

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

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| Implementation Issues under the Public Utilities Regulatory Policies Act of 1978 | Docket No. AD16-16-000 |
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**SUPPLEMENTAL COMMENTS OF THE
AMERICAN FOREST & PAPER ASSOCIATION (AF&PA)
AND THE
ELECTRICITY CONSUMERS RESOURCE COUNCIL (ELCON)**

The American Forest & Paper Association (AF&PA) and the Electricity Consumers Resource Council (ELCON) file these Supplemental Comments to provide additional data for the Commission's consideration and specific recommendations for potential changes to the Commission's regulations that address the issues raised in this proceeding without jeopardizing customers' investment in highly efficient cogeneration equipment that facilitates grid resilience. These Supplemental Comments also respond to supplemental comments that were recently filed by other parties.

Combined Heat and Power (CHP or cogeneration) is the process of using one fuel source to produce two forms of energy. In manufacturing, cogeneration is used to produce steam for the industrial process and electricity for use on-site or to be sold in wholesale markets. CHP supports the economic viability and international competitiveness of such steam-driven industrial sectors as agricultural products, building materials, chemicals, food processing, glass, mining, oil & natural gas, paper, packaging, wood products, pharmaceuticals, rubber, steel, and textiles. CHP also enhances grid reliability and resilience. CHP can "island" before, during, and immediately after a crisis—freeing up grid capacity to be used for other load. CHP can help to keep the lights

on during storms.¹ For example, when Hurricane Hugo hit in 1989, a southern utility lost its generation and distribution capabilities. An AF&PA member mill in that utility's service territory kept a boiler and turbine online through the hurricane and had the only electric generation capacity in the area. The mill was prepared and willing to back-feed electricity into the surrounding area, which became unnecessary after the local utility was able to slowly restore service.

The United States currently has about 82 gigawatts (GW) of CHP capacity at over 4,400 industrial and commercial facilities. That capacity represents over 12% of total U.S. energy generation. About 78 percent of the CHP capacity is located at industrial facilities. Industrial cogeneration is a technology that is embedded in an industrial process—it is part of the load. Somewhat ironically, CHP is measured by power capacity (megawatts) – the byproduct of the process – and not by BTUs of steam or thermal energy, which is the main product.

The passage in 1978 of the Public Utility Regulatory Policies Act (PURPA)² marked the first Congressional step toward electricity competition. PURPA created a mechanism to address utilities' reluctance to purchase power from, or sell power to, non-utility generators. Specifically, PURPA Title II enables cogenerators that were certified as Qualifying Facilities (QFs) to sell power on to the grid at a utility's "avoided cost," or what it would have cost the utility to contract or self-supply that energy and capacity.³ PURPA also requires utilities to purchase power from all QFs – cogenerators and small power production facilities (SPPs) – and/or to provide non-discriminatory supplementary, back-up, and maintenance power to these facilities.⁴ PURPA mandated policies to "encourage" QFs. Amendments to PURPA passed in 2005 established a

¹ See, e.g., "Critical Infrastructure and Resiliency Benefits of CHP and CHP Technical Assistance," https://www.2018energyexchange.com/wp-content/tracks/track4/T4S9_Kosanovic.pdf (Attachment 1); CHP Response in Natural Disaster Mitigation: DELIVERING RELIABILITY, SAVING LIVES (Attachment 2).

