Public Service Commission of Wisconsin

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COPY

Honorable Gary Tauchen
State Capitol
P.O. Box 8953
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Re: Renewable Energy Development in Wisconsin

Dear Representative Tauchen:

Thank you for your letter, which the Public Service Commission received on January 9, 2012, asking questions about cost-effective renewable energy development in Wisconsin. Your letter stated that you are interested in promoting third-party power purchase agreements (PPA) that involve property owners, a third-party owner or operator of renewable energy systems, and may also involve electric utilities. You asked the Commission for information about the legality of third-party PPAs under current Wisconsin law and their potential effectiveness and appropriateness in Wisconsin. You have offered us some references to statutes, rules, and Public Utility Commission decisions from other states that may be relevant.

This letter responds to your concerns. It provides basic information about public utility law in Wisconsin, about how current law affects third-party PPAs for renewable electricity production, and about how our law could be changed to allow this kind of PPA. This letter will also address the other states that you mentioned in your letter.

Current law in Wisconsin

In Wisconsin, electric public utilities are highly-regulated monopolies. When the Commission grants an electric utility a "service territory," the utility acquires the sole right to provide electric service at retail in that area. In exchange, the electric utility must charge rates that the Commission has approved and is subject to extensive regulation by the Commission.

State law prescribes what constitutes a public utility. Under the statutory definition, almost any entity constitutes a public utility if it owns, operates, manages, or controls "any part of a plant or equipment, within the state, for the production, transmission, delivery or furnishing of heat, light, water or power either directly or indirectly to or for the public." Wis. Stat. § 196.01(5)(a). This law's coverage is very broad. In general, an entity that owns or operates electric equipment to provide electricity to consumers at retail is an electric utility. Every electric utility is subject to the public utility laws, rules, and Commission orders.

How does this law affect renewable energy and third-party PPAs in Wisconsin? Let's discuss some typical situations. Suppose a Solar Company wants to generate and sell renewable energy

to companies and private homeowners in Wisconsin. The Solar Company intends to install solar photovoltaic panels on the rooftops of these companies or homes throughout Wisconsin, and it will own and operate the panels. The Solar Company will sell the electricity it generates directly to the Rooftop Owner; if it produces excess power, it will seek to sell that power to the local electric utility. Or, in a similar situation, suppose a Biogas Company wants to do business with local farmers across Wisconsin. The Biogas Company will install and maintain an anaerobic digester, converting manure to a biogas that it burns to create electricity, and it will deliver the electricity to the farmer. If the generator fueled by the biogas produces enough electricity, the Biogas Company will seek a contract to sell excess electricity to the local electric utility. The Solar Company would write a third-party PPA with the Rooftop Owner, or the Biogas Company would write a third-party PPA with the farmer, explaining the details of the transaction and setting the retail price for purchasing the renewable electricity.

This kind of third-party PPA would allow the customer to have a renewable electricity generator on the premises without necessarily requiring the customer to make a large capital investment in the facilities, and typically without making the customer responsible for operation and maintenance of the generator. Your primary question relates to the sale or provision of electricity to a customer through such a third-party PPA. A secondary question relates to how the local utility company would treat any excess electricity generated in such a situation.

Under the arrangements described above, both the Solar Company and the Biogas Company would meet Wisconsin's statutory definition of a public utility. They would own or operate equipment that produces heat, light, or power. Their business plan would be to deliver the heat, light, or power to retail customers. The Wisconsin Supreme Court has held that providing heat, light, or power to only a few neighbors, as an incident to some other commercial operation, is not a public utility service. *See City of Sun Prairie v. PSC,* 37 Wis. 2d 96, 99-100 (1967) and *Cawker v. Meyer*, 147 Wis. 320, 324-25 (1911), where the Court explained what service "to or for the public" means under the statutory definition of a public utility. However, the business models of the Solar Company and the Biogas Company would not meet the exemption of *Sun Prairie* or *Cawker* because the Solar and Biogas Companies are providing heat, light, or power to customers in general and because their purpose is to produce heat, light, or power. As a result, state law would define them as regulated public utilities.

Under these hypothetical circumstances, the Solar Company and the Biogas Company could not do business in Wisconsin without first receiving a certificate of authority from the Commission to operate as public utilities. These companies would need to create service territories, carved out of the existing service territories of other electric utilities. Both the Solar Company and the Biogas Company would then be subject to the Commission's regulatory authority.

