

Center for Growth and Opportunity at Utah State University
Public Interest Comment on the Federal Energy Regulatory
Commission, Department of Energy proposed rule

Qualifying Facility Rates and Requirements; Implementation Issues Under the Public Utility Regulatory Policies Act of 1978

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Executive Summary

In the proposed rule changes, the Federal Energy Regulatory Commission (FERC) seeks comments on changes to the implementation of the Public Utility Regulatory Policies Act of 1978 (PURPA). Included among the proposals are:

- Expand the current one-mile rule to ten miles;
- Revise the rules that determine which qualifying facilities (QFs) have nondiscriminatory access to electricity markets by lowering the threshold from 20 megawatts to 1 megawatt;
- Allow states to set energy rates for QFs based on locational marginal prices if they are within organized wholesale power markets; and
- Allow states to create “objective and reasonable criteria” for when a QF is entitled to a long-term contract or legally enforceable obligation that a utility purchase its electricity.

In this comment, we evaluate the likely effects of these proposed rule changes on competition in the electricity industry, including the competitiveness of organized wholesale markets. We conclude that the proposed changes fit well within PURPA’s history of expanding competition in electricity markets. If implemented, the changes will likely lead to lower electricity prices and continue PURPA’s legacy of encouraging the development of QFs. PURPA’s implementation should be updated to encourage QFs through competitive solicitations and nondiscriminatory market rules that promote competition.

Specifically, the proposed changes will benefit consumers to the extent that they encourage competition based on best serving electricity customers. To that end, the proposed reforms to PURPA’s implementation move market rules toward competition.

The best available tool for this effort is competitive solicitations in utility resource plans to set avoided cost rates, as is already done in many states. Relying on these solicitations ensures that consumers receive electricity at the lowest possible rates without relying on reportedly outdated avoided cost forecasts.

Changing the one-mile rule, allowing states more flexibility in how they set the rates that QFs receive, and clarifying when QFs are entitled to a requirement that utilities purchase their power, all promote competition in the electricity sector. Ultimately, industry and state-level utility estimates suggest that these changes can save ratepayers billions of dollars over the next five years.

PURPA is an important element of electricity market regulation as it represents a laudable first effort to introduce competition into a heavily regulated industry. FERC’s proposed rule changes will encourage more QFs to enter electricity markets while simultaneously closing loopholes that created incentives for some QFs to serve themselves at the expense of ratepayers. FERC should continue its history of implementing PURPA in ways that encourage competition, and the proposed rule changes are likely to do so.

Introduction: PURPA successfully introduced limited competition into the electricity market

The original intent of the Public Utilities Regulatory Policies Act of 1978 (PURPA) was to introduce competition into the US electricity market.

PURPA played a major role in changing how utilities supplied electricity to consumers. Before the Act, utilities were vertically integrated, meaning they owned both the generating capacity to make electricity and the infrastructure to supply it to consumers. This made it hard for competitors to enter the electricity market because in order to compete with the utilities they had to be given permission from those same utilities to use their distribution networks.

PURPA bypassed this issue by designating Qualifying Facilities, or QFs, which are meant to account for small power producers who could be disadvantaged by the lack of competition in the electricity market. Under PURPA, a facility qualifies as a QF if it has a generating capacity of 80 MW or less (or is defined as a cogeneration facility, meaning it produces electricity along with thermal energy such as heat or steam) and whose primary energy source is renewable. PURPA mandates that a utility must purchase their power from a QF at a predefined “avoided cost” rate for a predetermined period of time, usually 20 years.¹ The avoided cost is an estimate of what the utility would have to spend if they generated the power themselves rather than purchasing it from the QF.

The impetus for the implementation of PURPA came from a variety of sources. Factors including fear of relying on imported fuels, a desire to conserve more resources, and the hope to support a fledgling renewable energy industry all played a part in shaping PURPA.²

In some ways, PURPA did exactly what it was intended to do — incentivize the development of alternative energy production through QFs. In the past decade alone, 45,000 MW of renewable energy have been added to the grid through QFs. Another 24,000 MW are under development.³

Nobel laureate economist Vernon Smith described PURPA as creating a “deregulated fringe” where utilities were required to purchase electricity from small “mom and pop” producers.⁴ In the four decades since PURPA was implemented, however, technology has driven major changes in how energy is produced, distributed, and consumed. As Dr. Smith predicted in 1987, the emergence of alternative energy suppliers has unraveled the need for many regulations surrounding electricity markets.