² 16 U.S.C. § 824a-3; see also 18 C.F.R. § 292.101, *et seq.*

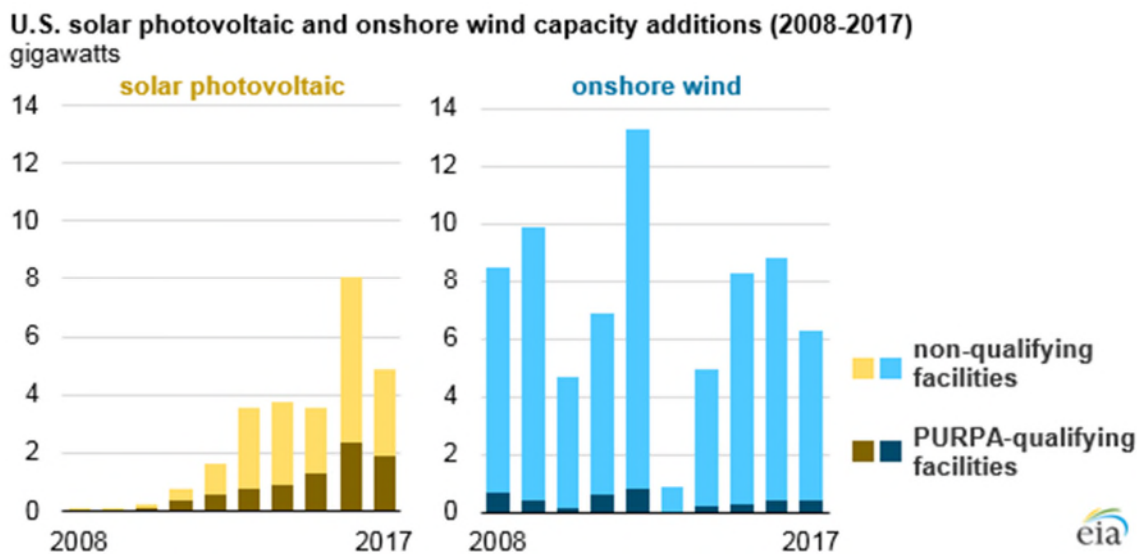
³ 18 C.F.R. §§ 292.303-304.

⁴ 18 C.F.R. §§ 292.303-305.

process that allowed utilities to avoid the power purchase requirement in certain markets deemed competitive, but the amendments did not remove that requirement.⁵

PURPA IS NOT THE CAUSE OF ANY PERCEIVED OVERCAPACITY OF RENEWABLE RESOURCES

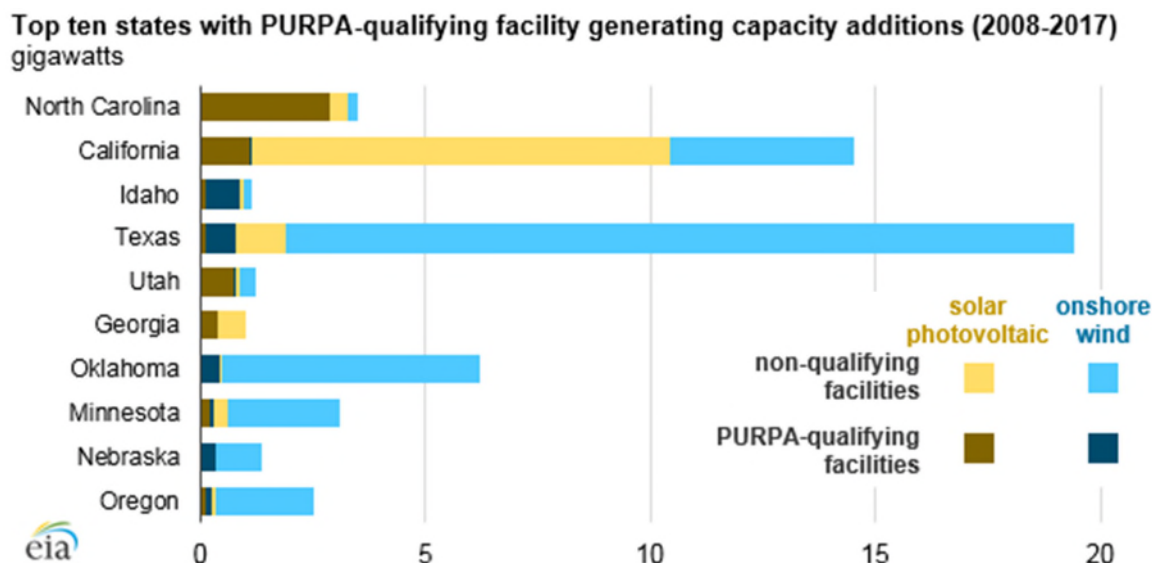
Many comments have pointed to an unprecedented buildout of solar photovoltaic and onshore wind resources as indicative of a problem with PURPA. Comments have claimed that PURPA needs to be "modernized" because a few states have been encumbered by this rapid buildout and have reached a saturation point. The reality is that federally mandated incentives in the form of Production Tax Credits (PTCs) or Investment Tax Credits (ITCs), state renewable energy mandates, technological innovation, and dramatic reductions in the capacity cost of such technologies have stimulated the unprecedented buildout of solar photovoltaic and onshore wind resources. Most of this new solar and wind capacity is not PURPA QF capacity. The vast majority of this new capacity is *not* relying on PURPA to support project financing and interconnection.



⁵ See, e.g., 18 C.F.R. § 292.309.

