

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-100, Sub 148

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
Biennial Determination of Avoided)	BRIEF OF THE
Cost Rates for Electric Utility)	ATTORNEY GENERAL'S
Purchase from Qualifying)	OFFICE
Facilities – 2016)	

The North Carolina Attorney General's Office (the "AGO")
intervening in this matter in the public interest and on behalf of the using
and consuming public under N.C. Gen. Stat. § 62-20, respectfully submits
this brief in opposition to (1) the proposal made in the initial comments of
Virginia Electric and Power Company, d/b/a/ Dominion North Carolina
Power ("Dominion"), Duke Energy Progress, LLC ("Duke Progress") and
Duke Energy Carolinas, LLC ("Duke Carolinas") (collectively, "Duke
Energy") that it would be appropriate to reduce the maximum contract
term for so-called "standard" contracts governed by Public Utility
Regulatory Policies Act of 1978 (PURPA) to ten years from fifteen years,
(2) the proposal by Duke Energy and Progress Energy to reduce the
eligibility for the standard contract from 5 MW projects to 1 MW projects,
and (3) the proposal made by Duke Energy in its initial comments that
payments under the standard contract would not be levelized, but would
instead have the energy component reset every two years.

There is no evidence that the proposals made by Dominion and
Duke Energy will stimulate development of solar energy or provide small

power production facilities with a reasonable ability to finance projects, as required by law. In fact, the evidence demonstrates that their proposals will result in greatly reduced development of renewable energy sources in North Carolina. These proposals by the utilities are not even targeted to the issues they purport to be addressing. Accordingly, in light of the fact that avoided costs rates will be lower in the next biennial period, the Commission should require the standard contract to (1) include an option for a 15 year term, (2) be available for projects 5MW and smaller, and (3) have levelized payments for the entire term.

The AGO is aware of legislation pending in the General Assembly that comprises a number of compromises between the solar industry and this state's regulated electrical utilities across a broad swath of issues, including, but by no means limited to, PURPA. As of the filing of this brief, it is unclear if the legislation will pass, and accordingly, the AGO's brief is focused on the law as it exists and the evidence presented in the current proceedings.

I. FEDERAL AND STATE LAW SUPPORT DEVELOPMENT OF RENEWABLE ENERGY BY REQUIRING REGULATED UTILITIES TO ENTER INTO LONG-TERM CONTRACTS WITH INDEPENDENT PRODUCERS.

A. The Law Requires Fairness to Ratepayers and Encouragement for Development of Alternative Energy Providers.

Under Section 210 of PURPA, cogeneration facilities and small power production facilities that meet certain standards can become "qualifying facilities" ("QFs") and become eligible to sell their power to

electric utilities at the so-called “avoided cost” rate. The avoided cost rate is the rate that reflects the cost that the utility can avoid as a result of obtaining energy and capacity from the QF rather than buying it from a third party or generating it themselves. See, e.g., *In re the Matter of Biennial Determination of Avoided Cost Rates for Electric Utility purchases from Qualifying Facilities – 2014*, Docket No. E-100, Sub 140, Order Setting Avoided Cost Input Parameters at 3 (December 31, 2014) (“Order on Inputs”); 18 C.F.R. § 292.304(a)(2). When QFs are paid at this avoided cost rate, then ratepayers should be indifferent from a financial standpoint as to whether their power is supplied by the utility or a QF. See, e.g., Order On Inputs at 53 (citing PURPA Section 210).

Interestingly, much of the testimony and advocacy offered in this docket is not about the avoided cost rates at all, but rather is about the contract terms that Dominion and Duke Energy must or may offer to QFs. In the North Carolina market, Dominion and Duke Energy are obligated by PURPA to purchase energy from QFs at the utilities’ avoided cost rates (except for QFs in the Dominion service area with a capacity greater than 20 MW, which FERC determined in a July 17, 2008 Order had the ability to sell their power to the wholesale markets). In the last biennial docket regarding avoided cost rates, with respect to contracts between smaller QFs and electric utilities, the Commission ordered that for QFs offering 5 MW or less capacity from hydroelectric, solar, wind, non-animal biomass, trash, hog waste, or poultry waste, Dominion and Duke Energy must offer

