

**Testimony of**

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**before the**

**U.S. House of Representatives Energy and Commerce Committee**

**Subcommittee on Energy**

**Hearing on the Public Utilities Regulatory Policies Act**

Chairman Upton, Ranking Member Rush, and members of the Subcommittee, thank you for the invitation to speak at this important hearing.

My name is Frank Prager, and I am Vice President of Policy and Federal Affairs for Xcel Energy, a public utility holding company serving 3.5 million electric customers and 2 million natural gas customers through four utility subsidiaries. Headquartered in Minneapolis, we serve parts of eight Western and Midwestern states, including the Twin Cities of Minnesota, Denver and the Colorado Front Range, and the Texas Panhandle and Southeastern New Mexico. We have a balanced energy mix that includes natural gas, coal, nuclear and, as I'll discuss in more detail below, renewables.

I am pleased to join you today to talk about our perspective on the Public Utility Regulatory Policies Act of 1978, or PURPA. I speak as a representative of a company dedicated to renewable energy. Xcel Energy has been the number one utility provider of wind energy for a dozen years. We currently have nearly 6,700 MW of wind on our system and are in the process of adding nearly 3,400 MW. Fully 65% of these existing and planned resources are owned by independent power producers. We are also a leading solar provider and expect to add 900MW of solar to our already growing solar portfolio. Through these wind and solar additions, we are decarbonizing our energy generation fleet. We have already reduced carbon dioxide emissions by 30% from 2005 levels and are on track to achieve a 45% reduction by 2021. Our CEO Ben Fowke has recently announced that, with continued advancement in renewable technology and the right public policy, we can achieve at least a 60% reduction in CO<sub>2</sub> emissions by 2030.

Exhibit A provides more information about Xcel Energy and its renewable energy leadership.

This remarkable achievement rests on our company's commitment to renewable energy. However, very little of our growing renewable portfolio arises as a result of PURPA; rather, our renewable portfolio was built largely as a result of state policies designed to encourage renewable development.

As my testimony will discuss, PURPA represents an energy policy from another time and is inconsistent with the realities of today. PURPA was adopted almost 40 years ago to encourage states and utilities to grow domestic energy resources. Today, however, PURPA incentivizes developers to build generation that is not needed and site it in locations where it provides no value to the grid. PURPA thwarts the opportunities of other independent power producers. PURPA also allows developers to circumvent state siting rules and pursue avoided

cost pricing constructs that are contrary to the best interests of utilities' customers, the people who ultimately pay these higher costs in their electric bills.

As detailed below, we are seeing these problems first hand. PURPA threatens to impose higher costs on our customers, disrupt our electricity planning and operations, and impede state energy policies. Ironically, it does so just as the renewable energy marketplace has never been stronger or provided greater opportunity for renewable energy developers who are willing to compete to provide us with the renewable energy we use to serve our customers. In light of its inconsistency with today's electricity marketplace, it is time for Congress to take action to address PURPA's misplaced incentives.

1. Congress passed PURPA in 1978 to address energy issues that no longer exist.

In 1978, during the Carter Administration, Congress passed a series of statutes in response to the Arab oil embargo and the nation's overdependence on foreign energy. PURPA was one of those statutes. It was designed to help the nation achieve energy independence by encouraging the development of small power production and cogeneration facilities. Under Section 210 of PURPA, Congress required electric utilities to purchase power from "qualifying facilities" (QFs). QFs are either cogeneration facilities or small power production facilities that use renewable energy (including solar, wind, biomass or waste) to generate electricity and have a generating capacity of less than 80 MW. Under PURPA, QFs have the legal right to force utilities to purchase their output at a price equal to the avoided cost of electricity.