The graph above, prepared by the Energy Information Administration (EIA), highlights the fact that PURPA QF capacity accounts for a very small percentage of the solar and onshore wind capacity additions from 2008 until 2017.⁶

As described in the graph below (also prepared by EIA), only the outcomes in three states (North Carolina, Idaho, and Utah) suggest that PURPA has made a material contribution to solar and onshore wind buildout. Elsewhere, the PURPA influence is miniscule.



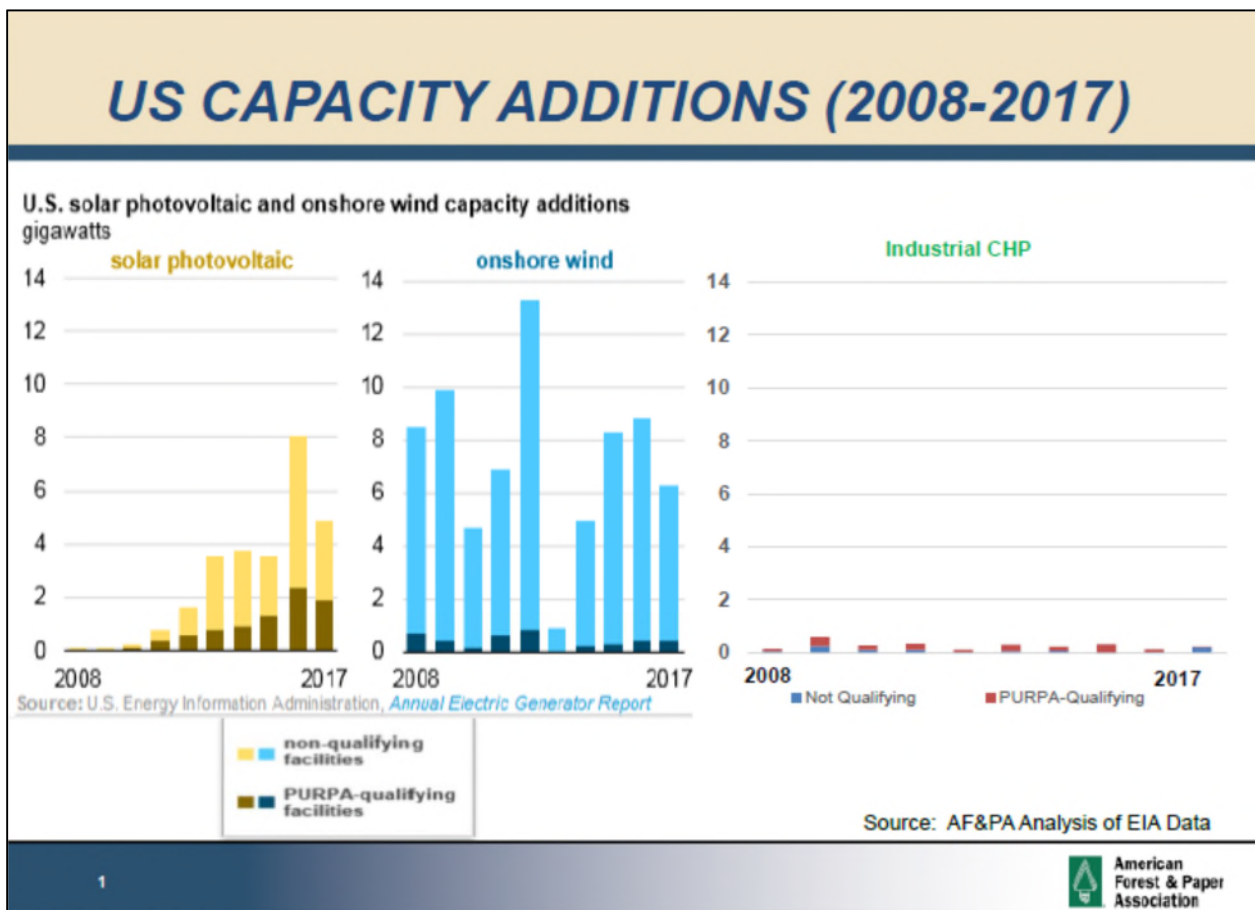
Any problem that may exist with PURPA need only be addressed in those three states and by those three states. Those states have the tools they need to address the issue. To the extent that developers seek to rely on PURPA to the detriment of consumers in other states, those states also presently have the tools they need to address the issue.