long-term contracts of five, ten, or 15 years. *In re the Matter of Biennial Determination of Avoided Cost Rates for Electric Utility purchases from Qualifying Facilities – 2014*, N.C.U.C. Docket No. E-100, Sub 140, Order Establishing Standard Rates and Contract Terms for Qualifying Facilities at 138 (December 17, 2015) (“Order Establishing Rates and Terms”). The Commission further ordered that the capacity and energy payments must be levelized, *i.e.*, the predicted avoided costs over the term of the contract are to be averaged over the term of the contract and paid in equal increments. *Id.* These contracts are known as the “standard contract.” Larger QFs are entitled to receive the utilities’ avoided cost rates, but they must negotiate each contract with the utilities.

In the avoided cost proceeding currently before the Commission, the issues of what size project would be eligible for the standard contract and the length of the standard contract have been strenuously contested. The utilities essentially admitted that their goal in reducing the size of the projects eligible for the standard contract and in reducing the term for such contracts was to rein in what Duke Energy witness Lloyd Yates characterized as “unconstrained growth in solar generation.” Tr. vol. 2, p. 25.

B. North Carolina and Federal Law Require That Small Power Producers Be Encouraged.

In PURPA, Congress directed the Federal Energy Regulatory Commission (“FERC”) to promulgate “such rules as it determines necessary to encourage cogeneration and small power production.”

FERC v. Mississippi, 456 U.S. 742, 750, 102 S.Ct. 2126, 2132, 72 L.Ed.2d 532, 541 (1982). Congress had concluded that a major hurdle to such development was that “traditional utilities were reluctant to purchase power from . . . the nontraditional facilities.” *Id.*; see also *Am. Paper Inst. v. Am. Elec. Power Serv. Corp.*, 461 U.S. 402, 404-405 (1983)(“Congress believed that increased use of these sources of energy would reduce the demand for traditional fossil fuels, and it recognized that electric utilities had traditionally been reluctant to purchase power from, and to sell power to, the nontraditional facilities.”)(internal quotations omitted).

Following hearings that the United States Supreme Court described as “extensive,” Congress concluded that the benefits of encouraging nontraditional power generation included promoting energy conservation, promoting more efficient use of energy resources, and increasing the energy independence of the United States. *FERC v. Mississippi*, 456 U.S. at 756, 102 S.Ct. at 2135-36, 72 L.Ed.2d at 544-45.

The increase in alternative energy available in North Carolina due to PURPA, federal and state tax incentives, and North Carolina’s Renewable Energy and Energy Efficiency Portfolio Standards, N.C. Gen. Stat. § 62-133.8, has many benefits to consumers that are not—and in many cases cannot be—captured in the avoided cost calculations:

- *National security.* As noted, a significant motivation for passing section 210 of PURPA was to put our country on a better path to energy independence.

- *Environmental benefits.* As public witness Amos Edison Speas, Jr., noted in his testimony, conservation of our natural environment and controlling and limiting air and water pollution are policies enshrined in the North Carolina Constitution. Tr. vol. 1, p. 12. Renewable energy does not pose the risks of environmental damage manifested in in Duke Energy's 2014 discharge of coal ash into the Dan River.
- *Health benefits.* Clean energy such as solar does not produce harmful emissions that affect the health of North Carolinians.
- *Competition and lower prices.* Small, non-monopoly power producers diversify the sources of energy available in our state, resulting in healthy competition and lower energy prices. As NCSEA witness Dr. Ben Johnson noted, PURPA was adopted at a time with Congress was attempting to scale back regulation and rely more on competition to advance the public interest. Tr. vol. 7, p. 122. Witness Johnson further testified that competition from small power producers helps to constrain costs and keep rates more affordable over the long term. Tr. vol. 7, p. 141.
- *Economic benefits.* Alternative energy that is produced in North Carolina creates jobs and investments in North Carolina. A 2015 study by Duke University found that there are 450 companies involved in the solar industry in this state, representing at least a \$2 billion in direct investment in the state,

and approximately 4,307 jobs. *The Solar Economy: Widespread Benefits for North Carolina*, Duke Center on Globalization, Governance & Competitiveness at 2 (February 2015), available at <http://www.seia.org/research-resources/solar-economy-widespread-benefits-north-carolina>. The study noted that some of the highest level of investment is in rural counties that have struggled historically to create jobs and businesses. *Id.*