PURPA was intended to overcome disincentives on the part of the states and utilities to embrace competition. Over at least the last two decades, these disincentives have virtually disappeared as states have embraced policies that promote utilities' use of competition to procure needed

generation resources (both renewable and non-renewables) and as FERC has pursued open access policies that allow independent power producers to transmit energy to utilities—even outside of organized markets.<sup>1</sup> As a consequence, energy market fundamentals have changed dramatically from the situation in 1978. Today:

- We live in an era of relative energy abundance rather than an atmosphere of energy crisis as existed when PURPA was first adopted;
- We also live in an era of energy efficiency where customer energy use is flat or declining despite a growing economy;
- There is a mature independent power production sector, which provides 39% of the energy produced in the country;
- Renewable energy provided 16% of the electricity consumed by Americans in 2016 and is no longer a niche technology requiring forced purchases to remain viable;
- The amount of renewables in the country is only expected to grow, and grow rapidly, as states continue to pursue renewable energy and decarbonization goals.
- There are robust wholesale energy markets throughout much of the country, facilitating market-based acquisition of energy; and
- For utilities operating in states that do not have wholesale markets, most states require utilities to use competitive bidding or least-cost resource planning in the acquisition of energy resources.

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<sup>1</sup> See FERC Order 888, *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities*, Docket No. RM95-8-000 (April 24, 1996)

PURPA was designed to address the long-past energy challenges of the 1970s. However, unlike disco balls or shag carpeting, PURPA has not gone away. As I discuss below, it continues to impose significant, unnecessary burdens on the nation's electricity consumers and the electricity markets.

2. PURPA's must-take provisions incentivize QFs to build generation that is not needed, harming both customers and independent energy developers

PURPA's "must take" provisions distort the function of the electricity markets for both independent power producers and customers. Neither utilities nor state regulators can take steps to anticipate or avoid these consequences: the QF has the ability to appear at any time and force a utility to take its power outside of the state utility planning process. State resource planning is critical to ensuring reliable energy and maintaining reasonable customer bills. States also oversee competitive procurement processes that provide an avenue for independent power producers to obtain competitively priced long-term contracts for their output. The right of a QF under PURPA to force a utility to take its output can interfere with these important state functions.

This interference is especially important with renewable energy. State policies are perhaps the most important drivers of the growth in the nation's renewable energy portfolio.<sup>2</sup> However, the ability of utility systems to integrate renewable energy is neither unlimited nor free, and states' planning processes are the appropriate forum for weighing the benefits of adding renewable energy against the costs of integration.

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<sup>2</sup> In some states, those renewable standards are quite aggressive. For example, the renewable portfolio standards in our Colorado and Minnesota service territories are generally 30% by 2020.

A real-world example illustrates this problem. In Colorado, Xcel Energy is engaged in a resource planning process to fill its customers' energy needs. As part of this process, the Colorado Public Utilities Commission (PUC) is considering how to meet customer energy needs and take advantage of low-priced renewable energy incentivized by federal tax credits.

In 2016, in the midst of that process, a QF developer informed Xcel Energy that it intended to develop 11 solar and eight wind QFs, each with a capacity of 80 MW and "put" the output of those facilities to Xcel Energy's Colorado affiliate, that is, to use PURPA to force Xcel Energy to purchase that output. Although Colorado PUC regulations are clear that QFs must participate in the state resource planning process and can be selected only after winning a competitive bid, this developer demanded that Xcel Energy enter into long-term contracts for power from its contemplated 1,520 MW of QF resources outside of the state processes. Further, the developer demanded that Xcel Energy pay for the energy from its facilities at a price determined by a calculation of avoided cost rather than through a competitive-bidding process. The Colorado PUC denied the developer's demands, and the developer appealed to the federal courts.

Litigation over this developer's proposal is still pending. The developer's claims, however, demonstrate one of the key problems associated with PURPA: utilities can be forced to take energy they do not need and outside of state resource planning and procurement processes. If this developer were to prevail, it would render the state's bid-based procurement process moot; the amount of energy that the developer proposes to put to us far exceeds our customers' incremental energy needs. The proposal would also deny the state of the opportunity to address the potentially significant integration costs associated these intermittent QFs that are necessary to maintaining system reliability.