INDUSTRIAL CHP DOES NOT CONTRIBUTE TO OVERCAPACITY

Based on EIA data collected through Form 860 submissions, AF&PA performed a similar analysis for industrial CHP as that undertaken by EIA for solar photovoltaic and onshore wind.

⁶ U.S. Energy Information Admin., *PURPA-Qualifying Capacity Increases, but It's Still a Small Portion of Added Renewables* (Aug. 16, 2018), available at <https://www.eia.gov/todayinenergy/detail.php?id=36912&src=email>.

The graph below demonstrates that industrial CHP capacity additions over the same period are miniscule compared to solar and onshore wind capacity additions. Moreover, in contrast to solar and onshore wind, the benefits provided by obtaining QF status are critically important for industrial CHP. While not easily visible from the graph, for the 2008-2017 period, over 67% of industrial CHP capacity additions obtained QF status under PURPA. In fact, for every year other than 2017, at least 57% of CHP capacity additions have been QFs; in 2015, 97% of incremental CHP capacity was QFs.



CHP CONTINUES TO FACE DISCRIMINATORY UTILITY BEHAVIOR

Since its enactment, PURPA has faced unrelenting opposition from utilities. Two Supreme Court challenges reaffirmed QF rights under PURPA: *FERC v. Mississippi*⁷ and *API v. AEP*.⁸ A DC Circuit challenge also had to affirm the definition of "qualifying facility" in *Gulf States v. FERC*.⁹

There have been on-going attempts by utilities and by some regulators to promulgate the following "reforms" to PURPA implementation:

- A variety of utility policies are directed at discouraging manufacturers from developing CHP or renewable energy resources as part of their portfolio of energy management tools – tools used for compliance with any new climate change regulations or to further voluntary greenhouse gas reduction goals.
- Utilities continue to suppress the development of new CHP facilities that are essential for the economic operation of steam-dependent industrial processes. This reflects longstanding utility bias against the best interests of its customers—the utility's core business is capital accumulation to maximize its regulated returns, and CHP dampens the utility's ability to justify rate base additions.
- There are continued attempts to depart from cost of service for regulated services that are needed by manufacturers. Most of these services may not be under the purview of FERC, but nondiscriminatory buyback rates and rates for supplementary, backup and maintenance power are FERC's responsibility under the law.

⁷ *FERC v. Mississippi*, 456 U.S. 742 (1982) (on constitutionality of section 210).

⁸ *Am. Paper Inst., Inc. v. Am. Elec. Power Serv. Corp. et al.*, 461 U.S. 402 (1983) (FERC acted reasonably in setting purchase rates at full avoided costs).

⁹ *Gulf States Utilities Co. v. FERC*, 922 F.2d 873 (D.C. Cir. 1991).

- There are growing attempts to not account for full avoided costs. For example, utilities with known capacity deficits are attempting to eliminate capacity costs from avoided cost calculations.
- There are inconsistencies between a utility's "need" for QF capacity and its own long-term needs as documented in its integrated resource plan (IRP). Part of the problem is the "rate base or buy problem" that is endemic to regulation. Before legitimate QF developers are singled out for blame, state commissioners need to better scrutinize the motives and planning behavior of their jurisdictional utilities to ensure that outright hostility to PURPA did not foreclose a more reliable and least-cost resource mix than a generation addition to rate base.
- There are attempts to shorten the contract terms for certain new or renewing QFs to two or three years from 15 to 20 years. Projects cannot get financed without some degree of long-term PPA pricing certainty. Utilities already receive cost recovery for assets over their lifetimes, often spanning 20 to 40 years. QFs should receive comparable treatment where utility capacity needs exist.
- There are attempts to broaden the scope of the 2005 amendments beyond the intent of the law. For example, there are efforts to eliminate the presumption that QFs under 20 MWs do not have nondiscriminatory access to markets.

These issues are indicative of the barriers that continue to exist to the “encouragement” of industrial CHP. As industrial CHP is often sized to a steam or thermal load, which results in the need to export power, such barriers can damage the prospects for projects.