In particular, this comment points to the value of moving away from using avoided cost estimates and long-term contracts in favor of competitive solicitations for electricity production. PURPA’s current system of long-term contracts at avoided cost rates burdens electricity consumers with unnecessary and uneconomical generation capacity. As some commentators have noted, PURPA’s goal of encouraging wholesale competition in electricity generation is a “work in progress.”⁵

Competitive solicitation processes, in place of avoided cost calculations, provide better signals to investors of where their electricity is most valuable because they reflect more informed estimates of the real-time needs of electricity consumers. Avoided cost calculations set even a few years ago can be expensive com-

1 Yeazel, S. M. (2018). PURPA’s midlife crisis: Will its 40th birthday be one of fundamental change? *The Electricity Journal*, 31(5), 9-21.

2 Dismukes, D. (2019). “The Urgency of PURPA Reform to Assure Ratepayer Protection.” https://www.instituteeforenergyresearch.org/wp-content/uploads/2019/08/purpa-report-2019_df.pdf.

3 As of August 2018, most solar and wind energy developments are not qualifying facilities, so QFs are only a small part of the expansion of renewables. See: <https://www.eia.gov/todayinenergy/detail.php?id=36912>.

4 Smith, V. L. (1987). Currents of competition in electricity markets. *Regulation*, 11, 23. <https://www.cato.org/sites/cato.org/files/serials/files/regulation/1987/7/v11n2-4.pdf>.

5 Speaker materials of Commissioner Travis Kavulla, Montana Public Service Commission, on behalf of NARUC, at the June 29, 2016 PURPA Conference, under Docket Number AD16-16. https://elibrary.ferc.gov/idmws/file_list.asp?document_id=14474494.

pared to electricity generating capacity entering the market today. PURPA's requirements mean that utilities now find themselves unable to give up older, uneconomical contracts in place of cheaper alternatives.

The proposed reforms to PURPA's implementation constitute an important evolution for the 40-year-old Act that will better serve customers and encourage the continued development of renewable qualifying facilities. Specifically, reforming the one-mile rule and opening opportunities to use more competitive solicitation processes in setting avoided cost rates are likely to improve the electricity rates that consumers pay.

Today's technologies and electricity markets are different than the 1978 systems PURPA was designed for

According to many advocates, organizations, and researchers, costs for utility-scale renewable energy have become competitive with coal and natural gas. For example, a report issued earlier this year by the International Renewable Energy Agency stated that 77% of onshore wind and 83% of utility-scale projects due for approval in 2020 will have lower electricity prices than the cheapest fossil fuel-fired generation.⁶ The US Energy Information Administration (EIA) compared multiple cost estimates for solar in 2018 and concluded that the costs are declining though the estimated amount varies.⁷

Coal, the dominant energy source of the 1970s, has been dethroned. Over the past decade alone, coal generation has declined by 40 percent.⁸ Much of this decline is due to increased production from natural gas, which is cheaper and better able to support the emergence of variable, intermittent renewable energy sources than coal power plants.⁹

Together, the growth of natural gas and the potential for cost-competitive renewables represent dramatic changes in US electricity markets. If these trends continue, then FERC's proposed rule changes are likely to reduce the prices that consumers pay for electricity and to encourage the development of renewable generators, in so far as the rule changes introduce greater competition into electricity markets. These rule changes would do so by updating PURPA's implementation to better reflect current markets for electricity generation.

PURPA's implementation should encourage QFs through competitive solicitations and nondiscriminatory market rules that promote competition

Changes to PURPA's implementation should focus on using competitive solicitation methods to set avoided cost rates. In addition, reforming the implementation of both the one-mile rule and long-term purchase power agreement requirements are also promising implementation changes that will promote competition to provide low-cost electricity to consumers.

Replace the one-mile rule with a larger distance

The one-mile rule is a clear example of a rule that could be reformed to better promote consumer welfare and competition. The current rule assumes that all facilities more than one mile apart are separate facilities. Proposed changes would consider facilities within 10 miles of each other as a single QF. This distinction matters because some utilities are concerned that developers are breaking up what would be a single large

6 International Renewable Energy Agency. (2019). "Renewable Power Generation Costs in 2018." <https://irena.org/publications/2019/May/Renewable-power-generation-costs-in-2018>.

