

November 6, 2017

Allie Bury
Legislative Clerk
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

Re: Responses to Additional Questions for the Record, *Powering America: Reevaluating PURPA's Objectives and its Effects on Today's Consumers*

Dear Ms. Bury:

Please find enclosed my responses to the questions for the record in connection with my testimony at the September 6, 2017 hearing entitled "*Powering America: Reevaluating PURPA's Objectives and its Effects on Today's Consumers.*"

Thank you and please do not hesitate to contact me if any questions arise.

Sincerely,

/s/ Todd G. Glass

Todd G. Glass

*On behalf of the Solar Energy Industries
Association*

Before The
United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Energy

Responses to Additional Questions following Hearing entitled

“Powering America: Reevaluating PURPA’s Objectives and its Effects on Today’s Consumers”

Submitted by Todd G. Glass, Wilson Sonsini Goodrich & Rosati, P.C.
on behalf of the SOLAR ENERGY INDUSTRIES ASSOCIATION

November 6, 2017

Responses to the Additional Questions for the Record Posed by the Honorable Fred Upton

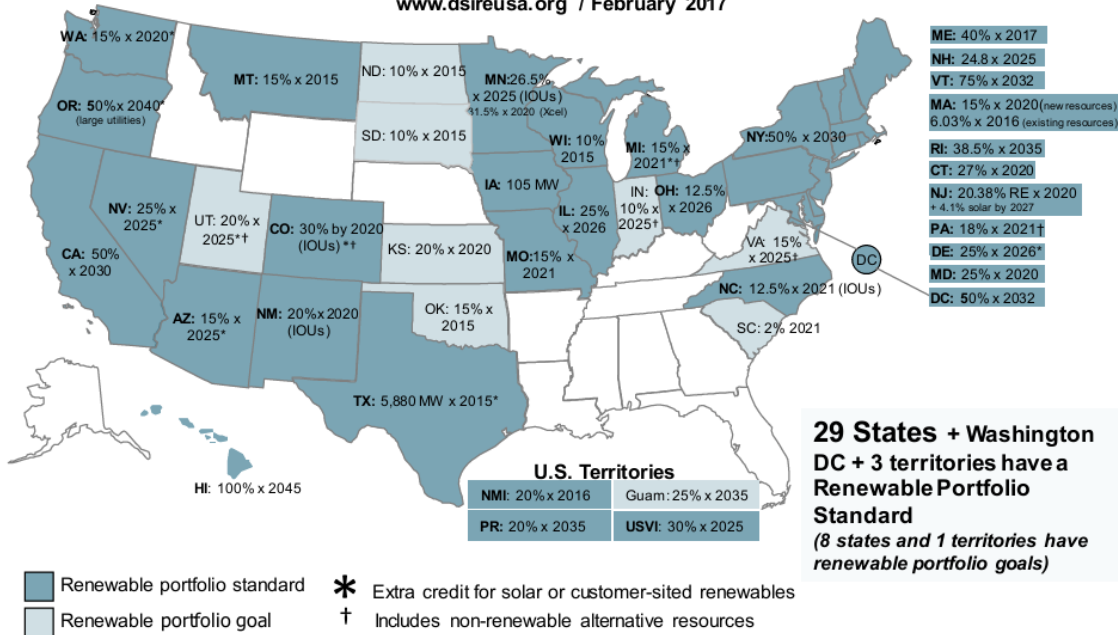
- 1. State policies are driving growth in renewable generation. Renewable Portfolio Standards (RPS), tax credits, competitive procurement requirements, and net metering programs are just a few of them. In light of these more recent pro-renewable policies and mandates (since 1978), do we still need PURPA to drive renewable development?**

Yes; PURPA remains the fundamental federal backstop on utilities’ monopsony power across the United States. In the states where consumers are denied access to competitive electric suppliers and vertically-integrated utilities dominate energy markets, PURPA is the only pathway by which independent entities can deliver alternatives to utility-owned generation. In many of these states, independent power producers using PURPA are able to deliver the type of generation that consumers desire at a price that is at or below the regulated-utility’s cost of generation. As Congress recognized in 1978, if left to choose, utilities would prefer to plan, build, and own their generation assets and not purchase from competitive market players. While such behavior is economically rational, those decisions do not support competition and innovation.

It should be noted that a number of states do not allow for competition in the provision of electricity. In addition, more than 20 states (including Idaho) do not have renewable portfolio standards as shown below:

Renewable Portfolio Standard Policies

www.dsireusa.org / February 2017



As a matter of practical antidote, often times the states that do not have RPS standards are most hostile to independent power producers exercising their rights under PURPA; affirming the need for federal backstop authority to ensure competition in wholesale generation. As Commissioner Raper from Idaho testified, some state commissioners prefer to not have their utilities buy power on a long-term basis from renewable QFs at all, as these states disagree with the Congressional determinations set forth in PURPA that consumers benefit from such competition.