AF&PA AND ELCON POSITION & RECOMMENDATIONS

PURPA works and is necessary for further encouragement of CHP installation. FERC should not only avoid any changes that would impair CHP viability, but also consider changes that would further encourage CHP implementation, consistent with PURPA's objectives and directives. Joint Commenters' concern is that attempts to address isolated concerns associated with avoided costs in a few states may result in "reforms" imposing collateral damage to the huge existing fleet of industrial QFs with a proven track-record as highly efficient, reliable, and clean energy resources. The Mandatory Purchase Obligation, where applicable, and Supplementary, Backup, and Maintenance Power Services at just and reasonable rates, are as important today than when PURPA was enacted in 1978. The economic viability of industrial QFs is substantially impaired without these essential services. Accordingly, Joint Commenters provide the following recommendations to the Commission and respectfully request that, if the Commission undertakes any revisions to its PURPA regulations, it includes these recommendations among the revisions.

1. FERC Should Continue to Encourage Industrial QFs, Particularly Industrial CHP.

Industrial QFs are fundamentally different from onshore wind and solar facilities. The rapid buildout of wind and solar facilities over the past 10 years is driven by investment in stand-alone, merchant units that are in business exclusively to profit from power sales. In contrast, industrial QFs form an integral part of the manufacturing processes. For example, unlike the CHP commonly used by utilities, most of the CHP processes used in the pulp and paper industry are highly integrated into the manufacturing process. The biomass residuals from the manufacturing process – e.g., bark, spent pulping liquor, sawdust, shavings, and paper residuals that cannot be

used for products – are used as the primary fuel to power the mills.¹⁰ The use of CHP provides energy efficiencies in the range of 50 to 80 percent at forest products mills, far beyond non-CHP electrical stations such as utilities, which are only about 33 percent energy efficient.

Forest products facilities also operate in a highly competitive global market and face fierce international competition. Even though they self-produce two thirds of the energy needed to meet overall demand, they still are energy-intensive, spending \$8.8 billion on purchased energy in 2016, according to census data. For AF&PA members, energy is their third highest cost and they cannot automatically pass on higher raw material and energy costs to their customers and still remain competitive. If FERC revises the PURPA regulations, it should hold industrial QFs harmless (*i.e.*, provide an exemption for CHP from any proposed changes).

As indicated on page 2 herein, industrial QFs are able to operate as islands, thus "freeing up" capacity to be used for other load. Moreover, unlike solar and wind projects, which depend on favorable environmental factors in order to generate and send power to the grid, industrial QFs are self-sufficient and can reliably dispatch power at any time. In recognition of these attributes, FERC should hold harmless all industrial QFs from any modification of the Commission's PURPA regulations.

PURPA (and FERC's implementing regulations) provide that the rates for purchases from QFs shall not discriminate against qualifying cogenerators or qualifying small power producers, but the plain language of the statute and the Commission's implementing regulations do not indicate that such rates may not *differ* between QFs based on their unique characteristics. 16 USC § 824a-3(b); 18 C.F.R. §292.304(a)(1)(ii).¹¹ The Commission's PURPA regulations suggest that

¹⁰ Accordingly, some AF&PA member mills have chosen the option of certifying their CHP facilities as SPP QFs. These facilities still provide the same benefits as any other industrial CHP and should not be treated any differently.

¹¹ The Federal Power Act ("FPA") provides persuasive analogous support for the notion that industrial QFs may be treated differently from solar and wind QFs without such treatment rising to the level of discrimination. The FPA

individual characteristics of QFs (*e.g.*, dispatchability, reliability) may be considered in the avoided cost calculations for purchases of energy produced by QFs, suggesting that different treatment of certain QFs is acceptable. *See* 18 C.F.R. §§ 292.304(c) and (e).

Not only should the Commission ensure that industrial QFs are “held harmless” from any rule modifications, but the Commission may and should take steps to encourage additional industrial QFs, particularly CHPs. Modifications to the rules governing rates for supplementary, backup, and maintenance power should be considered. Industrial QFs are experiencing markedly different rates for supplementary, backup, and maintenance power from utility to utility. Increasingly, such rates are calibrated to impose barriers to the deployment of customer-owned generation, including industrial QFs. While the Commission’s regulations – at 18 CFR § 292.305 – set forth overarching principles that require rates for sales to QFs to be just, reasonable, and non-discriminatory, those mandates are not being followed in practice. Industrial QFs are required to engage in contentious state-level proceedings and in RTO stakeholder forums and related Commission proceedings, in order to ensure just and reasonable outcomes. The Commission should undertake a generic review of its policies and standards governing rates for sales to QFs and, based on the information collected, undertake further necessary revisions to its regulations to better ensure that rates for supplementary, backup, and maintenance power are just and reasonable.