This developer has attempted to disrupt efficient and effective state resource procurement processes and impose higher costs on customers. Where state-run resource planning and competitive procurement processes exist, the rights to QF puts should be subordinate to the state process. States should be able to identify their own resource policy goals and the types of resources that can best achieve those goals, taking into consideration reliability and cost. Competitive procurement processes will provide a level playing field for all resource types, ensuring that customers do not pay above market for resources simply because they are QFs. Further, competitive processes allow all developers the opportunity to meet our resource needs and do not allow QFs to erect barriers to participation by other developers.

The consequences of unneeded QF development hurt both customers and other independent developers. For independent power producers, energy from an unneeded QF facility can displace energy that a utility might otherwise have procured from an independent generator under contract to the utility. Thus, an independent generator may be unable to realize the full benefits of its energy contract. For customers, unneeded QFs can raise customer costs if: (1) the utility has to pay a curtailment fee to an independent generator for energy the generator was unable to produce due to the QF's output; or (2) the QF energy displaces energy that would have been produced by utility-owned generating resources, forcing customers to pay for the cost of underutilized assets.

3. PURPA can allow QFs to interfere with the efficient operation of the transmission system and wholesale markets.

Transmission planning has developed over the last twenty years as a result of both state law and FERC orders. It creates the backdrop for modern energy markets while ensuring system reliability. Although transmission providers have the responsibility for ensuring that the

transmission system accommodates the needs of load and generating resources, under typical resource procurement processes the cost of transmission required to deliver generator output to customers is taken into account in identifying the most cost-effective resources.

PURPA, however, undermines these processes. Because QFs can force their way onto the electric system at the time and location of their choosing, they can site their facilities in locations where transmission capability may be insufficient to deliver the QF's power to customers. As a result, utilities could be forced to make significant investments in transmission upgrades to enable delivery of QF energy.

The situation with the Colorado developer highlighted above demonstrates this problem. Of the 1,520 MW of wind and solar power that the developer is attempting to put to us in Colorado, 480 MW of that power is proposed for a remote area of the state, hundreds of miles from load centers. In addition, all of the transmission capability in that area is already fully subscribed by five solar facilities that are already under contract. This developer's QF projects could: (1) cause our customers to pay potentially hundreds of millions of dollars in transmission upgrades to deliver the QF's energy; and (2) cause us to curtail the output from the five existing solar facilities already in this area.<sup>3</sup>

In other words, QF siting decisions can also drive added energy costs for customers, yet PURPA does not create incentives for QFs to consider the costs of their siting decisions on customers.

4. PURPA incentivizes QFs to promote avoided cost pricing policies that are not in the best interest of customers

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<sup>3</sup> Indeed, we have experienced situations in Texas where QFs putting to our Texas affiliate have displaced pre-existing resources that were selling to us under contract due to lack of transmission capability.

Rules adopted by FERC to implement PURPA allow QFs to choose whether to be paid on an “as available” basis or pursuant to a long-term contract, with pricing under the long-term contract established as of the day the QF’s ability to put to the utility arises. States have the authority to specify how avoided cost rates are determined for their utility systems.<sup>4</sup>

For a variety of reason, these methodologies can vary from the results achieved in the market. The calculation methodologies can use the wrong proxy for avoided costs (e.g. a higher priced utility resource instead of a lower priced IPP proxy) or make incorrect assumptions regarding the way in which the market would function.<sup>5</sup> As a result of these problems, this calculation methodology can give the QF a price for its power well above the price it could receive from a competitive bid.

Further, under FERC’s rules, avoided cost pricing under a long-term contract must reflect avoided cost at the time the QF establishes the right to put that energy to the host utility. This requirement incentivizes QFs to impose a purchase obligation during time periods when markets are experiencing pricing anomalies. Our Texas utility experienced this problem first hand when a QF attempted to unilaterally impose a put to our utility based on anomalous pricing. After years of litigation at FERC and in state and federal courts, this QF ultimately withdrew its claim. Had we been forced to accede to this QF’s demands, our customers would have paid tens of millions of dollars in excessive costs.

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<sup>4</sup> As I discuss in this testimony, bidding is one of the best ways for a state to determine the avoided cost and set the QF price. However, FERC has issued declaratory orders that have caused uncertainty around the use of bidding. *See See Hydrodynamics Inc.*, 146 FERC ¶ 61,193 (2014) (“*Hydrodynamics*”) and *Windham*.

