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BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Commission's Response to Provisions of the Federal Energy Policy Act of 2005 Regarding Net Metering, Smart Metering and Demand Response, Cogeneration and Power Production Purchase and Sale Requirements, and Interconnection.	)	Case No. 05-1500-EL-COI

Comments in Response to Commission Entry issued December 14, 2005

I. Net metering

Case No. 05-1500-EL-COI
The definition section of the net metering rule limits the size of microturbines to 100kw.

A. What technology developments make this size limitation difficult?

The inherent problem with this question is that it appears to be limited to microturbines. Is there some rational reason that other generation technologies are excluded from net metering? Particularly technologies such as Heat Recovery Power Generation (HRPG) that capture waste heat from industrial processes and convert it to useful energy?

1. Should this size limitation be waived? Why? Why not?

Absolutely. By limiting the size, there is an implicit limit on the economies of scale that come with building bigger systems. The real question is why would there ever be a size limit.

If limitations are necessary, then make the limitations reflect the characteristics of higher "quality" power sources, such as stability and availability. A power source that provides steady power with a high availability (85+%) should be encouraged by Ohio PUC, not discouraged as is currently the case.

2. What size limitation(s) makes sense?

No size limitation make sense. I would suggest net metering that is based upon monthly availability (or load factor). That is, the higher the load factor, the higher the price paid for power by the utility. In that way, an intermittent power source would not be paid at as high of a rate as a stable 24x7 power source.

The highest price paid by the utility should be set at the hourly Locational Marginal Pricing (LMP) at the nearest hub in either the Midwest ISO or the PJM ISO area, depending on the Ohio location of the customer's generation facility. That value is a fair proxy for the market value of power during each hour of each day. If the utility wants to buy power for 1 ¢ per kWh, it should be willing to sell power for the same price. That is what the LMP represents.

B. What other advances in net metering technology have taken place? For each of the technologies described, please provide clarification as to potential size, cost, availability and potential cost of fuels. What are the benefits to the customer-owner of using these technologies?

My position in this discussion is from the arena of Heat Recovery Power Generation. I work with clients around the country investigating the potential of generating power from waste heat that is currently released as thermal pollution. In many cases, the amount of power generation potential exceeds the power consumption of the facility. In Ohio, that means that the project must be reduced to only take advantage of a portion of the power available, since the current rules and regulations make it infeasible to move ahead with construction of a generating facility that would produce the maximum potential power with NO additional fuel consumption. This is unfortunate both from the position of lost Ohio construction dollars as well as missed opportunity to reduce power plant-related pollution.

C. What is the current status of net-metering in Ohio as it relates to the one-percent of aggregate customer peak demand that is available to net-metering customers?

1. How close has each electric distribution utility (EDU) come to meeting the one-percent of aggregate customer peak demand that is available for net metering customers?

Why does this effort target 1% of aggregate customer peak demand? If there were to be any target, it should be much higher than 1%. If clean, stable, cost effective power can be made available to the utility on a reliable 24x7 basis, the rules should encourage more, rather than less, of that quality of power generation.

2. To what extent have small customer generators taken advantage of the opportunities provided by the 100 kW capacity-limitation for microturbines?

I have no meaningful input on this topic.

3. Do the environmental groups still maintain their pervious concerns about small customer generators being excluded by the large customer generators?

Why are environmental groups focused on small energy sources rather than clean energy sources?

D. What rule clarification is needed about whether a customer generator may install more than one microturbine?

Once again, why is size or number even an issue. Target stability, cost and quality in order to offset utility requirements for additional generation capacity construction.

1. Should the net metering rules be clarified to permit more than one microturbine per customer per site? Why, and under what conditions?

Remove limitation and provide a net metering purchase formula that begins with hourly LMP pricing at the nearest ISO node and then discounts the power based on monthly load factor (i.e. Average monthly generation compared to Peak 15-minute generation)

2. Should the net metering rules be clarified to prohibit more than one microturbine per customer per site, and why?

Once again, why is size or number even an issue. Target stability, cost and quality in order to offset utility requirements for additional generation capacity construction.

II. Smart metering and demand response.

A. What is the effect of "smart" or real time pricing metering on customers' demand response?

Net metering should be based upon net power generation load factor and real time LMP pricing. For example, if a 500 kW net generator produces at a 95% load factor, then the amount paid could be the hourly net generation times the hourly LMP price at the nearest ISO node time the load factor (95%). If the generator only provided net generation 50 % of the time then the value to the utility and it's customers would be considerably less. Also, the time of the net generation is important and would be fairly considered by the LMP value.

B. What are the latest developments in "smart metering" or real-time pricing metering technologies,

I have no meaningful input on this topic.

1. What is the current cost of these technologies?

I have no meaningful input on this topic.

2. Are any associated communications equipment required? Please clarify as to cost and availability of communications equipment.

I have no meaningful input on this topic.

C. Should Smart metering be made mandatory? For all customer classes?

I have no meaningful input on this topic.

1. If all customers were required to have time-of-day or real-time-pricing metering, what would be the cost to the company/customer?

I have no meaningful input on this topic.

2. How would the results of such metering be displayed to the customer? On the customer's bill? Would the customer billing format have to be changed to accommodate this information?

I have no meaningful input on this topic.

D. What sort of "real-time prices" would be displayed? At the cost to the EDU or CRES provider?

I have no meaningful input on this topic.

E. How would the customer be expected to make use of the information?

I have no meaningful input on this topic.

F. Should smart metering be voluntary and installed at the customer's request? Please clarify the cost-effectiveness and the benefits of this technology and the extent to which such technologies might be deployed.

I have no meaningful input on this topic.

III. Cogeneration and small power production purchase and sale requirements.

A. What choices are or should be made available to interconnection customers for stand-by and back-up power that are competitive with the current electric utility rates for "supplementary power," "back-up power," "interruptible power," "and "maintenance power" that have been available since 1982.

I have no meaningful input on this topic.

B. What are the utility companies rates for stand-by power against which the alternative supplier has to compete?

I have no meaningful input on this topic.

C. Since competitive retail electric service (CRES) providers do not file tariffs with the Commission, what provisions should be included in a bilateral contract for "competitive" stand-by power? What terms?

I have no meaningful input on this topic.

D. Would it be reasonable to consider an aggregate state-wide retail stand-by power pool to provide for back-up energy needs to account for customer generation staggered maintenance and repair schedules? How could this work?

I have no meaningful input on this topic.

E. What mechanisms should be available to provide information to the generating-owning customer to provide opportunities to "shop" for stand-by power?

I have no meaningful input on this topic.

IV. Interconnection.

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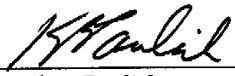
A. How has the adoption of IEEE 1547 affected interconnection to distribution systems in Ohio?

I have no meaningful input on this topic.

B. What updates or remaining distributed resource standards are being considered relative to IEEE 1547 or are ready for adoption by the IEEE Board?

I have no meaningful input on this topic.

Signature:	
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