With respect to your specific inquiries: in most cases, competitive procurement programs serve as the implementation vehicle of legislative directive for renewable procurement or integrated resource planning. In practice, a state commission oversees a utility-run solicitation where the purchasing utility creates the solicitation, sets forth the metrics and criteria by which to evaluate competitive proposals, selects the most suitable project from all proposals received (possibly without non-discrimination guarantees), negotiates the contracts, and ultimately make decisions reflective of both shareholder interests and the program's goals. While the existence of such programs reflects an improvement from a utility monopoly control, the result is only as fair as the process by which the solicitation was conducted. Too often small developers often are faced with the untenable choice of either abandoning a project so to preserve the equity balance for a future project or using their limited equity to fund extensive litigation or formal arbitration efforts (which may or may not be successful) against the incumbent utilities which have a deep bench of experienced

professionals and the authority to recover all such legal and expert expenses as part of their rate base before state utility commissions.

Net metering, in contrast, involves designing a rate structure to allow a utility's customers to fund and install on-site generation and then net the generation excess against the customer's consumption. While net-metering is another policy that has encouraged some type of renewable energy development, it does not relate to the utility's purchase of renewable generation from independent power producers and has little effect on projects in excess of 1 MW. The methods by which net metered generation is taken into account for purposes of resource planning or procurement varies by state, with some state commissions not requiring the utility to analyze the impacts of distributed energy resources on utility resource plans.

Despite the existence of state programs, PURPA is an essential piece of federal legislation that backstops competition by ensuring that independent generators will continue to enter the market and put downward pressure on energy prices, while simultaneously supporting the continued legitimate objectives of achieving fuel diversity and enhancing national security.

2. If we set aside PURPA for a moment, do you believe that state policies (including integrated resource planning (IRP), competitive procurement requirements, net metering, and renewable portfolio standards) are stable enough to provide a reliable investment climate for renewable generation?

No. While state policies can incentivize procurement of renewable generation regulation of wholesale generation markets have been the exclusive province of the federal government, as codified in 1935 when Congress enacted Part II of the Federal Power Act. Starting in 1978 with PURPA, and following in the 1992 Energy Policy Act as well as the 2005 Energy Policy Act, the federal government has shown a consistent commitment to bringing competition into the wholesale markets for electric generation and ensuring open access to that market. Given the unique and exclusive federal role ensuring access to liquid and competitive wholesale markets, the state policies do not create the investment climate as much as they can impact the functioning of the federally-regulated markets. Without federal backstop authority for ensuring that independent power producers can compete in the market for wholesale generation, utilities could discriminate against low-cost renewable entrants.

Almost every new generation resource that has been constructed by independent developers over the past twenty years has used a project finance model. PURPA provides crucial legal and regulatory support for these development and project financing efforts. Innovative market participants are motivated to take advantage of the opportunities that each state may use, whether through the legislature or the state utility commission, to enter a market and provide services to consumers at the lowest-possible price. Development, however, is only the first stage of the cycle of market entry.

Once an independent market participant has developed a business model to provide the function or service desired, the market participant then turns to the markets in order to access

debt and equity capital to support construction of the necessary project components. Without access to capital, construction of new generation resources will grind to a halt. As FERC has explained, “in order to be able to evaluate the financial feasibility of a cogeneration or small power production facility, an investor needs to be able to estimate, with reasonable certainty, the expected return on a potential investment before construction of a facility.”¹

While state policies can provide opportunities, standing-alone, the existence of state policies does not provide a stable and reliable foundation to support new entry by independent market participants. Stable and consistent contracting practices at the state level, to which PURPA provides the federal backstop, are necessary to provide a reliable investment climate for independent market participants.

- 3. As it stands now, under Section 292 of FERC’s regulations (18 CFR § 292), the “one-mile rule” is not rebuttable and utilities have little recourse to challenge QF projects that attempt to game this restriction. Should FERC revise its regulations to allow utilities to demonstrate that a QF developer is attempting to split a single large project into multiple smaller ones to receive the benefits of PURPA?**

Due to the technological innovations, favorable economics of creating energy density in solar projects, and engineering design constraints of installing solar projects, the one-mile rule is not as applicable to solar generating sites as it is to wind generating sites. In SEIA’s experience, the one-mile rule strikes the proper balance between encouraging competition and preventing gamesmanship. The existence of a bright-line rule, such as “one-mile” rule, is essential to the development of independent power projects; the alternative in many instances would be an inability to know or to represent to lenders with certainty what the project status was.