<sup>5</sup> *See, Regulations Governing Bidding Programs*, Docket No. RM88-5-000, 53 Fed. Reg. 9324 (March 22, 1988) (the “*Bidding NOPR*”).

In addition, siting decisions by QFs that are unmoored from market fundamentals create market risk for customers. In the organized energy markets, it is possible for pricing at a generator's location to become negative. That situation occurs when there is too much generation in a specific location that cannot be moved out to serve load due to transmission constraints. When prices turn negative, generators *pay* to have the system take their output rather than being paid by the system for the energy they deliver to the grid. The intent behind negative prices is to send economic signals to generators both letting generators know where to site (and not to site) new facilities and on an operational basis letting generators know when they should reduce their output to avoid having to pay the market to take their energy.

Unless QFs are exposed to real-time market pricing, they have no incentive to avoid the consequences of siting in a generation pocket and producing energy when prices are negative. If QFs are insulated from the pricing consequences of their decisions, customers bear the risk of negative prices even though neither the utility nor the customers can control the QFs' behavior.<sup>6</sup>

The best mechanism for ensuring that QF avoided cost pricing protects the interest of customers is to require that such pricing be established through competitive market forces, and payment based on prices that reflect the competitive forces within organized markets.

##### 5. FERC rules implementing PURPA incentivize renewable QFs to game the 80 MW QF limit in PURPA

Under PURPA, a renewable energy power production facility can be a QF provided it "has a power production capacity which, together with any other facilities located at the same site (as

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<sup>6</sup> In Texas, as a result of protracted litigation in the 5<sup>th</sup> Circuit Court of Appeals, our Xcel Energy affiliate pays QFs on the basis of market pricing. Without this litigation, our customers would have been subject to significant costs associated with QFs that have chosen to locate their facilities in a pocket that has abundant generation relative to load needs. We calculate that this cost would have been approximately \$5495 per year for every megawatt of QF capacity.

determined by the Commission), is not greater than 80 megawatts.” 16 U. S. C. § 796

(17)(A). Pursuant to this section, FERC adopted the “one-mile rule,” which provides that facilities are considered to be located at the same site as long as generating facilities are located within one mile of one another. Many QFs have attempted to “game” this system to allow them to build larger facilities and force utilities to purchase their output. Wind farm developers use the one-mile rule to shoehorn wind farms that in reality exceed the 80 MW threshold of PURPA into multiple facilities each of which ostensibly meets the 80 MW threshold.

For example, in a case involving our Texas utility, FERC found two segments of a wind project (one 80 MW and one 40 MW) to be separate QF projects because the developer had made certain that no wind turbine from one segment was located within one mile of a turbine from the second segment. FERC made this finding despite the fact that the QF developer had treated the segments as a single project: each segment relied on the same point of interconnection to the transmission grid, was developed by the same entity, and was publicly discussed as a single project. The commonalities of these projects clearly demonstrated that they were in fact a single facility for which turbine spacing had been manipulated in order to allow them to meet the one-mile rule. *See DeWind Novus, LLC*. 139 FERC ¶ 61,201 (2012). *See also Northern Laramie Alliance* 138 FERC ¶ 61,171 (2012).

By its terms, PURPA was supposed to encourage the development of small projects. As this case demonstrates, projects comprised of hundreds of generating turbines with capacities far in excess of 80 MW are gaming FERC’s rules in order to be classified as multiple QFs. These large projects are attempting to circumvent competitive acquisition, and FERC is encouraging them by elevating the form of its arbitrary one-mile rule over the substance of the transaction.

6. PURPA's Section 210(m) exemption should apply to QFs of all sizes

Through a series of orders stretching back more than two decades, FERC has attempted to transform the utility industry. It has created organized RTO and ISO markets that require companies to bring market discipline to wholesale energy transactions. It requires utilities to offer open access transmission and market-based rates. Working with states, FERC has established the framework that created the independent power industry and allowed third-party players the opportunity to develop gas and renewable generating assets that can sell their power to utilities and customers. Along with state initiatives to support renewables, FERC's rules have accomplished most of the goals of the PURPA – a robust IPP industry, market discipline, a diverse power supply and renewable energy development.