Consumer interest in this docket has been robust and uniformly in support of renewable energy. Twelve witnesses gave testimony before the Commission during the public hearing on February 21, 2017. All favored continuing or increasing the use of alternative energy. The story was the same with the more than nine hundred consumers who filed comments with the Commission. Many echoed the sentiments of Max and Debbie Resnick who expressed pride in and support for North Carolina's leadership in solar production: "Solar power is built in North Carolina, by North Carolina companies, for North Carolinians."

In order to promote these benefits, federal and state law grant QFs the protection of long-term contracts in their dealings with monopsony utilities. A QF's right to long term fixed rates under Section 210 of PURPA is well established. See *J.D. Wind 1, LLC*, 129 FERC P 61,148 (2009), *reconsideration denied*, 130 FERC P 61,127 (2010). Specifically, the FERC's regulations permit a QF to enter into a contract or a legally

enforceable obligation to sell "energy or capacity pursuant to a legally enforceable obligation for the delivery of energy or capacity over a specified term[.]" 18 C.F.R. § 292.304(d)(2). The FERC has interpreted "specified term" to mean "long term." See Federal Energy Regulatory Commission, Docket No. RM79-55, Order 69, 45 Fed. Reg. 12214, 12224 (February 25, 1980) ("Order 69")(using those terms interchangeably). In its 2010 *JD Wind Order*, FERC noted that it has "consistently affirmed the right of QFs to long term avoided cost contracts." 130 FERC P61,127, 21-22 (citing authorities).

North Carolina law has a similar requirement for contracts with solar energy providers and hydroelectric power producers. By statute, the terms of **any** contract entered into between an electric power supplier and a new solar electric facility "shall be of sufficient length to stimulate development of solar energy." N.C. Gen. Stat. § 62-133.8(d)(emphasis added). The Commission's Rules and Regulations similarly provide that "[t]he terms of any contract entered into between an electric power supplier and a new solar electric facility or new metered solar thermal energy facility shall be of sufficient length to stimulate development of solar energy." R8-67(f)(1). With respect to hydroelectric facilities "long-term contracts for the purchase of electricity by small power producers shall be encouraged in order to enhance the economic feasibility of small power production facilities." N.C. Gen. Stat. § 62-156; see also N.C. Gen.

Stat. § 62-3(27a)(defining “small power producers” as hydroelectric facilities providing 80MW or less).

While the term “long term” is not defined in state or federal statutes or regulations, FERC and this Commission both require a legally enforceable obligation long enough to allow QFs “reasonable opportunities to attract capital from potential investors.” See, e.g., *Windham Solar LLC & Allco Fin. Ltd.*, 157 F.E.R.C. P61,134, 61,4765-76 (2016); E-100, Sub 140 Order on Inputs at 19 (“a QF’s legal right to long-term fixed rates under Section 210 of PURPA is well established as result of the FERC’s *J.D. Wind Orders*.”) This is necessary in light of the “need for certainty with regard to return on investment in new technologies.” See *J.D. Wind 1, LLC*, 129 FERC P 61,148 at 61,633 n. 33 (2009)(quoting Order 69), *reconsideration denied*, 130 FERC P 61,127 (2010).

This Commission has repeatedly determined - most recently in the Order in E-100, Sub 140 (2014) and previously in biennial avoided cost proceedings in Docket No. E-100, Sub 100 (2004); Docket No. E-100, Sub 96 (2002); Docket No. E-100, Sub 87 (1998); Docket No. E-100, Sub 79 (1996)--that with respect to the standard offer contract currently available to QFs producing 5 MW or less, a term of 15 years is the appropriate length of time to allow QFs to attract capital under the standard contract. The Commission’s position is in line with recent decisions from other states’ utilities commissions. See Order No. 16-129, Public Utility Commission of Oregon, UM 1725, March 29, 2016, Section V.B., at 7-8

(reaffirming current policy for 20 year contracts in which the last five years' pricing is index-based); See *also*, Public Service Commission of Utah, Order in Docket No. 15-035-53, January 7, 2016 (refusing to reduce PPA term to three years and establishing, instead, a 15-year PPA term).