2. FERC Should Provide States Additional Guidance Regarding Avoided Cost Calculations

If the claims that QFs are locking in buyback rates that exceed avoided costs and that the capacity from these resources is not otherwise needed are true, then the “problem” is a failure of state regulators to properly implement PURPA, not a failure of PURPA. As FERC has explained,

indicates that public utilities can provide preferential treatment so long as such treatment is not “undue prejudice or disadvantage” or produces “unreasonable difference[s] in rates.” 16 U.S.C. § 824d(b).

"in order to maximize the incentives for QFs, the Commission sets the price for purchases from QFs, absent negotiations, at the statutory ceiling. Thus, the avoided cost rate is neither more nor less than the price the utility would have paid for comparable power from other sources, including other wholesale sources."¹² The starting point for evaluating the ongoing complaints of utilities about avoided costs under PURPA is the Supreme Court's determinations on the subject. In upholding FERC's full avoided cost rule, the Supreme Court observed that

although FERC recognized that the rule would not directly provide any rate savings to consumers, it reasonably deemed it more important at this time that the rule would provide a significant incentive for the development of cogeneration and small power production, and that ratepayers and the Nation as a whole will benefit from the decreased reliance on scarce fossil fuels and the more efficient use of energy.¹³

We recommend that, if FERC chooses to act, the Commission should provide states with better guidance on avoided cost calculations. Estimating avoided costs is no more challenging than setting customer rates on a forward-looking basis. PURPA and the FERC regulations already prohibit states from using avoided costs as a policy tool to discourage economically viable resources (with rates that are below avoided costs) or to encourage uneconomic resources (with rates that exceed avoided costs). It is time to enforce, not change, PURPA and the FERC regulations. The Commission should limit any PURPA inquiry to narrow, targeted fixes that may warrant review, such as reassessment of the one-mile rule and correction of the over-saturation of renewable qualifying facilities in certain states.¹⁴

¹² *Implementation Issues Under the Public Utility Regulatory Policies Act of 1978*, Docket No. AD16-16-000 FERC (June 7, 2016) (Opening Statement of John P. Hughes, President and CEO of Electric Consumers Resources Council (ELCON)), available at [https://www.ferc.gov/CalendarFiles/20160616092841-Hughes,%20Elcon%2020160607-5216\(31503681\).pdf](https://www.ferc.gov/CalendarFiles/20160616092841-Hughes,%20Elcon%2020160607-5216(31503681).pdf).

¹³ *Am. Paper Inst., Inc. v. Am. Elec. Power Serv. Corp. et al.*, 461 U.S. 402, 415-18 (1983). In the 2005 Amendments to PURPA, Congress expressly declined to change the terms of the Commission's avoided cost rule.

The National Association of Regulatory Utility Commissioners (NARUC) recently issued a white paper, *Aligning PURPA with the Modern Energy Landscape – A Proposal to FERC*, with the following recommendation:

FERC should let competitive mechanisms, whether in regional transmission organizations (RTO) or non-RTO markets, do the work of achieving statutory goals of Public Utility Regulatory Policies Act of 1978 (PURPA), replacing administrative price forecasts that have been the backbone of PURPA compliance in many places.¹⁵

AF&PA and ELCON are strong supporters of market-based solutions in the utility space. Moreover, as ratepayers, our interests are aligned with those of NARUC members, in that AF&PA and ELCON member companies are adversely impacted if utilities are purchasing unneeded power or purchasing needed power at unnecessarily high costs.