In recognition of this fact, and in light of some of the abuses of PURPA I have discussed today, Congress added Section 210(m) to Federal Power Act in the Energy Policy Act of 2005. Section 210(m) authorizes utilities in RTO markets to obtain an exemption from PURPA if the QF has nondiscriminatory access to the market. FERC adopted regulations implementing Section 210(m) that provide a safe harbor for QFs with capacity of less than 20 MW by creating a rebuttable presumption that such QFs do not have nondiscriminatory market access.

While helpful, Section 210(m) is still inadequate: It does not apply to states in the West or South or other states that have not joined organized markets. Further, even in organized markets, FERC's 20 MW safe harbor still allows relatively large resources to avoid the discipline of the market and put their energy to the utility. For example, in Minnesota, FERC upheld the safe harbor protection for an 18-MW hydro facility that serves the needs of over 14,000 homes. The owner of this facility is a large renewable energy developer with the sophistication and resources

to bid the power into the MISO market. However, it sought instead to put the power from the hydro facility to Xcel Energy under PURPA seeking higher avoided cost pricing, and FERC agreed with the QF. In other words, despite Section 210(m), this sophisticated market player sought to use PURPA to force Xcel Energy to purchase its power from a relatively large facility—that had already been participating in the market for years—rather than competing in the MISO wholesale market.<sup>7</sup>

4. Congressional action can help solve the problems of PURPA.

Through this hearing, the 115<sup>th</sup> Congress is taking the first step toward addressing PURPA and its continuing impact on the energy marketplace. We encourage Congress to consider legislation that would help address these problems and improve the efficiency and certainty of the nation's electricity supply process. Here are several options that would solve most or all of the problems created by PURPA:

- Repeal Section 210 of PURPA. As indicated in my testimony, Section 210 of PURPA is a creature of another time, and the principal policy drivers that led to its adoption are no longer in place today. Through its rulemakings, FERC has created robust energy markets, and IPP development opportunities exist largely due to state policies favoring competitive bidding and the development of renewable resources. More importantly, as Xcel Energy's experience indicates, we live in the golden age of renewable energy. QF developers would have plenty of opportunities to develop competitive renewable energy projects even without the PURPA forced purchase requirement. Congress could solve

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<sup>7</sup> Note that since FERC's order allowing it to put to Xcel Energy, the hydro facility has not attempted to execute a contract with us.

PURPA's many problems by simply repealing the provisions of Section 210 of PURPA relating to small power producers.

- Expand the exemptions from PURPA's forced purchase requirement if QFs have reasonable market opportunities. As I discussed in detail above, one of the larger issues with PURPA is that it undermines state resource planning and procurement processes and does not recognize that QF developers have ample opportunities to compete in today's markets. Congress can help address this problem by ensuring that utilities are relieved of the mandatory purchase obligation where: (1) their state regulators undertake a least-cost resource planning or competitive solicitation process or have concluded that the utility does not have a need for the additional energy or capacity from a QF to meet its obligation to serve customers in the public interest; and (2) the utility participates in an independently administered, voluntary, auction-based market, without regard to whether the market is administered by a Regional Transmission Organization or an Independent System Operator.
- Prevent QF abuses of PURPA. Congress may choose to direct FERC to develop rules to prevent abuses of PURPA. Among other things, PURPA reform legislation should: (1) remove the 20 MW safe harbor for QFs imposed under FERC's rules implementing Section 210(m) under EPAct 2005; (2) require unsolicited QFs to bear the costs of transmission upgrades necessary to deliver their output to load; (3) require QFs to bear the cost of negative pricing in wholesale markets; (4) set avoided cost pricing through market forces; and (5) direct FERC to prevent the abuses of the one-mile rule.

Thank you again for the opportunity to be with you today. I would be happy to answer any questions.