In this proceeding, Duke Energy and Dominion seek to dramatically reduce this term to ten years. Moreover, they seek to greatly reduce the number of QFs that qualify for even a ten year term, by making the standard contract available only to QFs producing 1MW or less. There are currently no restrictions on how short a term a utility may demand in a negotiated contract. Dominion witness Gaskill testified that its twelve negotiated contracts have terms of either ten or fifteen years. Tr. vol. 6, p. 69-70. Duke Energy witness Kendel Bowman testified that with respect to negotiated contracts Duke Energy had moved from a ten year contract to a five year contract, and had considered reducing that further to a two year contract. Tr. vol. 3, p. 37.

As will be discussed below in Section III below, Dominion's and Duke Energy's expressed rationale for these change – supposed uncontrolled growth in power governed by PURPA and “risk of overpayments” to QFs—are not justified by the facts or the law. Rather, what is on display in this proceeding is exactly the issue that Congress sought to address by passing PURPA: the reluctance of monopsony utilities to buy power from small providers.

Of course, North Carolina ratepayers should not pay more than the utilities' avoided costs for alternative energy governed by PURPA.

However, efforts by Dominion and Duke Energy to make PURPA contracts less attractive to QFs on grounds other than price are not supported by the law and are not in the public interest.

II. THERE IS NO EVIDENCE THAT QFs CAN SURVIVE THE SIMULTANEOUS IMPACT OF LOWER AVOIDED COST RATES AND THE WHOLESALE SLASHING OF CONTRACT DURATION.

A. Witnesses With Experience Arranging for Financing of QF Projects Testified That the Utilities' Proposals Would Make It Difficult or Impossible to Finance Projects.

Witnesses with experience arranging for financing for QF projects testified that the contract modifications proposed by the utilities would not offer reasonable opportunities to finance QF projects and would stunt, rather than stimulate, the development of solar energy in North Carolina.

NCSEA witness Carson Harkrader is the Director for Project Development at Carolina Solar Energy II, LLC. Tr. vol. 7, p. 362. Her company is involved with early stage development of solar projects, and as such she works with other companies to arrange financing for solar farms. Tr. vol. 7, p. 368. She testified that in her experience, "the 15-year contract, coupled with the fixed rate over the entire contract term, are critical to enabling a QF to attract capital." Tr. vol. 7, p. 378. She stated that QFs with a shorter contract term than 15 years "would have a much smaller pool of potential debt and equity investors." Tr. vol. 7, p. 378. She also noted that difficulties in obtaining financing "would be exacerbated in

the context of small QFs that cannot achieve the economies of scale—and associated cost reductions—that large QFs can achieve.” Tr. vol. 7, p. 378.

Patrick McConnell is a Managing Director for Cypress Creek Renewables, a utility-scale solar developer. He testified that

Many in the industry actually consider the original standard offer contract length of 15 years to be insufficiently long compared to average utility contract tenors of 20 or 25 years. 10-year [contract terms] will lead to 10-year amortization periods, which will mean less debt and greater sponsor equity requirements at lower returns and greater risk. This in turn will result in many fewer projects getting financed and constructed.

Tr. vol. 6, p. 115.

Testimony from these fact witnesses was supported by expert testimony from NCSEA witness Kurt Strunk, an economist. He testified that reducing the standard contract from fifteen years to ten and the proposed two-year energy pricing resets would compromise the ability of QFs to secure reasonable terms for the long-term financing they need to construct power production facilities. Tr. vol. 6, p. 14-15.