7 Energy Information Administration. (2018). "Solar photovoltaic costs are declining, but estimates vary across sources." *Today in Energy*. <https://www.eia.gov/todayinenergy/detail.php?id=35432>.

8 Gruenspecht, Howard. (2019). "The U.S. coal sector." *Brookings Institute*. <https://www.brookings.edu/research/the-u-s-coal-sector/>.

9 Verdolini, E., Vona, F., & Popp, D. (2018). Bridging the gap: Do fast-reacting fossil technologies facilitate renewable energy diffusion?. *Energy Policy*, 116, 242-256.

generation station into multiple smaller stations in order to qualify for PURPA avoided cost rate contracts. Because of PURPA's size limits, there may be an incentive to disaggregate a project into smaller pieces that fit within PURPA's size limits. Moving to a 10-mile designation would likely deter this disaggregation.

Yet, there is limited rigorous evidence of gaming by QFs. Energy law analyst Seth Yeazel's 2018 survey of QF locations in the US only revealed 10 states where developments appear to be gaming the rules.¹⁰ In addition, it appears to largely be wind developments that take advantage of these rules. Yeazel's work suggests most QFs are not strategically disaggregating their facilities in order to certify as a QF under PURPA. Further, his map of QFs enables investigation for additional facilities which may be taking advantage of the one-mile rule.

The attributes of other energy technologies may make such disaggregation uneconomical. For example, a representative from the solar energy industry testified that disaggregation to take advantage of the one-mile rule is not economical for the solar industry because solar installations require more land area than wind installations.¹¹

In addition to Yeazel's documented cases of QFs likely taking advantage of the one-mile rule, multiple anecdotes from state Public Utility Commission (PUC) members claim that energy developers commonly disaggregate their facilities to take advantage of PURPA's existing rules. For example, a member of Idaho's PUC reported that a 150 MW project was split into five separate PURPA projects after the developer lost a bid in the utility solicitation process.¹² As the PUC official told FERC, the "disaggregated project will cost its customers 1.1 billion dollars."

The cases that Yeazel documents and the general consensus from FERC's past conferences on PURPA implementation make reforming the one-mile rule a largely uncontroversial element of the ongoing PURPA reform discussions. Moving the current one-mile rule to a greater distance, such as the proposed ten miles, would help reduce the opportunity for generators to game the system in ways mentioned by PUC Commissioners.

Replace avoided cost calculations with auctions through competitive solicitations

Competitive solicitations should be used to set the rates that QFs receive. The requirement that QFs and utilities must enter long-term purchase and contract requirements should be replaced with a rebuttable presumption of nondiscriminatory access by QFs. The rebuttable presumption of nondiscrimination means that utilities above a certain size are assumed to have nondiscriminatory access to electricity markets, but can contest that if they believe that they face discrimination.

Competitive solicitation is similar to an auction. A utility organizes a request for proposals from electricity suppliers. They then choose the best offerings for electricity among the bids. In practice, this can mean that renewable energy generators are selected over their competitors if they win the bid on price.¹³ A variety of states already use this method or at least use it along with other methods.¹⁴

10 Yeazel, S. M. (2018). PURPA's midlife crisis: Will its 40th birthday be one of fundamental change? *The Electricity Journal*, 31(5), 9-21.

11 Glass, Todd. Powering America: Reevaluating PURPA's Objectives and Its Effects on Today's Consumers Before the Subcomm. on Energy, 115th Cong. 53 (2017). <https://energycommerce.house.gov/committee-activity/hearings/hearing-on-powering-america-reevaluating-purpa-s-objectives-and-its>.

12 Kjellander, Paul. June 29, 2016. Federal Energy Regulatory Commission. "Technical Conference on Implementation Issues Under the Public Utility Regulatory Policies Act of 1978." Docket No. AD16-16-000. Pgs. 34-35. <https://www.ferc.gov/CalendarFiles/20160826133239-Transcript%20-%20062916technical.pdf>.

13 Kavulla, Travis. (2019). "Testimony on behalf of the R Street Institute: Outlook for Energy and Minerals Markets in the 116th Congress." https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=0924805D-08D5-4491-89F2-DFBE06FB5B26.

14 Yeazel, S. M. (2018). PURPA's midlife crisis: Will its 40th birthday be one of fundamental change? *The Electricity Journal*, 31(5), 9-21.

