



## Industrial Energy Consumers of America

*The Voice of the Industrial Energy Consumers*

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November 6, 2017

The Honorable Fred Upton  
Chairman  
Subcommittee on Energy  
Committee on Energy and Commerce  
2183 Rayburn House Office Building  
Washington, DC 20515

The Honorable Bobby Rush  
Ranking Member  
Subcommittee on Energy  
Committee on Energy and Commerce  
2188 Rayburn House Office Building  
Washington, DC 20515

***Re: Responses to Questions Relating to the Hearing “Powering America: Reevaluating PURPA’s Objectives and its Effects on Today’s Consumers”***

Dear Chairman Upton and Ranking Member Rush:

On behalf of Mr. Stephen Thomas, Senior Manager of Energy Contracts at Domtar Paper Company and the Industrial Energy Consumers of America (IECA), we are pleased to provide you with the following responses to your questions.

- 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?**

PURPA, by itself does not “drive” renewable energy. Financial incentives and mandates drive renewable energy.

That said, PURPA is essential to ensuring that non-incumbent renewable energy project developers have non-discriminatory access to the grid, especially in tightly regulated markets. PURPA supports competition among electric generators. And, competition supports lower rates for all consumers.

PURPA simply provides the vehicle for renewable energy projects to connect to the grid and the mechanism that determines how much they get paid. That mechanism is the electric utilities’ “avoided cost”.

Renewable energy projects are paid the “avoided cost” which is determined by the state public service commission. The avoided cost is the same cost as if the incumbent utility builds the generation. If the avoided cost is calculated properly, other consumers will not pay more for the renewable energy electricity. We find large variances from state to state. In our opinion, some states pay too low an avoided cost and too high in others. Importantly, these decisions are made by the state and not at FERC.

**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?**

Yes, for those states that offer a range of options. No, for the states where the regulatory environment is not supportive of renewable energy. The differences can cause clusters of renewable energy generators that can create an uneven distribution of load and generation on the interstate electric grid, thereby making the managing of grid reliability artificially more difficult.

**3. In your testimony, you make clear that industrial QFs are different than intermittent QFs and that those QFs should be curtailed before your manufacturing processes are impacted. What would be your proposal to address this issue?**

To address the curtailment issue, it is important to acknowledge that not all generation resources are similar with regard to reliability, capacity, and total economic impact of curtailment to the electric generator. All three are important factors that should be considered when decisions are made to curtail generation. If a need to curtail generation arises, it is because there is more generation available than needed to meet the instantaneous demand. At this point the price signals in the energy market should have already reduced the thermal generators' output to absolute minimum levels. The remaining generation on the system will be QFs, nuclear, hydro and some natural gas generation. Since it is not practical to curtail hydro or nuclear, the next choices are QFs and the remaining natural gas generation units.

IECA believes that QFs that are small power producers under 80 MW or less should be curtailed before QFs that are CHP/WHR units. This is because the overall impact to the economy will be less as wind and solar electric generating units do not have an entire manufacturing site tied to them. Industrial CHP/WHR facilities are the backbone of the manufacturing facility which provides continuous economic benefits for the communities in which they operate. CHP/WHR helps the manufacturer lower its steam and electricity costs, which improves competitiveness, increases investment and job creation, and may increase exports of the products that are created. In contrast, the overall economic benefits of wind/solar facilities are far less.

Industrial CHP/WHR facilities should only be curtailed if the grid is truly in an emergency situation and the stability of the grid is being threatened. The CHP/WHR facility should only be curtailed down to a net zero export position. CHP/WHR facilities are often located in remote rural locations and can provide much needed voltage support. Therefore CHP/WHR QFs should not be curtailed below a net zero export position.

In the reverse situation where the grid becomes unstable because there is insufficient generation to meet instantaneous demand, CHP/WHR units have the ability to shift their load/generation profile to actually help stabilize system loads to reduce the impact of grid capacity shortfalls. Such assistance from CHP/WHR units would enable the grid operator to avoid triggering cascading blackouts. CHP/WHR units are reliable and run continuously when they are serving a manufacturing facility. The CHP unit is producing steam and electricity that is essential to keeping the associated manufacturing facility operating. If the entire CHP facility is curtailed (and not curtailed only to zero export level), then the entire manufacturing facility will

not be able to operate efficiently and as stated above there will be significant economic harm. The manufacturing facility will incur great financial loss which includes lost production, and operating expenses to shut down and then start-up of the entire manufacturing facility. Hundreds, if not thousands, of employees would not be able to work. These costs are significantly greater than shutting down facilities such as wind and solar, natural gas, or even coal-fired production facilities. CHP/WHR should be the last in the queue to be curtailed right before nuclear and hydro units.

Policies that deal with curtailment need to address the problem of the aggregated unpredictable impact of wind and solar facilities. While there may be several wind and solar facilities in a given region, they are a block of resources that act together with important implications for the grid. This means when the wind is not blowing and/or the sun is not shining, "all" of the turbines in the region are not turning/generating electricity and/or all of the solar panels are not generating electricity. As such, wind and solar facilities have a disproportionate impact. In contrast, CHP/WHR units act alone at the single industrial site where they are installed (i.e. a condition at one CHP/WHR unit will not impact another CHP/WHR unit in the same region).

**4. If PURPA was no longer in effect, how do you think it would affect consumer electricity rates and the future development of renewable energy, co-generation facilities, and waste to energy facilities?**

*For renewable energy*

It depends on the state. In some states, because of high renewable energy subsidies and mandates, renewable energy might be able to out-compete more traditional generation in the short run. In many cases, subsidized renewable energy generation is already contributing to the premature retirement of existing base load generation.

The fear is that once the subsidies end, the newly unsubsidized units will set a price for energy and capacity that is higher than the traditional units that have already been retired. The extra cost then, whether in a market-based or regulated system, gets passed onto end use consumers, including industrial and residential customers.

This could even be exploited by utility investors that actually make higher returns on new, higher priced generation than they do on existing lower-cost traditional generation or fully-capitalized generators that are still reliable and inexpensive energy producers.

*For new CHP/WHR facilities*

Since manufacturing companies are in the business of making products and not power, without the regulatory and non-discriminatory guarantees offered by PURPA, many manufacturing companies would not invest in the capital required to install and operate CHP/WHR facilities.

There would also be other residual impacts as well. In most cases, the energy created by co-generation facilities is a by-product, so the production of no cost or low-cost energy reduces rates for all other customers. And, the distributed nature and high-capacity factor of these generators improves overall grid reliability. Both benefits would potentially be lost to retail consumers.

*For existing CHP/WHR facilities*

Without PURPA, and in regulated markets, with time, and as contract agreements between CHP/WHR facilities and local utilities expire, there will be an incentive for the local utilities to either not renew the agreements or with terms that could substantially increase the costs to the CHP/WHR facility. It is important for policymakers to remember the interconnection is a monopoly and we do not have a choice of going elsewhere for the service of interconnection and standby power at just and reasonable rates. As a result, electric costs to the industrial facility would increase. And, rates to retail electric consumers would likely go up as well. It is critically important that industrial CHP/WHR facilities should have the right to extend their contracts at the utilities' avoided cost.

Sincerely,

Stephen Thomas, PE  
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Domtar Corporation

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President  
Industrial Energy Consumers of America

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*The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with \$1.0 trillion in annual sales, over 3,400 facilities nationwide, and with more than 1.7 million employees worldwide. It is an organization created to promote the interests of manufacturing companies through advocacy and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: chemical, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, brewing, independent oil refining, and cement.*