THE COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

Electric industry restructuring	)	D.P.U./D.T.E. 96-100

COMMENTS OF THE
NORTHEAST ENERGY EFFICIENCY COUNCIL

The Northeast Energy Efficiency Council (NEEC) is pleased to submit the following comments in response to the Department's request for comments on its proposed regulations, 220 CMR 11.00 Rules Governing the Restructuring of the Electric Industry.

1. Exit Fees: Section 11.03(3)(d)

Our primary area of comment concerns section 11.03(3)(d) of the proposed regulations. This section addresses the circumstances under which customers may be charged an "exit fee" if they reduce purchases of electricity through the operation of on-site generation or cogeneration equipment.

Section 1G(g) of Chapter 164 of the General Laws creates a very complex scheme for determining whether or not a customer may be charged an exit fee. It also leaves many of the implementation details to be established through "criteria promulgated by the department." G.L. Chapter 164, § 1G(g). However, the proposed regulation merely states that the Department will determine whether an exit fee may be charged "in

accordance with the provisions" of the statute. Proposed 220 CMR 11.03(3)(d). It does not offer any guidance as to how the statute will be interpreted and does not fill-in any of the gaps in the statutory scheme.

We recognize that the Department is operating under acute time pressure in promulgating these regulations. The short period of time between the enactment of the Electric Industry Restructuring Act and the commencement of retail choice makes it impossible to address all of the implementation details at this stage of this proceeding.

However, without further guidance from the Department, it will be extremely difficult for customers to determine whether or not they will be subject to an exit fee if they go forward with a potential on-site cogeneration project. Obviously, the potential for an exit fee is a very important factor in calculating the costs and benefits of any such project. Without additional regulatory clarity, customers will be forced to choose between postponing a cogeneration project or moving forward based on guesswork.

While it may not be possible to address all of the implementation details regarding exit fees at this time, one area that could be easily clarified is the calculation of the "50 percent efficiency standard." Section 1G(g) of Chapter 164 provides that customers will not be subject to an exit fee if they reduce electricity purchases through the operation of on-site cogeneration equipment "with a combined heat and power system efficiency of at least 50 percent, based on the higher heating value of the fuel used in the system." However, the statute does not offer any guidance as to how to calculate whether a project meets that efficiency standard.

Fortunately, the regulations promulgated by the Federal Energy Regulatory Commission (FERC) under the Public Utility Regulatory Policies Act (PURPA) provide a

useful model for calculating the efficiency of cogeneration equipment. See 18 CFR § 292.202(g) - (j) and 18 CFR § 292.205. Using those regulations as a model, we suggest the following additions to the Department's proposed regulations.

First, in Section 11.02, add the following definitions:

Total energy input means the total energy of all forms supplied from external sources.

Total energy output of cogeneration equipment is the sum of the useful power output and useful thermal energy output.

Useful power output of cogeneration equipment means the electric or mechanical energy made available for use, exclusive of any such energy used in the power production process.

Useful thermal energy output of cogeneration equipment means the thermal energy:

1. That is made available to an industrial or commercial process (net of any heat contained in condensate return and/or makeup water);

2. That is made available to a district heating system or is used in a heating application (e.g., space heating, domestic hot water heating); or

3. That is made available to a district cooling system or is used in a cooling application (i.e., thermal energy used by an absorption chiller).

Second, add the following sentence and formula at the end of section 11.03(3)(d) of the Department's proposed rules:

For the purposes of this section, the efficiency of cogeneration equipment shall be calculated as follows: the useful power output plus the useful thermal energy output must be at least 50 percent of the total energy input, based upon the higher heating value of the fuel used in the system.

$$\frac{\text{Useful power output + useful thermal output}}{\text{Total energy input}} \geq 50\%$$

As indicated above, these proposed definitions and formula are based upon, and track very closely, the FERC regulations implementing PURPA. The key differences are as follows:

1. As required by the Electric Restructuring Act, the efficiency standard is set at 50 percent as opposed to the lower efficiency standards in the FERC regulations.
2. As required by the Electric Restructuring Act, the energy input is based on the "higher heating value of the fuel used in the system."
3. The full useful thermal energy output is counted, rather than only one-half of that output as is the case under the FERC regulations. Nothing in the Electric Restructuring Act suggests that anything less than the full useful thermal energy output should be counted.
4. The definition of "useful thermal energy output" explicitly includes thermal energy made available to a district heating or cooling system. This will help maximize the utilization of the thermal output, and thus maximize energy efficiency. The FERC regulations do not specifically address this point one way or another. However, FERC orders have made it clear that the thermal output of a QF need not be consumed on-site. See Union Carbide Corporation, 48 F.E.R.C. P61,130, n.31 (July 28, 1989) ("It should be noted that neither the Commission's regulations nor PURPA require that the QF itself use the steam produced by the facility in order to obtain QF status, i.e., a steam customer off-site can consume the useful thermal output of the facility.")

1. **Net Metering: Section 11.04(7)(d)**

Section 11.04(7)(d) sets forth rules under which customers with on-site generation facilities of 60 kW or less may engage in net metering. On the whole, this section creates very favorable conditions for the use of small generating facilities.

However, two important changes would further the objectives of this section. First, there is a potential ambiguity in the final sentence of the section, which reads: "Net metering customers must still pay the minimum charge for Distribution Service … and all other charges for each kilowatthour delivered by the Distribution Company in each billing period." The potential ambiguity is that the sentence could be misinterpreted to mean each "gross" kilowatthour delivered as opposed to each "net" kilowatthour delivered. The potential ambiguity could be eliminated by modifying the sentence to read "… and all other charges for each <u>net</u> kilowatthour delivered by the Distribution Company in each billing period."

A second issue which is of critical importance to the small generating facilities that are eligible for net metering is the six month advance notice provisions discussed in Section 1G(g) of Chapter 164. Section 1G(g) discusses a six month advance notice requirement in two contexts. First, if a customer provides six months advance notice to the utility and the department (as well as meet other requirements), the customer is not subject to an exit charge. Second, utilities and the department are prohibited from requiring more than six months notice of a customer's plans to install on-site generation equipment, excepts as provided in existing contracts or tariffs.

The department should exempt facilities that are eligible for net metering from the six month notice requirements. A six month notice is perfectly reasonable for large-scale,

on-site generation. However, six months notice is excessive for the small-scale equipment that is eligible for net metering. For example, one Massachusetts company manufactures residential cogeneration systems. These systems replace a conventional home heating system. Like most conventional systems, they are typically bought shortly before the start of the heating season at a time when the customer's existing heating system needs to be replaced. A six month advance notice requirement would prevent the customer from installing the cogeneration system when he needs it, and thus would force him to choose a conventional heating system instead.

Moreover, a six month notice requirement is inconsistent with the Interconnection Standards referred to in section 11.04(7)(d) and established in the Model Terms and Conditions. The Interconnection Standards require forty-five days advance notice to the utility. Model Terms and Conditions for Distribution Service, § 7D. A forty-five day advance notice period is already burdensome for a small, on-site generating system. Six months would be excessive for these small systems.

Respectfully submitted,

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