Competitive solicitations are valuable as they reveal the lowest-cost providers of electricity and provide price signals to investors of where they can invest most profitably. Without prices to signal value and need, investments made by utilities or QFs are unlikely to best serve customers and their needs.¹⁵

In contrast to competitive solicitations, avoided cost rates are administratively set and best understood as diligent efforts at a difficult forecasting task. Unlike prices that emerge from a bidding process, avoided cost rates are created by careful calculations by utility officials. In simple terms, avoided costs are forecasts of what the cost to the utility to provide power will be in the next few years. Practitioners point to the nearly impossible task that this forecasting entails and the practical difficulties involved.¹⁶ As Travis Kavulla, a former Montana Public Service Commission member wrote of his experience forecasting avoided costs,

“In determining PURPA rates, I took estimates and projections of nearly a dozen different variables—for example, the price of natural gas, the capital cost of new power plants or the future tax that might be associated with a ton of carbon dioxide emissions—and ran those estimates through a formula, which in turn spit out a number. My colleagues and I then issued a regulatory order, which, with little confidence, was our best estimate of the cost of energy over the next two decades. It is almost needless to say that my projections were almost always wrong.”¹⁷

Kavulla goes on to note that when prices were too low, not enough QFs fulfilled utility needs. When his forecasts were too high, there were too many and a “bonanza of QFs flooded the utility’s doors to take advantage of this generous rate.”¹⁸ Getting the rates just right is a difficult task to set before commissions.

The divergence of administrative cost projections and real market prices is especially stark when existing technologies become more efficient or new technologies disrupt traditional systems. For example, the fracking boom turned energy production in the US on its head when it kicked off in 2007, creating cheap dispatchable energy to offset renewable intermittency issues, displacing coal, and making the US a top exporter of natural gas and oil.

In sum, granting QFs a long-term avoided cost contract may unnecessarily inflate the cost of acquiring electricity, whether from renewables or other sources. As Public Utilities Commission of Oregon Chair Megan Decker said, “avoided costs are hard to keep relevant.”¹⁹

In addition to being difficult and inaccurate, long-term avoided cost contracts, or power purchase agreements (PPAs), set rates for several years, sometimes decades.²⁰ As electricity market conditions change, however, a rate set even a few years before may be uneconomical compared to current offerings by electricity suppliers. Perhaps in the first years of PURPA’s existence FERC’s responsibility to encourage QFs justified providing and guaranteeing high rates for electricity provided by QFs for long periods of time.

15 Hogan, W. W. (2019). Market Design Practices: Which Ones Are Best?[In My View]. *IEEE Power and Energy Magazine*, 17(1), 100-104; Wolak, F. A. (2019). The Role of Efficient Pricing in Enabling a Low-Carbon Electricity Sector. *Economics of Energy & Environmental Policy*, 8(2). DOI: 10.5547/2160-5890.8.2.fwol; Hayek, F. A. (1945). The use of knowledge in society. *The American Economic Review*, 35(4), 519-530.

16 Speaker materials of Commissioner Travis Kavulla, Montana Public Service Commission, on behalf of NARUC, at the June 29, 2016 PURPA Conference, under Docket Number AD16-16. https://elibrary.ferc.gov/idmws/file_list.asp?document_id=14474494; Kavulla, Travis. (2019). “Testimony on behalf of the R Street Institute: Outlook for Energy and Minerals Markets in the 116th Congress.” https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=0924805D-08D5-4491-89F2-DFBE06FB5B26.

17 Kavulla, Travis. (2019). “Testimony on behalf of the R Street Institute: Outlook for Energy and Minerals Markets in the 116th Congress.” https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=0924805D-08D5-4491-89F2-DFBE06FB5B26.

18 Kavulla, Travis. (2019). “Testimony on behalf of the R Street Institute: Outlook for Energy and Minerals Markets in the 116th Congress.” https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=0924805D-08D5-4491-89F2-DFBE06FB5B26.

19 Morehouse, C. (2019, November 26). Inside the fight to overhaul PURPA: What three commissioners think of FERC’s proposed changes. *Utility Dive*. <https://www.utilitydive.com/news/inside-the-fight-to-overhaul-purpa-what-three-commissioners-think-of-ferc/568056/>.

20 Yeazel, S. M. (2018). PURPA’s midlife crisis: Will its 40th birthday be one of fundamental change?. *The Electricity Journal*, 31(5), 9-21.