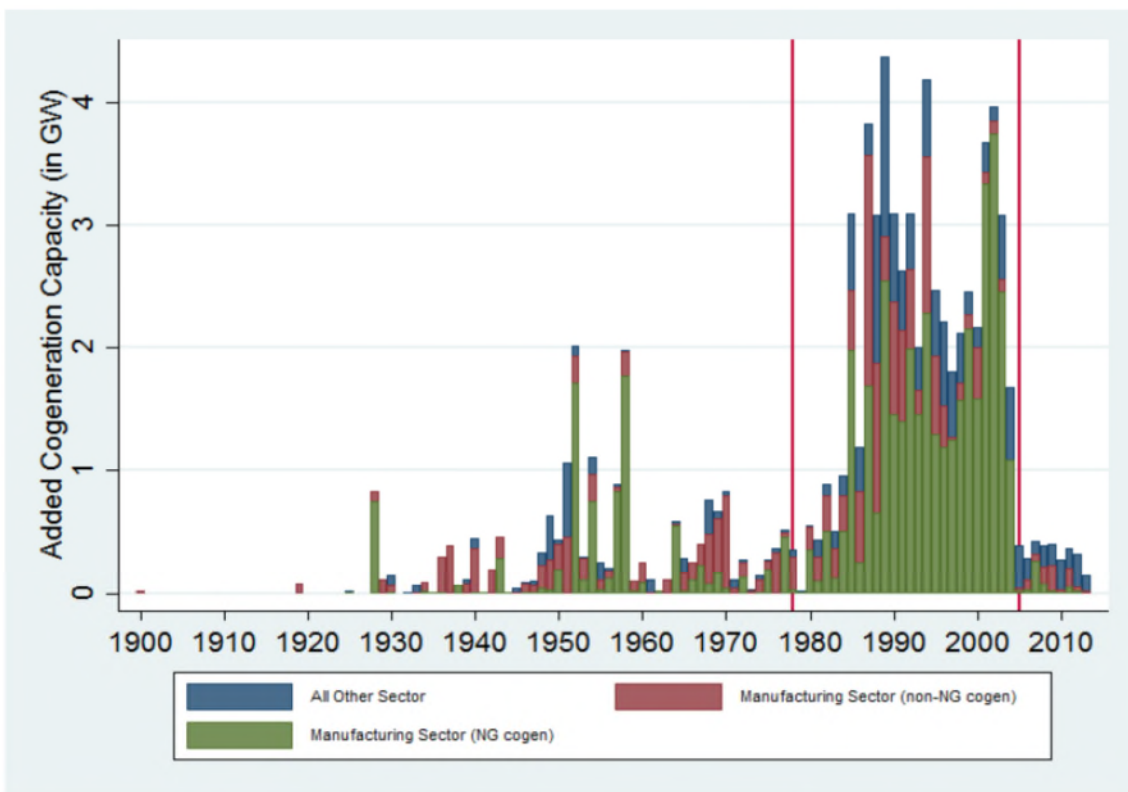
AF&PA and ELCON are concerned, however, that the solution proposed by NARUC is the equivalent of "throwing the baby out with the bathwater." Specifically, NARUC proposes that FERC rely on Subsection 210(m)(C) as authority to relieve a utility (or group of utilities) in non-RTO/ISO markets of the obligation to buy power from QFs if the utilities can demonstrate that the QFs operate in competitive short and long-term markets, as described in the NARUC paper. We strongly question whether such mechanisms can be workable outside the domain of ISOs and RTOs, which was clearly intended by Congress when PURPA Section 210(m) was enacted in 2005. Additionally, as demonstrated by the graph below, favorable PURPA policies adopted after 1978 led to a huge increase in CHP deployment. That stands in stark contrast to the almost immediate huge decrease of new CHP capacity after FERC revised its Section 210(m) regulations following the Energy Policy Act of 2005. That statutory revision, and regulatory implementation,

¹⁵ Travis Kavulla and Jennifer M. Murphy, *Aligning PURPA with the Modern Energy Landscape – A Proposal to FERC*, Nat'l Ass'n of Regulatory Utility Comm'rs 1 (Oct. 11, 2018), available at <https://pubs.naruc.org/pub.cfm?id=E265148B-C5CF-206F-514B-1575A998A847>.

had the effect of allowing any utility in an RTO/ISO market to be relieved of its obligation to purchase power from QFs with a minimal showing to FERC.

Annual Installations of CHP Facilities: 1900-2013

Source: Cogeneration Adoption in the US, Mary Li, Department of Economics, University of Chicago, July 2015



Source: Data from ICF International Combined Heat and Power Installation Database.

While admittedly other factors were involved in the decline of CHP deployment since 2005, the removal of the mandatory purchase obligation was a significant factor and the Commission should not extend similar provisions to markets in the rest of the country. Such a move would run directly counter to the Commission's continuing obligation to encourage CHP deployment. As discussed above, industrial CHP needs additional encouragement; adopting the change

recommended by NARUC would strongly discourage CHP deployment, counter to statutory directives.

Moreover, eliminating the 20 MW threshold for the rebuttable presumption against elimination of the mandatory purchase obligation would detrimentally impact industrial QFs, including SPPs at industrial facilities. The members of AF&PA and ELCON are increasingly diversifying their deployment of Distributed Energy Resources that are QF SPPs at capacity ratings below 20 MWs. These resources typically use biomass, waste, and/or renewable energy and should qualify for Order 688's rebuttable presumption that they do not have nondiscriminatory access to wholesale markets and are eligible to require the electric utility to purchase their electric energy.

