



Almost forty years after PURPA's enactment, the energy world is vastly different from where we started in 1978 and a profound transformation is underway across the United States in the way energy is produced and used. Improvements in technology, lower costs of technology, implementation of policies – such as Renewable Portfolio Standards – and customer expectations have all helped drive these changes. Due to these changes, generation from renewable energy resources, such as wind and solar, has increased substantially since PURPA was enacted, and that trend shows no sign of slowing. About half of the new electricity generation capacity added in recent years uses renewable energy sources, and the Energy Information Administration estimates that output from renewable energy will more than triple between 2010 and 2040. We continue adding significant amounts of wind, solar and natural gas as we steadily retire coal-based power plants. One-third of all electricity generated in 2015 came from zero-emitting resources, including nuclear, wind, solar, hydropower and other renewables. Coal's share of total net electricity generation dropped from 50 percent in 2005 to 34 percent in 2015.<sup>1</sup> Oil-fired generation, the original driver of PURPA, has been reduced to just 1% of all U.S. electric generation from 16.5% in 1978.<sup>2</sup>

Section 210 of PURPA requires all electric utilities to purchase electricity at “avoided cost”<sup>3</sup> from qualifying small power producers or qualifying co-generation facilities, referred to as Qualifying Facilities (QFs). QFs in many areas of the country have ample opportunity to bid renewable energy into the market through a competitive bidding process. The Commission's open access transmission and interconnection standards for large and small generators make it possible for a QF to sell its power to multiple buyers, not just the local utility. Due to the increased penetration of renewable resources in the markets, the decreased dependence on fossil fuels, and the evolving market conditions, changes are needed to the Federal Energy Regulatory Commission's (FERC or Commission) rules and regulations that govern PURPA facilities to support these changes. Absent changes to PURPA, customers will pay more for QF-generated energy than for similarly generated renewable energy available in wholesale markets. Under FERC's current implementation of PURPA, utilities' opportunities to make market-based decisions that ensure renewable energy is deployed in the most cost-effective and transparent manner are limited.

Furthermore, the size and scale of these new PURPA projects creates grid congestion at the distribution and transmission levels. QF<sup>4</sup> developers do not approach placement of generation from the holistic perspective that a utility does for system planning purposes. QF developers are not responsible for the safety and reliability of the grid, and therefore, often disregard system

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<sup>1</sup> U.S. Energy Information Administration, <https://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3>

<sup>2</sup> Id.

<sup>3</sup> 18 C.F.R. § 292.101(b)(6) defines “avoided cost” as “the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source.”

<sup>4</sup> Qualified Facilities fall under two categories:

1. A small power production facility is a generating facility of 80 MW or less whose primary energy source is renewable (hydro, wind or solar), biomass, waste, or geothermal resources. See 18 C.F.R. §§ 292.203(a), 292.203(c), 292.204, and 292.207.
2. A cogeneration facility is a generating facility that sequentially produces electricity and another form of useful thermal energy (such as heat or steam) in a way that is more efficient than the separate production of both forms of energy. See 18 C.F.R. §§ 292.203(b), 292.205, and 292.207.

limitations and constraints when locating QF facilities. Although the QF developer may be responsible for the initial system upgrade to accommodate an increase in energy flow, this often results in increased costs to customers to maintain system reliability, while providing little value to the grid.

Since PURPA's enactment, almost forty years ago, the markets have become more competitive and inter-connected. Today, two-thirds of the U.S. population is served by wholesale regional electricity markets run by regional transmission organizations (RTOs) or independent system operators (ISOs) that deliver reliable electricity through competitive market mechanisms. The value of electric energy can now be objectively established by the operation of competitive day-ahead markets and real-time prices for hourly and sub-hourly demand. The existence of electricity markets allows for price discovery – that is, an accurate determination of what a utility would pay for electricity that it does not generate. Even in states without RTOs/ISOs, power prices are based on the cost of providing electricity and reviewed by FERC and state commissions to ensure that they are just, reasonable, and not unduly discriminatory.