As renewable energy is reportedly becoming more cost-competitive with other sources, it is unlikely that today's QFs need long-term rates to generate the payback periods required to attract investment.²¹ In fact, renewable energy projects, along with natural gas, have been linked to falling wholesale energy costs in research by the Electricity markets & Policy Group at Berkeley Lab.²² The existing evidence from wholesale markets combined with claims from within the industry that prices are falling justify removing or limiting the mandatory purchase contracts and large avoided cost payments that PURPA involves.

In lieu of relying on uncertain projections from administrators, some states are relying on competitive solicitation. Almost half of states, 40%, use a purely administratively determined avoided cost rate. Only 20% use only competitive solicitation. Together, however, 60% use competitive solicitation with a mix of avoided cost calculation methods.²³ The proposed rule changes give states more latitude to use competitive solicitations in complying with PURPA, which should result in prices for consumers that more accurately reflect market costs for electricity.

Encourage QFs through competitive solicitations for electricity supply

FERC should encourage QFs by creating market rules that ensure nondiscriminatory access to electricity markets. Instead of long-term PPAs, QFs should compete in markets through competitive solicitations by utilities. This approach fulfills FERC's responsibility under Section 210 and intertwines its encouragement of QFs with its responsibility to keep rates equitable and affordable for ratepayers.

Some parties argue that removing the requirement for long-term contracts could frustrate QF development, and may even violate FERC's statutory requirement in Section 210 to encourage the development of QFs.²⁴ While long-term PPAs are one way of encouraging QFs by paying them guaranteed above-market rates, it is not the only form of encouragement available. Requiring long-term contracts also jeopardizes other purposes of PURPA, such as ensuring equitable rates.

The alternative existing approach of competitive solicitation can replace administrative calculations of avoided costs. Further, FERC's proposed rule changes do not prohibit long-term agreements if state PUCs view them as important. The rule change merely recognizes alternative means of encouraging QFs rather than long-term contracts at avoided cost rates.

Intertwining supporting QFs with a concern for equitable customer rates is important as both goals are FERC's responsibilities. They are also necessarily tied together. For example, the high prices of avoided cost contracts discourage the purchase of power from QFs and increase electricity rates for customers. Implementing competitive solicitations from low-cost QFs promotes the emergence of QFs and ensures consumers pay lower energy costs.

Although QFs over 20 MW are assumed to have nondiscriminatory access to electricity markets, that may not always be the case. Facilities may be denied access to markets because utilities may prefer their own generating sources, among other reasons. Given this possibility, QFs should have the ability to contest their designation as having nondiscriminatory access to the market. QFs should be able to argue that utilities or market rules discriminate against them and deny them access to the market. Although outside of the scope of our comment, such considerations could include whether or not utilities need additional capacity that QFs are selling, the likely effects of the QF on electricity rates, and other evidence of dis-

21 Whether or not renewable energy projects are cheaper now than fossil fuel projects is complicated by the web of subsidies and price supports that the technologies receive. There is, however, growing evidence that renewable energy sources can compete with other generators on price.

22 Mills, A. D., Millstein, D., Wiser, R. H., Seel, J., Carvalho, J. P., Jeong, S., & Gorman, W. (2019). Impact of Wind, Solar, and Other Factors on Wholesale Power Prices: An Historical Analysis—2008 through 2017. Lawrence Berkeley Lab. http://eta-publications.lbl.gov/sites/default/files/lbnl_-_wind_and_solar_impacts_on_wholesale_prices_approved.pdf

23 Yeazel, S. M. (2018). PURPA's midlife crisis: Will its 40th birthday be one of fundamental change? *The Electricity Journal*, 31(5), 9-21.

24 Glick, Richard. (2019). "Dissent in Part of Commissioner Richard Glick Regarding FERC's Notice of Proposed Rulemaking to Update PURPA Regulations." Federal Energy Regulatory Commission. <https://www.ferc.gov/media/statements-speeches/glick/2019/09-19-19-glick-E-1.asp#12>.

criminary access that QFs present. This procedure constitutes a check on the rule change and concerns that it will reduce or prevent meaningful competition between utilities and QFs.

Discriminatory access is unlikely to be a widespread barrier for QFs, but in situations where it might be there are existing rules to prevent discrimination. Within organized wholesale energy markets even critics of FERC's proposed rules generally agree that electricity suppliers are likely to have nondiscriminatory access.²⁵ For a separate example, open access transmission tariffs (OATT) represent one form of existing regulation that prevent discrimination against QFs by creating rules for transmission services.²⁶ And many states outside of organized markets use competitive solicitations, such as Colorado. In states using competitive solicitation processes, nondiscrimination rules should be enforced to ensure that the solicitations are competitive and that no providers receive preferential treatment. Finally, most customers are already served by deregulated markets, and even outside of those marketplaces utilities must provide OATTs overseen by FERC.