B. The Evidence Offered In Support of Shorter Contracts Did Not Account for Substantially Changed Conditions.

The proposal by Dominion and Duke Energy to simultaneously reduce both the length of the standard contract term and the size of the projects eligible for the standard contract cannot be considered in isolation. Several other factors will impact the value of a PURPA contract during this biennial cycle. First, as numerous witnesses noted, avoided costs will drop dramatically as a result of falling fuel prices. For instance,

Public Staff witness John H. Hinton testified that the largest factor in decrease of utilities' avoided energy rates was a decrease in forecasted natural gas and coal prices over the next 10 years. Tr. vol. 8, p. 46.

Second, as NCSEA witness Dr. Ben Johnson testified, the adjustments to the avoided cost calculation proposed by Duke Energy would cause avoided cost payments to drop by approximately a third. Tr. vol. 7, p. 163-64. NCSEA witness Johnson testified that the utilities' proposed changes to the PURPA contracts "have the effect of increasing the risks faced by QFs, and making it more difficult to finance QF projects." Tr. vol. 7, p. 161. Third, North Carolina tax credits for solar projects expired as of December 31, 2016.

None of the witnesses who testified that financing would be reasonably available for ten year contracts took these factors into account. For instance, Dominion witness J. Scott Gaskill testified that "A 10-year contract still provides a basis for long-term financing of the project, as demonstrated by the fact that six, *i.e.*, 50 percent, of the non-standard contracts that the Company has entered into with solar QFs ranging from 12 MW to 20 MW have contained 10 year terms." Tr. vol. 5, p. 162. This testimony does little to illuminate whether such financing will be available under the substantially more adverse financial conditions existing in 2017 and later.

Duke Energy offered similar testimony. Duke Energy witness Glenn Snider testified that "[t]en-year purchase power agreements have

been offered to and accepted by large solar QFs in the Companies' service area, demonstrating that the 10-year term is readily financeable." Tr. vol. 2, pp. 197-98. Duke Energy witness Kendal Bowman testified that for the twenty-two negotiated PURPA contracts Duke Energy entered between August of 2012 and January of 2017, all were for ten years, none were below 5 MW, and the average was 37 MW. Tr. vol. 3, pp. 84-85. Witness Bowman admitted that Duke Energy had not evaluated whether QFs could obtain financing under the proposed changes to the avoided cost calculations, but simply stated that "it is our belief" that 1 MW QFs would be able to finance ten year contracts. Tr. vol. 3, p. 86.

Public Staff witness Hinton testified that "the use of 15-year fixed term contracts has been accepted by the financing community." Tr. vol. 8, p. 69. Nevertheless, he concluded that because the utilities had signed at least some contracts with terms of less than 15 years, therefore "use of a 10-year term is reasonable." Tr. vol. 8, p. 73. He further testified that he had "talked to several people" who agreed financing for a ten year project would be available. Tr. vol. 8, p. 156. Witness Hinton did not specify the roles or experience of the individuals with whom he spoke.

Witness Hinton agreed that a shorter contract term, together with the proposed modifications to the avoided capacity costs would have an additive effect in terms of challenging a QF's ability to get financing. Tr. vol. 8, p. 231. He also indicated that the North Carolina tax credits expiring "[gave] him pause to believe the future is not going to be like it

has been in the past where it will be going into a different world going forward.” Tr. vol. 8, p. 256. It is noteworthy that that the combined total of twenty-eight contracts of ten years for QFs larger than 5 MW that Dominion and Duke Energy have entered into is a very small number in comparison to the number of QFs in that size that filed reports of proposed construction or applied for a certificate of public convenience between 2013 and 2016, 156. Tr. vol. 8, p. 57.

C. The Evidence Offered In Support of Shorter Contracts Is Inapplicable to Smaller QF’s.

In opining that a ten-year contract provides a basis for financing of a QF project, Dominion witness Gaskill relied on the fact that Dominion entered into six ten year contracts with solar QFs with projects between 12 MW to 20 MW. Tr. vol. 5, p. 162. This testimony obviously does not support the conclusion that QFs between 1 MW and 12 MW can successfully finance their projects. Duke Energy witness Kendal Bowman testified that for the twenty-two ten-year negotiated PURPA contracts Duke Energy entered between August of 2012 and January of 2017, none of the QFs were smaller than 5MW, and the average was 37MW. Tr. vol. 3, pp. 84-85. In testifying in favor of eliminating the 15 year contract, Public Staff witness Hinton did not appear to take into account whether small QFs could reasonably obtain financing for ten year contracts. Tr. vol. 8, p. 73. In particular, to the extent witness Hinton based his opinion on what other people told him about the availability of financing for ten

year projects, he did not state that their opinion covered contracts from smaller QFs. Tr. vol. 8, p. 156.