In recognition to this move toward greater access, Congress amended PURPA, once, through the Energy Policy Act of 2005 (EPAAct 2005). Under EPAAct 2005, the mandatory purchase requirements of section 210 of PURPA are terminated if FERC finds that a QF has nondiscriminatory access to any of the following markets:

- Independently administered, auction-based day ahead and real time wholesale markets for the sale of electric energy and access to wholesale markets for long-term sales of capacity and electric energy (Day 2 markets); or,
- Transmission and interconnection services provided by a FERC-approved regional transmission entity pursuant to an open access transmission tariff that affords nondiscriminatory treatment to all customers, and competitive wholesale markets that provide a meaningful opportunity to sell capacity and electric energy to buyers other than the utility to which the qualifying facility is interconnected (Day 1 markets); or,
- Wholesale markets for the sale of capacity and electric energy that are, at a minimum, of comparable competitive quality as the markets described above.

Eleven years later after EPAAct 2005, the energy world has transformed itself yet again. Low load growth, low natural gas prices, and the increased use of cost-effective renewable energy sources, require that the rules and regulations implementing PURPA are modernized to reflect the market conditions so that customers are not required to pay for renewable generation at substantially above market costs. The PURPA statute, 16 USC 824-1-3(b), provides two simple directives for purchases of QF power by electric utilities: “the rates for such purchases – 1) shall be just and reasonable to the electric consumers of the electric utility and in the public interest, and 2) shall not discriminate against qualifying cogenerators or qualifying small power producers.” The Commission's regulations, however, are much more prescriptive and given the current evolution of the industry may no longer serve these simple goals. Therefore, EEI proposes the following changes to the Commission's rules and regulations in 18 CFR Part 292 in order to address the changing market conditions, market rules, and market players. The proposed changes discussed herein are intended to update the rules to protect customers and reflect market

conditions, prevent market abuses, and provide greater transparency for QF's under PURPA's mandatory purchase obligation.

#### §292.204 Criteria for qualifying small power production facilities

The Commission sets the maximum size of a facility seeking to qualify as a QF at 80 MW.<sup>5</sup> All QFs owned by the same person or its affiliates and using the same energy resource are considered a single QF project if they are located within one mile of each other.<sup>6</sup> This provision is based on language in the definition of “small power production facility” in the Federal Power Act, which refers to “facilities located at the same site.”<sup>7</sup> However, there is nothing in the statute that prevents FERC from modifying its interpretation of “same site.” The proposed changes to section 292.204, as detailed below, are intended to clarify the Commission's “one-mile rule” and address abuses that are being seen in the marketplace by EEI members.

(a)(2). Method of calculation. (i) For purposes of this paragraph, facilities are considered to be located at the same site as the facility for which qualification is sought if they are located within one mile of the facility for which qualification is sought. ~~and, f~~ For hydroelectric facilities, **facilities are considered to be located at the same site as the facility for which qualification is sought** if they use water from the same impoundment for power generation. **For all other resources, regardless of whether they are located within one mile of other facilities, facilities are considered to be located at the same site as the facility for which qualification is sought if they use the same step-up transformer at the collector substation for deliveries at distribution or transmission voltage.**

**(ii) For facilities located greater than one mile from the facility for which qualification is sought, there is a rebuttable presumption that the facilities are separate facilities for the purposes of qualification. Factors that may be relevant in rebutting the presumption include but are not limited to 1) facilities owned by the same person(s) or its affiliates with sales to the same electric utility, 2) common financing, 3) common land lease or land rights, or, 4) common or concurrent regulatory application(s).**

**(iii)** For Purposes of making the determination in clause (i) the distance between the facilities shall be measured from the electrical generating equipment.

The proposed change to §292.204(a)(2) seeks to provide additional clarity to the rule, similar to the requirements for hydroelectric resources, by providing criteria to evaluate whether QFs are located at the same site. EEI suggests that facilities are considered to be located at the same site if they use the same step-up transformer at the collector substation for deliveries at distribution and transmission. This proposed change helps ensure that artificial distinctions are not made solely to allow a single QF project, of a size that would otherwise preclude a mandatory purchase obligation, to subdivide and create multiple mandatory purchase obligations. This rule clarification helps ensure greater transparency in FERC's interpretation of the “one-

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<sup>5</sup> 18 C.F.R. § 292.204(a)(1).

<sup>6</sup> 18 C.F.R. § 292.201(a)(2)(i).

<sup>7</sup> 16 U.S.C. §796(17)(A)(ii).

mile rule” that has led to the abuses experienced by EEI Members in several regions of the country. This revision, if adopted by the Commission, will benefit all stakeholders in the marketplace.