The concerns about nondiscriminatory access to electricity markets are best resolved by implementing competitive processes. In concrete terms, the Section 210 responsibility to promote QFs should be interpreted to mean that FERC must encourage QFs in order to meet the needs of electrical consumers, not a requirement that FERC encourage QFs at any cost. In any case, facilities should not be encouraged to act in ways that raise electricity rates for consumers, and there is increasing evidence that PURPA's existing rules are expensive and may contribute to inequitable electricity rates that are not in the public interest.

Current PURPA rules likely cost electricity consumers billions

Current PURPA implementation can lead to unnecessary and uneconomical projects that are more expensive than those available through market bidding, thus adding up to substantial costs for consumers.

Although there are no academic estimates of the costs of PURPA projects, utility-supported estimates suggest that the lifetime costs of PURPA projects are between \$1.05 billion and \$1.87 billion for solar QFs and \$1.65 billion and \$1.99 billion for wind QFs.²⁷ In addition, Louisiana State University's David Dismukes suggests that from 2012 to 2017 that PURPA cost consumers an average of about \$468 million each year. That is a total of \$2.3 billion over the five-year period that Dr. Dismukes examined.²⁸ These estimates complement the real world examples of billion dollar expenses from state PUC members where QFs are disaggregated or uneconomical contracts must be maintained.²⁹

The two sources of PURPA costs both stem from current implementation practices

The costs of failing to reform PURPA stem from two sources. First, administrative avoided cost estimates make the price per unit of electricity more expensive than comparable projects available through bidding.

25 The concerns in Commissioner Glick's dissent to issuing the proposed rule changes center on areas outside of organized wholesale markets. Yet even in these areas, some states use competitive solicitations and so still have access through the solicitation process and open access transmission tariffs. Glick, Richard. (2019). "Dissent in Part of Commissioner Richard Glick Regarding FERC's Notice of Proposed Rulemaking to Update PURPA Regulations." Federal Energy Regulatory Commission. <https://www.ferc.gov/media/statements-speeches/glick/2019/09-19-19-glick-E-1.asp#12>.

26 "The Federal Energy Regulatory Commission's Open Access Rule." National Research Council. 1996. *Competition in the Electric Industry: Emerging Issues, Opportunities, and Risks for Facility Operators*. Washington, DC: The National Academies Press. DOI: 10.17226/5482. <https://www.nap.edu/read/5482/chapter/3>; Eisen, J. B. (2014). An open access distribution tariff: Removing barriers to innovation on the smart grid. *UCLA Law Review*, 61(6), 1712-1771.

27 Nicholson, Emma. and Michael Kagan. (2019). Concentric Energy Advisors. "An empirical analysis of avoided cost rates for solar and wind QFs under PURPA." <https://ceadvisors.com/wp-content/uploads/2019/11/An-Empirical-Analysis-of-Avoided-Cost-Rates-for-Solar-and-Wind-QFs-Under-PURPA.pdf>.

28 Dismukes, D. (2019). "The Urgency of PURPA Reform to Assure Ratepayer Protection." https://www.instituteforenergyresearch.org/wp-content/uploads/2019/08/purpa-report-2019_df.pdf.

29 Kjellander, Paul. June 29, 2016. Federal Energy Regulatory Commission. "Technical Conference on Implementation Issues Under the Public Utility Regulatory Policies Act of 1978." Docket No. AD16-16-000. Pgs. 34-35. <https://www.ferc.gov/CalendarFiles/20160826133239-Transcript%20-%20062916technical.pdf>.

Second, QFs often secure long-term purchase agreements that require utilities to buy power that they may not need.³⁰ Examples from Colorado, Idaho, and Oregon illustrate these two sources of concern.

In Colorado, after lower bids were approved in the utility's competitive solicitation process, a losing developer sued under PURPA to require that the utility take its electricity at the higher avoided cost rates.³¹ Here, PURPA's requirement that utilities purchase QF power is clearly not serving customers or promoting the development of renewable energy.

