metering. Pemberton's costs include both fixed and variable costs, but these costs are lumped together and collected from customers in a single per kwh (variable) charge. This type of rate design is common and widely accepted. When net metering reduces the variable (kwh) meter reading, however, Pemberton is not able to collect the full fixed costs incurred to serve the net metered customer. When net metering is used in conjunction with a rate design that collects fixed costs on a variable cost basis, the other customers subsidize the net metered customer. While the impact for a single customer is quite small, \$1.50 per year for Customer A, \$30 per year for the entire Utility P, as seen in the below example, collectively the costs can accumulate to the point where the subsidy is not tolerable. In fact, many state commissions that were early adopters of net metering are now taking a second look to analyze whether such subsidies are good policy.⁵

Example:

Year 2 Rates are Set. Suppose Utility P sets rates annually on the basis of historical usage and expected costs. Year 1 (last year) it had 150 customers that consumed 1,000,000 kwh. It expects to have fixed costs of \$50,000 (\$0.05/kwh) and variable costs of \$80,000 (\$0.08/kwh) for a total of \$130,000. So, it calculates a rate of \$0.13/kwh for each kwh of metered consumption in Year 2. (\$130,000/1,000,000 kwh). **Customer A (with no self-generation) has annual usage of 7,500 kwh and pays \$975 for the year in Year 2 (7,500 kwh *\$0.13).**

Self-Generation Dual Metered Customer. Assume that one self-generation customer annually consumes 6,000 kwh and produces 600 kwh. This customer is dual metered. This customer pays \$780 (6,000 *\$0.13) for its consumption and is paid \$48 (600*\$0.08) for its generation. The customer's "net" bill for Year 2 is \$732 (\$780-\$48). **The other customers are unaffected by this self-generation customer because the variable price used to pay this customer, \$0.08/kwh, was paid to this customer rather than to the wholesale supplier that would have otherwise been paid this price to serve Pemberton's customers.**

(continued next page)

⁵ See National Association of Regulatory Utility Commissioners (NARUC) annual meeting agenda, Washington, D.C. February 3-6, 2013.

Attachment A, page 2 of 2

Net Metering and Rate Design -- Example Calculation

Self Generation Net Metered Customer. Now assume the same self-generation customer is “net metered.” Utility P does not know how much the customer consumes or how much the customer generates, but the “net” is 5,400 kwh per year (6,000kwh consumed – 600 kwh produced). The customer pays \$702 (5,400*\$0.13). At the end of Year 2, **Utility P is short by \$30 because it did not collect the fixed costs it expected to recover from the self-generation customer (\$0.05/kwh *600 kwh).** To make up the shortfall, Utility P must raise rates of all customers in Year 3.

Year 3 costs are forecasted to be the same as Year 2, plus \$30 = \$130,030. Moreover, the kwh usage in Year 3 is expected to be less than Year 2 due to the net metering offset: 1,000,000-600 = 999,400. Utility P decides to set rates for Year 3 at \$0.1302/kwh (\$130,030/999,400). **Customer A has annual usage of 7,500 kwh and pays \$976.50 in Year 3 -- \$1.50 per more than Year 2 despite having the exact same usage in both years.**