EEI also proposes to add a new subpart (ii) which seeks to change the irrebuttable presumption to a rebuttable presumption so that electric utilities have an opportunity to reasonably contest situations where gaming is occurring.<sup>8</sup> To date, the Commission has declined to amend this rule, saying that the “one-mile rule” is irrebuttable and cannot be overcome by any evidence of gaming.<sup>9</sup> It is relatively easy for a small power production QF developer to group facilities into separate corporate entities and locate them beyond one mile from each other for the purpose of qualifying for PURPA’s mandatory purchase obligation. The proposed language is meant to address circumstances in which developers structure their projects in order to qualify as a small power producer under PURPA so that these facilities can effectively exceed the 20 MW or 80MW size cap in competitive and vertically integrated markets and receive above-market avoided cost payments. FERC has clearly indicated that it will not allow gaming of the 20MW rebuttable presumption for access to wholesale markets;<sup>10</sup> the same presumption should be afforded to those entities that attempt to game the “one-mile rule” or the 80 MW threshold.

The sole purpose of the proposed change is to allow electric utilities to bring alleged instances of gaming to the Commission’s attention for consideration and resolution before allowing resources to be granted QF status. For example, in Alliant Energy’s IPL service territory, a single QF wind developer has grouped individual wind turbines into 27 separate corporate entities (LLCs) and located them beyond the one-mile limit from each other in order to qualify as an individual QF project under PURPA. The practical result of this deliberate corporate structuring is essentially a single 58-MW project which far exceeds the maximum QF size limit of 20 MW in organized markets.

This behavior and potential gaming of FERC’s “one-mile rule” negatively impacts Alliant Energy’s customers as it distorts the renewable energy markets. Current market-based wind prices in that region of MISO are approximately 25% *lower* than the PURPA contract obligation prices IPL was forced to pay for the same wind power. As a result, PURPA-mandated wind power purchases associated with *just this project* could cost Alliant’s Iowa customers an incremental \$17.54 million above market wind prices over the next 10 years.

#### § 292.302 Availability of electric utility system cost data

The Commission has adopted certain rules and regulations requiring electric utilities to prepare and maintain for public inspection electric utility system cost data as defined in sections 292.302(b)(1) through (d) of the regulations. The purpose of these sections is to make available present and anticipated future avoided cost data of electric energy and capacity to help QFs evaluate the financial feasibility of a cogeneration or small power production project. EEI

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<sup>8</sup> See Appendix 1

<sup>9</sup> See e.g. *Northern Laramie Range Alliance*, 139 FERC ¶61,190, at PP 12, 22 (June 8, 2012); *DeWind Novus, LLC*, 139 FERC ¶61,201, at P25 (June 11, 2012)

<sup>10</sup> *New PURPA Section 201(m) Regulations Applicable to Small Power Production and Cogeneration Facilities*, Final Rule, Docket No. RM06-10-000, Order No. 688 (October 20, 2006) at P 77 (“Order No. 688”).

proposes that additional language be added to subpart (b)(3) to clarify that QFs only get credit for capacity provided to the electric utility in a form that is recognized by the applicable capacity markets.

(b)(3). The estimated capacity costs at completion of the planned capacity additions and planned capacity firm purchases, on the basis of dollars per-kilowatt **unit of capacity and per unit time as such units of capacity and time are used by the applicable electric markets**, and the associated energy costs of each unit, expressed in cents per kilowatt hour. These costs shall be expressed in terms of individual generating units and of individual planned firm purchases.

This clarification helps ensure that QFs have a complete picture of the avoided cost calculation as it clarifies that they will be compensated only for the usable capacity actually provided. For example, MISO provides capacity credit for those generating resources in its footprint on \$/Zonal Resource Credit-Day. Accordingly, QFs residing in the MISO footprint should only receive capacity revenues from their respective utilities, having mandatory purchase obligations, for the amount of capacity the MISO actually accepts from the QF facility on a \$/Zonal Resource Credit-Day.

#### §292.309 Termination of obligation to purchase from qualifying facilities

This section implements the changes made to PURPA by EPAAct 2005. To date, the Commission has determined that the PJM Interconnection, LLC (PJM), New York ISO, ISO New England, MISO, Southwest Power Pool, the Electric Reliability Council of Texas and the California ISO (CAISO) markets meet the standards under §292.309(a) (1),(2) or (3) so that electric utilities that are members of these RTOs and ISOs should be relieved of their mandatory purchase obligation.