In the second case, a member of Idaho's Public Utility Commission pointed to a case where six PURPA projects for six solar plants that represent a total of 60 MW were approved by Oregon's commission. These facilities were located within Oregon's borders but served by Idaho Power. In the territory where the projects were approved the average total load is only 98 MW. As Idaho's PUC official concludes, it is unlikely that this power was needed.³²

Adding to the concerns about whether or not the power was necessary to serve this area of Oregon, Idaho's PUC commissioner reported that much of the problem stems from disaggregation. He pointed to several similarities between the projects, such as, "the same operation dates, the same project size, the same terms and payment conditions, the same developer and the same solar panel manufacturers." As the Commissioner goes on to note, the costs of those projects will be rate-based and Idaho Power's customers will pay for 95% of their costs, which will be about one billion dollars.³³

Concerns about the proposed rule changes should be solved through competition, not regulation

The central concern about FERC's proposed rule changes for PURPA is the question of how to prevent discrimination by utilities against their competitors.

Specific instances of this concern include how the proposed rule changes comply with FERC's Section 210 requirement to encourage the development of QFs. For example, removing current requirements for long-term, fixed-price contracts raises questions about how QFs will obtain financing. Another issue is whether QFs will receive nondiscriminatory rates. Both of these concerns Commissioner Richard Glick points to in his dissent regarding the proposed rule changes to PURPA.³⁴

PURPA represents the first introduction of competition to the monopoly-regulation model. As such, it is reasonable to consider concerns about maintaining that competition when discussing changes to PURPA's implementation. For example, it makes little sense for utilities to purchase power from outside sources if they can instead build and manage the resources themselves. Building and maintaining their own projects allows utilities to rate base the costs of those projects and can mean greater returns for their stakeholders or investors. These incentives provide economic justification for some reticence in embracing QFs, from the utility's perspective. Commissioner Glick rightly makes this point in his dissent to issuing the pro-

30 Dismukes, D. (2019). "The Urgency of PURPA Reform to Assure Ratepayer Protection." https://www.instituteforenergyresearch.org/wp-content/uploads/2019/08/purpa-report-2019_df.pdf.

31 Kavulla, Travis. (2019). "Testimony on behalf of the R Street Institute: Outlook for Energy and Minerals Markets in the 116th Congress." https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=0924805D-08D5-4491-89F2-DFBE06FB5B26.

32 Kjellander, Paul. June 29, 2016. Federal Energy Regulatory Commission. "Technical Conference on Implementation Issues Under the Public Utility Regulatory Policies Act of 1978." Docket No. AD16-16-000. Pgs. 34-35. <https://www.ferc.gov/CalendarFiles/20160826133239-Transcript%20-%20062916technical.pdf>.

33 Kjellander, Paul. June 29, 2016. Federal Energy Regulatory Commission. "Technical Conference on Implementation Issues Under the Public Utility Regulatory Policies Act of 1978." Docket No. AD16-16-000. Pgs. 34-35. <https://www.ferc.gov/CalendarFiles/20160826133239-Transcript%20-%20062916technical.pdf>.

34 Glick, Richard. (2019). "Dissent in Part of Commissioner Richard Glick Regarding FERC's Notice of Proposed Rulemaking to Update PURPA Regulations." Federal Energy Regulatory Commission. <https://www.ferc.gov/media/statements-speeches/glick/2019/09-19-19-glick-E-1.asp#12>.

posed rule changes.³⁵ As he notes, in areas with vertically integrated utilities that “almost always receive guaranteed cost-recovery on its generation investments” there is a risk that altering PURPA’s implementation may reduce competition.

There is a tension in Commissioner Glick’s dissent, however. First, he points out that state regulators do not hold their utility’s feet to the fire, “Indeed, state regulators will often effectively pre-approve certain incumbent utility investments through those utilities’ integrated resource plans, making it highly unlikely that the utility investments will ultimately be disallowed as imprudent.” Second, he mentions that competitive markets do not exist throughout the US and so QFs may be forced to rely on a “synthetic measure of what spot prices would be in a competitive market based on gas prices and heat rates.”³⁶

Both points here relate to a fundamental problem in electricity regulation: a lack of competition. Commissioner Glick is right that both a reliance on administratively created prices through avoided cost methodologies and an unwillingness to require that utilities justify their capital investments in generation technologies frustrate price discovery by muting price signals to investors.³⁷

Utility integrated resource planning and state-level practices should be rigorous reviews and not rubber stamps. Unfortunately, current market structures necessitate pathways for QFs to challenge their designation as having nondiscriminatory access to electricity markets as long as resource planning is done through a central plan with a utility. A utility may prefer building its own generating capacity than to buy from competitors on the market even if competitive procurement is least-cost, so it may be worth considering how a QF can challenge a utility’s decisions to build instead of buy electricity.