As the developers of an independent power project explained to FERC: “We do know one fact: If the Commission rewrites its rules so as to permit such challenges, opponents will be given a blueprint for how to kill numerous qualifying facilities by delay, without regard to the merits. Indeed, this docket is a poster child of the havoc a determined opponent can create, even under the current rules, regardless of the legal merits or the underlying claim, and at very low cost to itself.”² Such a result would be inconsistent with PURPA’s stated purpose to “encourage cogeneration and small power production.”³

¹ See *Small Power Production and Cogeneration Facilities; Regulations Implementing Section 210 of the Public Utility Regulatory Policies Act of 1978*, Order No. 69, FERC Stats. & Regs. ¶ 30,128 at 30,868 (1980).

² See Answer in Opposition by Wasatch Wind Intermountain, LLC to Xcel Energy Services Inc.’s Request for Rehearing at 3, Docket No. EL11-51, *et al.* (Apr. 25, 2012).

³ 16 U.S.C. § 824a-3(a).

For these reasons, Congress reserved the determination of what constitutes a QF to FERC. If Congress gives state commissions the role of patrolling the one mile rule, they could undermine PURPAs' mandates, and create ambiguities that could weaken the investment climate for independent power. Congress should support the bright line determination and maintain FERC's exclusive authority whether a project is properly categorized as a QF.

4. *You testified that QFs are being offered un-financeable contract terms, curtailment practices, discriminatory interconnection processes, and unreasonable avoided cost rates. What is a financeable term in your view? What changes do you want to see and who should make them (Congress or FERC)?*

In FERC's Order No. 69, FERC designed the regulations to implement PURPA, explaining that: "in order to be able to evaluate the financial feasibility of a cogeneration or small power production facility, an investor needs to be able to estimate, with reasonable certainty, the expected return on a potential investment before construction of a facility."

Small renewable projects require significant initial capital outlays upfront (often in the millions to tens of millions of dollars) that are financed and repaid over time, but have low variable O&M costs and lack the fuel cost component of a traditional thermal generator. The period of time required to pay back the financed project costs depends on the revenues from sales of the power produced by the project. The avoided cost, by definition, is a low price relative to other options and thus any financing contracts based on the avoided cost must be of a sufficient term to allow for a full recovery of the project costs. As explained in *The Law and Business of International Project Finance*, "[i]n a power project, a power sales agreement, or power purchase agreement as the purchaser calls it, is the linchpin of an energy project financing. . . . It is from this transaction that the funds flow to pay debt service, operating costs, and an equity return. It must fulfill, therefore, the dual role of financing document and operating document." It is quite simply mathematically impossible to repay the projects' entire costs over a two-, five-, or even ten-year period at an avoided cost rate in almost all areas of the United States. To allow a term less than sufficient to recover the cost of investment undermines the intents of PURPA to encourage independent generation.

Given that PURPA relies on the utility's avoided-cost calculations, a level playing field for competitive generators would establish a contract term that is equal to the utility's depreciation schedule for similar assets. In SEIA's experience, most utilities employ depreciation schedules of approximately twenty years for solar assets, and thus a twenty year term for an independent generator establishes parity. While a twenty year term will provide independent market participants with more attractive financing terms, in SEIA's experience independent power producers have recently been able to access financing for contracts with terms as short as twelve years. Any limitation on QF contract term should be mirrored by limiting the rate recovery schedule for utility's self-built generation.

Together, Congress and FERC should reaffirm that PURPA is a commitment to competition by independent generation. Congress should either itself, or instruct FERC, to establish the minimum terms of a **financeable** QF contract, which should include:

- a. *Financeable Term*: Shorter terms simply do not provide the stability that financial investors require to provide project financing.
 - b. *Fixed Price*: A predictable stream of revenue from the project asset is the fundamental basis of any project financing.
 - c. *Limited, Non-Discriminatory Curtailment*: Curtailment by buyers must be limited to narrow circumstances and must be imposed in a non-discriminatory manner.
 - d. *Equitable Security Requirements*: SEIA members have observed a specific manifestation of this issue: one utility operating in multiple states mandated that the QF accept a development security provision that provided the host utility – *not* the lenders, as is traditional – would be able to seize the project in the event of a default. The utility insisted on the provision, and the developer was forced to abandon the project. In terms of general principles, Congress and FERC should affirm that utilities cannot engage in such unfair trade practices.
 - e. *Equitable Interconnection Practice*: Congress should require that the Commission take an active role in ensuring that incumbent utilities, particularly multi-state utility companies operating outside of an organized market, are not using the interconnection process as a guise to prevent competition from independent market participants. FERC should consider the interaction of a PPA and the interconnection process and, at a minimum, provide the developer with the ability to renegotiate the PPA and/or allow for an expedited dispute resolution process at FERC where a developer believes that a utility is applying the interconnection process in a discriminatory fashion.
- 5. If PURPA was no longer in effect, how do you think it would affect consumer electricity rates and the future development of renewable energy, cogeneration facilities, and waste-to-energy facilities?**

While the discussions concerning PURPA reform have focused on the mandatory purchase obligation, it is essential to note that the other provisions of PURPA provide key exemptions to support capital market financing. Repeal of these exemption provisions could cause substantial disruption for both projects under existing financing arrangements as well as new projects seeking financing.