3. Limited Modifications To the Commission's Regulations Are Appropriate At This Time.

AF&PA and ELCON continue to support the Commission revisiting its "one-mile rule" as a means of addressing the discreet issues being faced by a handful of states.¹⁶ The intent of PURPA is, among other things, to ensure that new power producers are given a market for selling their output. While PURPA was always meant to incentivize utilities to purchase power from independent suppliers, commenters have stated that solar and wind developers may act in a manner that is inconsistent with PURPA's intent by disaggregating large-scale renewable developments into smaller segments to meet PURPA's size requirements for SPPs.¹⁷ To the extent that this type

¹⁶ FERC's one-mile rule provides that, for purposes of determining whether small power-production facilities seeking QF status are considered to be located "at the same site," FERC will aggregate the capacity of generating facilities that: (1) are located within 1 mile of each other, (2) use the same energy resource (e.g., solar, wind or biomass) and (3) are owned by the same entities. FERC's regulations require the distance between generating facilities for the one-mile rule to be measured "from the electrical generating equipment of each facility." 18 C.F.R. § 292.204.

¹⁷ See, e.g. Gavin Bade, *Renewables developers 'gaming' PURPA should force reforms, utilities tell Congress*, Utility Dive (Sept. 17, 2017), <https://www.utilitydive.com/news/renewables-developers-gaming-purpa-should-force-reforms-utilities-tell-c/504436/>, discussing how, a wind farm that exceeds the size threshold for qualified SPP status under 18 C.F.R. § 292.204 could disaggregate the project into smaller groupings of turbines and place them greater than one mile apart from one another in order to achieve QF status.

of conduct is occurring and is inconsistent with PURPA, FERC could consider amending the one-mile regulation to add other factors (e.g., common ownership, interconnection points, operations, financing, etc.) instead of basing QF project distinction solely on distance.¹⁸

¹⁸ *See id.*

CONCLUSION

For the reasons stated above, and in AF&PA's and ELCON's earlier filings, any modification to the Commission's PURPA regulations should be limited and precise. The record in this proceeding demonstrates that the "problems" associated with PURPA do not implicate industrial QFs. The record shows not only that the Commission should hold harmless all industrial QFs (*i.e.*, provide an exemption for CHP from any proposed changes), but take active steps to encourage industrial QF deployment – particularly industrial CHP deployment – given the stagnation in CHP deployment that has occurred over the past 10 years.

Respectfully submitted,

/s/ Robert A. Weishaar, Jr.

Robert A. Weishaar, Jr.
MCNEES WALLACE & NURICK LLC
1200 G Street NW, Suite 800
Washington, D.C. 20005
Phone: (202) 898-5700
Fax: (717) 260-1765
bweishaar@mcneeslaw.com

Alessandra L. Hylander
MCNEES WALLACE & NURICK LLC
100 Pine Street
P. O. Box 1166
Harrisburg, PA 17108-1166
Phone: (717) 232-8000
Fax: (717) 260-1725
ahylander@mcneeslaw.com

Jerry Schwartz
AMERICAN FOREST & PAPER ASSOCIATION
1101 K Street, Suite 700
Washington, DC 20005
Phone: 202-463-2700
jerry_schwartz@afandpa.org

For American Forest & Paper Association

John P. Hughes
Current President and Chief Executive Officer
ELECTRICITY CONSUMERS RELIABILITY
COUNCIL
1101 K Street, NW, Suite 700
Washington, DC 20005
Phone: 202-682-1390
JHughes@elcon.org

Devin Hartman
Incoming President and Chief Executive Officer
ELECTRICITY CONSUMERS RELIABILITY
COUNCIL
1101 K Street, NW, Suite 700
Washington, DC 20005
Phone: 202-682-1390
DHartman@elcon.org

Charles A. Acquard
Vice President for Government & Public Affairs
ELECTRICITY CONSUMERS RELIABILITY
COUNCIL
1101 K Street, NW, Suite 700
Washington, DC 20005
Phone: 202-682-1390
CAcquard@elcon.org

For Electricity Consumers Resource Council

Dated: November 30, 2018

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused to be served, by electronic mail, the foregoing document upon each person designated on the official service list compiled by the Secretary for this proceeding.

Dated at Washington, DC: November 30, 2018

/s/ Robert A. Weishaar, Jr.

Robert A. Weishaar, Jr.