One exemption from Wisconsin's public utilities law is the situation where someone provides utility service to himself or herself. A business, for example, could own and operate its own photovoltaic panels or its own methane digester and generator, solely to produce electricity that it consumes. This is known as "self-generation." Anyone who produces renewable energy only

for personal use is a self-generator, not a public utility. Another exemption from the public utilities law is where an electric utility customer, for instance the owner or farmer himself, owns an electric generator and uses the facility not just for self-generation, but also to sell excess power back to the electric utility. This is known as "customer-owned generation." Because all the electric sales of a customer-owned generator are wholesale transactions with the local utility, not retail transactions with any other customers or third party PPAs, these sales are exempt from the statutory definition of public utility service. Neither a self-generator nor a customer-owned generator is a public utility under Wisconsin law, and neither is subject to public utility regulation.

The Commission regularly receives informal requests to examine the legality or practicality of using third-party PPAs as a business model in Wisconsin. Because the precise details of each situation always vary, the answer for a particular situation will depend heavily on the facts presented to the Commission. The Commission's formal opinions to date are very case-specific, as each opinion is decided upon whether a certain third-party PPA or similar arrangement meets the definition of a public utility.

Laws of other states

We have reviewed the laws and regulations of the seven states that you highlighted in your letter. The regulatory framework of each state is unique. Some of these states, such as Illinois, have deregulated their utilities. Any deregulated or partially deregulated state has an entirely different public utility structure than Wisconsin, but unfortunately we were unable to easily identify the extent to which the seven states you mentioned have deregulated their public utilities. For this and other reasons explained below, our examination of the laws and regulations from the other states did not always help us consider options for Wisconsin.

Regardless of uncertainty about the level of deregulation in other states, we looked at each state's laws and regulations to identify any new ideas that might have value. You specifically identified some recent laws, rules, and orders from Michigan, Illinois, California, Colorado, Massachusetts, New York, and North Carolina.

The North Carolina citation includes that state's definition of "public utility," and it does not include any specific exemptions that relate to renewable resources or third-party PPAs.

The New York citation you provided includes a reference to an exemption to its state definition of "electric corporation" for certain facilities:

> [W]here electricity is generated by the producer solely from one or more co-generation, small hydro or alternate energy production facilities or distributed solely from one or more of such facilities *to users located at or near a project site.*

New York Pub. Serv. Law ch. 48, § 2-13 (emphasis added). "Alternative energy production facility" includes various types of generators, including solar, wind and other sources typically considered "renewable," with a generating capacity of up to 80 megawatts. *Id.* at § 2-2-b. The exemption for any electricity distributed "to users located at or near a project site" is unclear.

Two states with particularly relevant information are Colorado and California. In 2009, Colorado established a statutory exemption to the definition of a "public utility." Colorado law now declares:

> The supply of electricity or heat to a consumer of the electricity or heat from solar generating equipment located on the site of the consumer's property, which equipment is owned or operated by an entity other than the consumer, shall not subject the owner or operator of the on-site solar generating equipment to regulation as a public utility if the solar generating equipment is sized to supply no more than one hundred twenty percent of the average annual consumption of electricity by the consumer at that site.

Colo. St. § 40-1-103(2)(c). This exemption in Colorado applies to all continuous property owned or leased by the applicable consumer, without regard to interruptions in continuity due to easements, public thoroughfares, or rights of way. *Id.*

In addition to this public utility exemption, you cited a set of Colorado statutes and rules mostly about that state's Renewable Energy Standard. The Colorado rules not only permit but promote sales from on-site solar generation to local electric utilities. They specify that Colorado electric utilities, to comply with their Renewable Portfolio Standards, must purchase at least 2 percent of their renewable energy from on-site solar systems. Colo. Rule § 3654(d). The utilities are required to organize competitive solicitations for the purchase of renewable energy from these solar systems, at least twice per year, and they also establish "standard rebate offers" of $2/watt for some kinds of on-site solar systems. Colo. Rule §§ 3655(f) and 3658. To qualify for a standard rebate offer, the applicant must meet a variety of requirements specifying completion dates, size, warranty for service, and maintenance. Colo. Rule § 3658(c).