Glick’s concern is presaged in Vernon Smith’s early comments on PURPA in 1987. There Dr. Smith pointed to the need for the deregulated fringe providers because state regulators were hesitant to approve adding generation capacity to the rate bases.³⁸ If there are no longer similar pressures on utilities by state regulators, or if the pressures are insufficient, then it is the average person paying their electricity bill who covers the costs of unnecessary QF purchases forced by PURPA’s current implementation.

The proposed rule changes to 1) avoided cost calculations 2) the one-mile rule, and 3) the purchase power agreement contract structures between QFs and utilities are likely to promote competition. These kinds of changes to PURPA will make consumers better off by cutting the costs of electricity and removing opportunities for QFs to take advantage of market rules.

The best way to serve consumers is to use competitive solicitations and existing electricity markets to set prices. These solicitations will reveal low-cost providers without favoring utility-owned generation over QFs. As a result, consumers will avoid being burdened with expensive, long-term contracts.

The use of competitive solicitations is also the best way to fulfill Section 210’s requirement that FERC encourage the development of QFs and will continue to support the growth of renewable energy in the US.

FERC should continue implementing PURPA in ways that encourage competition

PURPA is an important element of electricity market regulation as it represents a laudable first effort to introduce competition into a heavily regulated industry. FERC’s proposed rule changes fit within that

35 Glick, Richard. (2019). “Dissent in Part of Commissioner Richard Glick Regarding FERC’s Notice of Proposed Rulemaking to Update PURPA Regulations.” Federal Energy Regulatory Commission. <https://www.ferc.gov/media/statements-speeches/glick/2019/09-19-19-glick-E-1.asp#12>.

36 Glick, Richard. (2019). “Dissent in Part of Commissioner Richard Glick Regarding FERC’s Notice of Proposed Rulemaking to Update PURPA Regulations.” Federal Energy Regulatory Commission. <https://www.ferc.gov/media/statements-speeches/glick/2019/09-19-19-glick-E-1.asp#12>.

37 Speaker materials of Commissioner Travis Kavulla, Montana Public Service Commission, on behalf of NARUC, at the June 29, 2016 PURPA Conference, under Docket Number AD16-16. https://elibrary.ferc.gov/idmws/file_list.asp?document_id=14474494

38 Smith, V. L. (1987). Currents of competition in electricity markets. *Regulation*, 11, 23.

history well as they expand opportunities for QFs to enter electricity markets while simultaneously closing loopholes that created incentives for some QFs to serve themselves at the expense of ratepayers. FERC should continue implementing PURPA in ways that encourage competition, and these rule changes fit within goal.

Broader research on electricity markets suggests that proposed reforms will move closer to market pricing through competitive solicitations for electricity supply. As Dr. William Hogan points out, the defects in electricity markets stem from the “futile attempt to replace market incentives with central procurement directives.”³⁹ In place of additional subsidies, the best path forward is to “get the prices right.” FERC’s efforts to adjust its implementation of PURPA are exactly that, an effort to get the prices right by expanding competition. Administrative avoided cost estimates are not meaningful, informative prices because they do not emerge out of a competitive market process.

Getting electricity prices right is a fundamental issue in energy economics. Prices drive investments that will ideally best serve customers, so policies that artificially manipulate prices will distort investment. This principle is particularly important for the continued adoption of QFs that generate renewable energy. Stanford energy economist Frank Wolak argues that “efficient pricing at the wholesale and retail level is a key driver of the investments and innovations necessary to achieve a significant intermittent renewable energy share at least cost to consumers.”⁴⁰

Without price signals to guide investment, the opportunities to serve customers at a lower cost will be reduced or possibly lost entirely. In order to serve customers, PURPA reform should embrace practices like competitive solicitations instead of pushing market rules in favor of one group or another.

39 Hogan, W. W. (2019). Market Design Practices: Which Ones Are Best?[In My View]. *IEEE Power and Energy Magazine*, 17(1), 100-104.

40 Wolak, F. A. (2019). The Role of Efficient Pricing in Enabling a Low-Carbon Electricity Sector. *Economics of Energy & Environmental Policy*, 8(2). DOI: 10.5547/2160-5890.8.2.fwol.