If PURPA's mandatory purchase obligation was repealed, SEIA believes that the regulatory environment would then allow a reversion to the monopolistic and oligopolistic practices that governed a non-competitive market for wholesale electricity – just as they did before 1978. If PURPA's mandatory purchase obligation was repealed, competition would be significantly disadvantaged if not extinguished, and consumers would not be denied the full benefit of an reliable, resilient grid that utilizes advanced technologies. States and state commissions should not be able to forestall such a result. Indeed, that is why Congress passed PURPA.

Responses to the Additional Questions for the Record Posed by the Honorable Frank Pallone, Jr.

1. As it relates to solar energy procurements for PURPA and non-PURPA contract agreements, how common are long-term contracts exceeding 20 years?

In SEIA's experience, it is not standard to have a contract term exceeding 20 years. Contract terms at 20 years, however, are standard for both PURPA and non-PURPA contract agreements. Some very large solar and other renewable projects have been able to secure 25 year contracts because the capital costs are quite large and the benefits to the buyer in the later years are sufficient to warrant a longer term. Generally, the term of the PPA must be no longer than the economic life of the facility.

2. What benefits do ratepayers receive when utilities enter into fixed-price contracts? How do these benefits compare to the benefits of self-built generation?

Wholesale competition in electricity was initiated and expanded through a succession of federal rules beginning with PURPA. Wholesale competition brings savings to ratepayers through the use of economic dispatch – as each load serving entity accomplishes dispatch based on the estimated incremental (or marginal) costs to run each plant. SEIA calls attention to the often-repeated assertion that PURPA compels utilities to purchase “high cost” or “overpriced” energy. This is false; by definition, the avoided cost-based pricing of PURPA contracts can be no higher than the cost the utility would otherwise pay (*i.e.* the “marginal cost”). Given technological innovations – such as the rapid developments in inverter technologies over the past three years directly attributable to PURPA – solar based energy generation is cost competitive with fossil fuel-based avoided cost calculations.

Purchasing from qualifying facilities under PURPA provides savings, certainty, and places value on consumers preferences and interests. Bringing PURPA projects on-line, at the avoided cost, drives down the system marginal cost and thus reduces the cost to serve both wholesale and retail customers. In addition the ratepayers do not bear any risk for cost overruns in project construction or ongoing operations and maintenance expenses. This should be contrasted to the risk ratepayers bear for utility-owned generation, such as the billions of dollars residents of Georgia will be asked to pay to cover the cost overruns at the Vogtle nuclear plant, the hundreds of millions in coal ash cleanup costs that the residents of North Carolina are being asked to cover, or the ill-fated Shoreham Nuclear facility that Long

Islanders are still paying for today. These types of situations are the same as those in the 1970s that led to Congressional enactment of PURPA.

In addition to cost savings, resiliency, and certainty, PURPA projects provide consumers with choice and access to innovative technologies. The vertical monopoly structure has resulted in little innovation. Today's consumers desire choice in the provision of electricity, and PURPA provides the federal backstop to ensure that every resident across the country can benefit from affordable and reliable renewable generation.

3. How does the solar industry address the interconnection costs that are associated with the QF projects?

In most cases, QFs pay for their interconnection costs under the standard interconnection cost allocation procedures that apply to all interconnecting generators. In some cases, the utilities take on such costs and allocate them to the QF as part of the avoided cost rate. In such cases, a properly computed avoided cost should include all system interconnection costs, with the project developer responsible for paying all costs to connect the generating unit into the utility's transmission or distribution system.

In SEIA's experience, utilities can engage in discriminatory practices because they control the interconnection process. To discourage such discriminatory practices, FERC should prohibit a utility from requiring a QF to either (1) construct, or assume cost responsibility for, any upgrades required for deliverability or (2) purchase long-term transmission from third parties. In addition, the utility should be required to apply the same technical standards for interconnection to both competitive and utility-owned generators.

4. How do you recommend state public utility commissions incorporate QF development into state resource planning?

Not all states have a standardized approach to resource planning, nor does each state require all electric utilities subject to the PURPA-purchase obligation to receive approval for annual integrated resource plans. Each state could benefit from a standardized set of parameters to re-evaluate economic dispatch assumptions given the continued growth of zero marginal cost resources and an increased penetration of generation on the distribution system and behind customer meters. As states evaluate whether system efficiencies (*e.g.* reduced line losses) can be achieved through improved dispatch, a state can ensure that the avoided cost is properly computed. A properly computed avoided cost provides an accurate economic signal to competitive generation providers as to (1) the amount of new generation needed to serve load; and (2) the locational value of the generation.