Unlike Colorado, Wisconsin does not set a "standard rebate offer" that all utilities would be required to offer solar generators in general, nor does it offer anything targeted toward third-party systems. Some financial incentives are available for customer-owned solar installations through Focus on Energy, but systems owned by third parties would not qualify for funding through Focus on Energy.

Finally, we looked at the requirements in California. California has partially deregulated its public utilities. Its requirements describe several relevant exempt categories of third-party electric providers that are not subject to the public utility laws. California law promotes, and directly regulates, third-party solar PPAs for renewable generation.

Subject to certain conditions, California law creates several statutory exemptions to the definition of "electrical corporation" that are relevant here. It exempts:

> [A] corporation or person . . . producing power from other than a conventional power source for the generation of electricity solely for any one or more of the following purposes:
> (1) Its own use or the use of its tenants.
> (2) The use of or sale to not more than two other corporations or persons solely for use on the real property on which the electricity is generated or on real property immediately adjacent thereto . . . .

Cal. Pub. Util. Code § 218(b).

California law also includes specific biodigester and solar exemptions. One exemption concerns "employing digester gas technology for the generation of electricity" for one's own use, the use of not more than two tenants, or the use of or sale to not more than two other corporations or persons solely for use on the property where the electricity is generated. Cal. Pub. Util. Code § 218(d). The solar exemption is for an "independent solar energy producer." Cal. Pub. Util. Code § 218(e). Under California law, an independent solar energy producer is:

> [A] corporation or person employing one or more solar energy systems for the generation of electricity for any one or more of the following purposes:
> (1) Its own use or the use of its tenants.
> (2) The use of, or sale to, not more than two other entities or persons per generation system solely for use on the real property on which the electricity is generated, or on real property immediately adjacent thereto.

Cal. Pub. Util. Code § 2868(b).

An independent solar energy producer can sell renewable energy directly to residential property owners while the producer retains ownership of the solar panels, or the producer can lease solar panels to the property owner. Cal. Pub. Util. Code § 2869(a)(1). Because California's exemption limits sales to not more than two other entities, the practical effect is that third-party providers need to set up new independent business units for each system they install.[1]

Some of the California statutes you cite promote and regulate third-party PPAs by specifying some terms of the relationship between an independent solar energy producer and its residential customers. They allow the producer to set its own price for the sale of energy or the lease of facilities, through a long-term contract. These contracts are not tariffed rates and they are not subject to approval by the California Public Utility Commission. California law also imposes certain requirements upon these contracts, such as specifying that the producer must provide the

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[1] Solar PV Project Financing: Regulatory and Legislative Challenges for Third-Party PPA System Owners, p. 8. Available at http://www.nrel.gov/docs/fy10osti/46723.pdf.

customer with plain language statements of the pricing terms and of the parties' various responsibilities. Cal. Pub. Util. Code § 2869(a)(1)(B) and (C). The producer must also prepare a "Notice of an Independent Solar Energy Producer Contract," which is recorded against the title to the residential property as a means of notifying any potential future buyer of the home that such a contract exists. Cal. Pub. Util. Code § 2869(b) and (c).

In short, California's public utility laws allow entities like a Solar Company or a Biogas Company to exist and to sell renewable energy at retail to their customers, without becoming public utilities. For Wisconsin to follow a similar path, it would first need to create a statutory exemption to the definition of public utility. Additionally, California law sets standards for third-party PPAs between independent solar energy producers and their residential customers. This is something Wisconsin could do through statute or rule, but it would be a secondary step that must follow the creation of a statutory exemption to Wisconsin's definition of public utility.

Most of the other requirements from the seven states you listed deal with net metering and interconnection of independent power facilities. Net metering can occur when someone who is an electric utility customer owns an electric generating facility, which is used for self-generation and for customer-owned generation. "Net metering" is a term that often refers to a situation where, under certain conditions, the electric utility buys power from the customer at the same tariffed rate that the utility sells its own electric power to the customer. Interconnection rules govern what an independent owner of an electric generating unit must do in order to connect to the local utility's electric system. Because the Commission already approves net metering tariffs for electric utilities and already has extensive interconnection rules, these are not new concepts for the state of Wisconsin. They also do not directly relate to third-party PPAs, though whether third-party PPAs are allowed to net meter is a secondary issue that the Commission could address if Wisconsin law is amended to generally permit some category of third-party PPA arrangements. Generators using a third-party PPA arrangement would be subject to Wisconsin's existing interconnection rules.

