

STATE OF NEW HAMPSHIRE  
before the  
PUBLIC UTILITIES COMMISSION

Revised Chapter 900 Rules on Net Metering  
Docket No. DRM 08-148

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE'S  
FINAL WRITTEN COMMENTS

The Commission's Order of Notice in this proceeding and the Rulemaking Register call for written comments to be submitted on the proposed revision and amendments to the Chapter 900 Rules on Net Metering by June 25, 2009. Public Service Company of New Hampshire ("PSNH") hereby submits its Written Comments. PSNH will first respond to comments made by the Interstate Renewable Energy Council and then offer comments on the issue of whether the utilities can require a disconnect switch.

I. Interrelationship between Docket DE 06-061 and DRM 08-148

The Commission should be aware that a concurrent proceeding on interconnection standards was being conducted as part of the Investigation into the Implementation of the Energy Policy Act of 2005, Docket No. DE 06-061. In December 2008, tariffs<sup>1</sup> were filed by the electric utilities after consultation with Commission Staff, the Office of Consumer Advocate and other interested parties. Those tariff filing were in compliance with

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<sup>1</sup> PSNH filed abbreviated tariff pages which incorporated and referenced the "Interconnection Standards for Inverters Sized Up to 100 KVA" filed at the same time, December 12, 2008.

Order No. 24,893, and they represent a virtual consensus on interconnection of generators up to 10 kilovolt-amperes and inverter based installations up to 100 kilovolt-amperes. The net metering rules submitted by the Staff and adopted as the Commission's Initial Proposal represent a collaborative effort not only in this proceeding but also in the Interconnection Standards portion of the Energy Policy Act of 2005 proceeding, Docket DE 06-061. For example, the screens that Mr. Keyes of the Interstate Renewable Energy Council spoke of to immediately qualify certain inverter-based systems are found in the tariffs and standards filed in Docket DE 06-061. Standard terms and conditions are also found in those tariffs and standards.

I. Definition of Owner/Operator Puc §904.02

Mr. Jason Keyes spoke for the Interstate Renewable Energy Council. He mentioned that the definition of "Eligible customer-generator" may preclude third parties from owning and installing generation on the customer's premises such as a low income or elderly housing facility. The definition of "Eligible customer-generator" in the Initial Proposal is as follows:

Puc 902.04 "Eligible customer-generator ("customer-generator") means "an electric utility customer who owns and operates electrical generating facilities powered by renewable energy with a total peak generating capacity of not more than 100 kilowatts (kW) that is located on the customer's premises, is interconnected and operates in parallel with the electric grid, and is intended primarily to offset part or all of the customer's own electricity requirements.

PSNH needs contact information for a person that understands the installed generating system, is responsible for maintaining the interconnection and protection equipment and one who can shut down or disconnect the system in an emergency. In order to accommodate Mr. Keyes' concern, PSNH suggests that the following information be added to the definition of "Eligible customer-generator":

If the customer is not the operator of the electric generating facility, then the electric utility shall require the customer to supply the contact information for the person who operates and maintains the electric generating facility.

### III. Seventy-five Day Deadline for Review of Non-Inverter Based Applications

Mr. Keyes objected to the period of 75 days for the review of an application for non-inverter based installation up to 25 kilowatts. Puc §904.05 (m). PSNH believes this time period is reasonable and necessary in the fact that the absence of an inverter requires analysis of the protection systems that will be installed by the customer. PSNH employees who would address this type of application are also performing interconnection studies for all types of distributed generation seeking to interconnect with the PSNH system. They also analyze modifications PSNH is making to its own system to assess the need for protection devices and configurations on the system. Seventy five days is a minimum given the tasks to be performed for these net metering applicants and all the duties of these key PSNH personnel.

### IV. Manual Disconnect Switch

PSNH disagrees with the language of Puc §905.01. For non-inverter based systems, PSNH must retain the right to require the customer pay for a manual disconnect switch. The reasons are protection of the utility facilities, safety of the public and utility workers and the long established principle that the electric generating facility interconnecting with the distribution system shall pay for all reasonable requirements of the interconnecting utility.

Inverters based on their inherent design characteristics and integral internal protective functionality provide protection to the utility system. When off-site power is lost, the inverter stops the flow of electricity to the system. These devices are UL® listed. PSNH is comfortable that the majority of systems that employ inverters will not be a concern and do not require a manual disconnect switch. For non-inverter based systems, however, a manual disconnect switch may need to be operated in an emergency and may allow for more rapid restoration of power. Pulling a customer's meter, Puc §905.01(b)(1), interrupts the flow of current only for the small, single phase residential customer. Disconnecting at the transformer §905.01(b)(2) requires the presence of a crew and a line truck on the scene. Emergency personnel dealing with downed wires do not need an additional delay while a line crew disconnects generators at their transformers. An emergency shutdown switch can trip just the generator; however, depending on the location of the switch, the customer's load may or may not be disconnected from the utility system. The cost of a disconnect switch installed is based on the size of the project. Generally the cost is modest with respect to the cost of the entire system. PSNH requires this installation of a manual disconnect switch for all non-inverter based interconnections that are not net metered. Absent a provision in the net metering rules providing for the requirement of a disconnect switch in non-inverter based interconnections, may require PSNH to install such a switch at its own expense. There has been a long standing tradition of the interconnecting customer paying for the entire cost of the necessary devices to protect the distribution system and the persons who work on them. This requirement, or the option for utility's to require manual disconnect switches on only non-inverter based systems will not impair the development of net metering.

Respectfully submitted,

Public Service Company of New Hampshire

June 25 2009  
Date

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#### CERTIFICATE OF SERVICE

I hereby certify that, on the date written below, I caused a copy of the attached Final Written Comments to be served on all persons who spoke at the public hearing pursuant to Puc § 203.02 and Puc § 203.11.

June 25 2009  
Date

Gerald M. Eaton  
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