However, not all utilities within these markets have been relieved of their PURPA must-purchase obligation. Utilities that do not have relief from the mandatory purchase obligation must purchase power from a QF even if the power is not needed. Accordingly, utilities having large amounts of QF power on their system often must curtail or shut down less expensive generation in order to accommodate higher cost QF generation. QF producers argue that they are entitled to a higher priority because of the must-purchase provisions of PURPA, often at the expense of cheaper generation available to the utility.

EEI proposes the following changes to address changing market conditions and the increasing interconnectedness of the wholesale markets operated by the aforementioned or emerging RTOs and ISOs:

(a)(2)(ii). Competitive wholesale markets that provide a meaningful opportunity to sell capacity, including long-term and short-term sales, and electric energy, including long-term, short-term and real-time sales, to buyers other than the utility to which the qualifying facility ~~is interconnected~~ **would otherwise sell such capacity and electric energy**. In determining whether a meaningful opportunity to sell exists, the Commission shall consider, among other factors, evidence of transactions within the relevant market; or

(d)(1). For purposes of §292.309(a)(1), (2), and (3), there is a rebuttable presumption that a qualifying facility with a capacity at or below 20– [?] megawatts does not have nondiscriminatory access to the market.”

(e) Midwest Independent Transmission System Operator (Midwest ISO), PJM Interconnection, L.L.C. (PJM), ISO New England, Inc. (ISO-NE), and New York Independent System Operator (NYISO) qualify as markets described in § 292.309(a)(1)(i) and (ii), and there is a rebuttable presumption that qualifying facilities ~~with a capacity greater than 20 megawatts~~ have nondiscriminatory access to those markets through Commission-approved open access transmission tariffs and interconnection rules, and that electric utilities that are members of such regional transmission organizations or independent system operators (RTO/ISOs) should be relieved of the obligation to purchase electric energy from the qualifying facilities. A qualifying facility may seek to rebut this presumption by demonstrating, *inter alia*, that:

- (1) The qualifying facility has certain operational characteristics that effectively prevent the qualifying facility's participation in a market; or
- (2) The qualifying facility lacks access to markets due to transmission constraints. The qualifying facility may show that it is located in an area where persistent transmission constraints in effect cause the qualifying facility not to have access to markets outside a persistently congested area to sell the qualifying facility output or capacity.

**(h) For Wholesale Markets, not otherwise listed in this section, the market operator can make a filing under § 205 of the Federal Power Act to demonstrate that the wholesale market meets the criteria outlined in § 292.309(a)(1), (2) or (3) and therefore qualifies for the rebuttable presumption.**

(j) No electric utility shall be required, under this part, to enter into a new contract or obligation to purchase from or sell electric energy to a facility that is not an existing qualifying cogeneration facility unless the facility meets the criteria for new qualifying cogeneration facilities established by the Commission in §292.205.

(i) For purposes of §292.309(h), an “existing qualifying cogeneration facility” is a facility that:

- (1) Was a qualifying cogeneration facility on or before August 8, 2005; or
- (2) Had filed with the Commission a notice of self-certification or self-recertification, or an application for Commission certification, under §292.207 prior to February 2, 2006.

(k) For purposes of §292.309(h), a “new qualifying cogeneration facility” is a facility that satisfies the criteria for qualifying cogeneration facilities pursuant to §292.205.

First, EEI proposes a change to (a)(2)(ii) to recognize that a QF may not be directly interconnected to the electric utility with the obligation to purchase. Many electric utilities have spun off their transmission assets into a transmission affiliate or sold their transmission assets to another unaffiliated entity. As such, the phrase “to which the qualifying facility is interconnected” does not reflect the ownership structure for many electric utilities. The proposed changes seek to clarify that the “opportunity” at issue is the ability to sell energy to entities other

than the electric utility that might otherwise be considered to have the purchase obligation, which may not be the entity that owns the transmission to which the QF interconnects.