Potential changes to Wisconsin public utility law

As explained above, a third-party PPA between a Solar Company and a Rooftop Owner or between a Biogas Company and a farmer, for the retail sale of electricity, likely would violate state law because the Solar Company or the Biogas Company cannot operate without a certificate of authority from the Commission. The business models of these companies make them public utilities.

Depending on the particular facts presented to the Commission, an individual third-party PPA may be permissible under Wisconsin law. But I understand you to be interested in creating a new ***category*** of third-party PPAs for renewable energy that would be exempt from the definition of public utility. Such an exempt category could give customers more options for receiving renewable energy and it could encourage the use of renewable energy.

To create this categorical exemption, a change in Wisconsin statutes is needed. If the state Legislature decides to create a categorical exemption, it could be either broad or narrow in scope. Such an exemption could include a variety of renewable energy technologies or it could be limited to a specific energy technology, such as biodigesters or photovoltaic panels. Another significant element of a categorical exemption would be to identify the maximum allowable size of an exempt renewable generator. For example, a third-party PPA could be limited to not exceed the customer's actual load. This would be a narrow, conservative statutory exemption. A broader exemption could cover a larger renewable facility by permitting the facility to sell any additional renewable energy (beyond the amount the customer uses) at wholesale via PPA to the local electric utility, at the utility's applicable tariffed buyback rate.

Below is one example of a statutory amendment that would create a narrow exemption to Wisconsin's definition of public utility:

> SECTION 1. 196.01 (5) (b) 7. of the statutes is created to read:
> 196.01 (5) (b) 7. A person who meets all of the following requirements:
> a. The only electric generating equipment the person owns, operates, manages, or controls is equipment that uses noncombustible renewable energy resources and is located on the premises of members of the public.
> b. The person sells all the power generated by the equipment to the members of the public on whose premises the equipment is located.

Wisconsin Stat. § 196.01(5)(b) is a list of entities that are not public utilities, and this statutory change would add one more exemption to the list. It would apply to a company that owns or operates renewable resource facilities and furnishes electricity at retail to the public, if the company meets specific requirements. The only electric generating equipment that the company could own, operate, manage, or control must be equipment that uses renewable resources; the equipment must be located on the premises of members of the public; and the company must sell all the power that its equipment generates to those members of the public. This is an example of a categorical exemption covering several renewable energy technologies that produce electricity but limiting the size of an exempt facility so it cannot exceed the customer's load.

Note that this exemption only covers "noncombustible" renewable energy. It would not include biodigesters, because electric generation using biodigesters requires combustion of the digester gas. To broaden this exemption so it includes biodigesters, subd. 7.a. would need to be rewritten by striking out the word "noncombustible."

To broaden this categorical exemption further so it allows the company to sell any excess power to the local utility, subd. 7.b. could be rewritten in this manner:

> b. The person sells all the power generated by the equipment either at retail to the members of the public on whose premises the equipment is located, or at wholesale to a public utility.

An exemption to the definition of "public utility" needs to be crafted carefully so it does not unwittingly deregulate too much of the utility industry. In this example, we drafted subd. 7.a. so that existing public utilities remain subject to Commission regulation.

I hope this discussion answers your questions about the use of third-party PPAs to encourage renewable energy production, the relevance of other states' laws, restrictions in Wisconsin's current public utility law, and how to amend state law to permit third-party PPAs for renewable energy. You may be interested to read "*Solar PV Project Financing: Regulatory and Legislative Challenges for Third-Party PPA System Owners,*" a 2010 technical report from the National Renewable Energy Lab, which discusses a few other states' treatment of third-party PPAs. *See* NREL/TP-6A2-46723, which is available at:

http://www.nrel.gov/docs/fy10osti/46723.pdf

If you have other questions please feel free to contact Deborah Erwin, the Commission's Renewable Energy Specialist at (608) 266-3905, or David Ludwig, Deputy General Counsel at (608) 266-5621.

Sincerely,

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