Second, EEI proposes to reduce or eliminate the 20 MW threshold in (d)(1) and (e) so that all QFs are presumed to have non-discriminatory access to the RTO/ISO markets absent evidence to the contrary. In Order No. 688, the Commission found that the existence of an open access transmission tariff (OATT) created a rebuttable presumption that QFs over 20 MWs have non-discriminatory access to the relevant wholesale market. For QFs less than 20 MW this presumption does not exist unless the electric utility specifically shows that the QF has non-discriminatory access to the wholesale market. As resource diversity has improved and the markets have evolved, all QFs have access to Day 2 energy and capacity markets. Thus, the special treatment for QFs 20 MW or less is no longer necessary. Currently, under subpart (e), QFs over 20 MW can rebut the presumption that they have access to the market because of operational characteristics or transmission constraints.<sup>11</sup> If the 20 MW threshold is reduced or eliminated, then this rule would also apply to QFs 20 MW or less.

A reduced threshold is also consistent with the RTOs/ISOs and the Commission's recent movement toward allowing smaller resources to participate in wholesale markets. For example, on March 4, 2016, CAISO submitted a tariff filing to facilitate the participation of aggregations of distribution-connected or distributed energy resources that are less than 0.5 MW into CAISO's energy and ancillary services markets.<sup>12</sup> The other RTOs and ISOs have initiated stakeholder processes to examine how smaller resources can participate in the market. In FERC's ongoing proceeding directing the RTOs and ISOs to submit reports on storage, CAISO defines that it allows resources of 0.5 MW, which can represent an aggregation of smaller resources, to participate in its market;<sup>13</sup> in PJM, the minimum requirement for offers to provide capacity, energy or ancillary services is 0.1 MW.<sup>14</sup> In addition, the Commission has addressed the interconnection of small resources in Order No. 792, which updates the *pro forma* Small Generator Interconnection Procedures (SGIP) and Small Generator Interconnection Agreement (SGIA) by increasing access to transmission grid metrics through pre-application reports and allows resources up to 5 MW to qualify for a fast track interconnection process.<sup>15</sup> While Order No. 792 only applies to facilities that are interconnected with the transmission system, FERC orders tend to be guideposts for state standards.

Reducing or eliminating the threshold reflects the changes taking place in the generation landscape and recognizes that small resources now have increased access to the wholesale markets. Given the flexibility of RTO and ISO rules that allow for the non-discriminatory participation of very small resources and the aggregation of even smaller resources in the markets, a 20 MW threshold is no longer appropriate. Rather, all QFs should be assumed to have non-discriminatory access to the markets absent evidence to the contrary.

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<sup>11</sup> 18 CFR §292.309(a)(2)(ii)(c).

<sup>12</sup> *California Independent System Operator Corporation Distributed Energy Resource Provider Initiative*, Docket No. ER16-1085-000 (March 4, 2016)

<sup>13</sup> *Electric Storage Participation in Regions with Organized Wholesale Electric Markets*, Response of the California ISO, Docket No. AD16-20-000 (May 16, 2016) at 10

<sup>14</sup> *Electric Storage Participation in Regions with Organized Wholesale Electric Markets*, Response of PJM Interconnection, LLC, Docket No. AD16-20-000 (May 16, 2016) at 10.

<sup>15</sup> *Small Generator Interconnection Agreements and Procedures*, Docket No. RM13-2-000, Order No. 792 (November 22, 2013) ("Order No. 792").

Third, in recognition of the fact that the wholesale markets are continuing to evolve and grow, as demonstrated by the creation of the Energy Imbalance Market in the West,<sup>16</sup> EEI has added a new (h) to create a process for recognizing new markets that meet the criteria outlined in the statute. The proposed addition puts the impetus on the entity most familiar with the markets - its market operator - to demonstrate to the Commission that it meets one of the three criteria needed to qualify for the rebuttable presumption. The proposal simply provides a process for recognition of new markets; it does not change the electric utility's obligation to make a filing to terminate its specific purchase obligation under § 292.310.

In conclusion, I appreciate the opportunity to participate in this technical conference as it provides a needed forum to discuss important QF-related issues. As the markets evolve, it is important for FERC's rules and regulations to evolve as well. We appreciate the opportunity to provide suggested changes to the Commission's rules and regulations for discussion. The proposed changes to the Commission's rules and regulations seek to highlight areas within the Commission's jurisdiction where change may be appropriate and needed. We hope that the Commission will consider making changes to its rules and regulations to address the concerns discussed herein. We are happy to continue the discussion and to provide additional information at the Commission's request.

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<sup>16</sup> See *e.g.* *California Independent System Operator*, Order Conditionally Accepting Proposed Tariff Revisions to Implement Energy Imbalance Market, Docket No. ER14-2386-000 (June 19, 2014).