Cypress Creek witness McConnell testified that “the cash flow profiles of investments with [contract terms] of less than at least 15 years, and in most cases 20 years, simply do not make sense for smaller projects.” Tr. vol. 6, pp. 114-15. He defined smaller projects as those of less than 50 MW. Tr. vol. 6, pp. 115.

NCSEA witness Harkrader testified that she had been involved with two larger projects where she was ultimately able to find investors for two QFs with ten year terms. Tr. vol. 7, pp. 419-420. However, she found that “the pool of investors that would look at these projects with a 10-year term was much smaller than what would look at them with a 15-year term.” Tr. vol. 7, p. 420.

D. Duke Energy’s Proposal to Re-Set Rates Every Two Years is Unsupported By Any Evidence and Is Contrary to the Law.

The proposal from Duke Energy to “transition” to a ten-year contract with levelized capacity payments and energy payments reset every two years by the Commission was unsupported by any evidence whatsoever that such contracts would offer reasonable opportunities to attract capital from potential investors as required by PURPA. NCSEA witness Harkrader testified that it would “abruptly curtail the QF market that has been created here.” Tr. vol. 7, p. 380. Cypress Creek witness McConnell testified that “[w]ithout reasonable certainty as to contracted cash flows based on a defined term at a defined price, the institutional

marketplace is generally unwilling to take pricing risk.” Tr. vol. 6, p. 114. He flatly stated that “[f]inancing parties would view a ten-year contract with a two year readjustment no more favorably than they would a two-year contract, which . . . would not be financeable in the current environment.” Tr. vol. 6, p. 116.

NCSEA witness Johnson stated that Duke Energy’s proposal to reset avoided cost rates every two years would fundamentally change the economics of solar production, from a stable revenue stream that matches well with a cost structure of high fixed costs to a revenue stream that would fluctuate with volatile fuel prices and depend on the outcome of a litigated avoided cost proceeding every two years. Tr. vol. 7, p. 267-68. As SACE witness Dr. Thomas Vitolo observed based on Duke Energy’s responses to information requests, Duke Energy admitted that it had not evaluated the potential adverse impacts on the ability of solar QFs to obtain financing with ten year contracts where the energy rates are recalculated every year. Tr. vol. 7, p. 38. Public Staff witness Hinton agreed a recovery period of only two years is not reasonable, noting that that a utility would never be required to assume that level of risk. Tr. vol. 8, p. 154.

At any rate, Duke Energy’s proposal in this regard is contrary to law. Relying on *J.D. Wind*, the Commission previously rejected a proposal by North Carolina Power to offer variable avoided energy rates for QFs larger than 100 kW that would be updated every two years. Order

Establishing Standard Rates and Contract Terms for Qualifying Facilities,
N.C.U.C. Docket No. E-100, Sub 127 at 9 (July 27, 2011). As the
Commission has previously noted,

a QF's legal right to long-term fixed rates under Section 210 of PURPA is well established as result of the FERC's *J.D. Wind Orders*. The FERC has made clear that its intention in Order No. 69 was to enable a QF to establish a fixed contract price of its energy and capacity at the outset of its obligation because fixed prices were necessary for an investor to be able to estimate with reasonable certainty the expected return on a potential investment, and therefore its financial feasibility, before beginning the construction of a facility."

Order on Inputs, at 19.

E. No Evidence Supports Contracts of Less Than 15 Years for QFs of 5MW or Smaller.

Dominion, Duke Energy, and the Public Staff support making the standard contract terms available only to QFs of 1MW and smaller. All other PURPA contracts would be negotiated by the utilities and the QFs.

The primary concern for the QFs is that once they are ineligible for the standard offer contract, the utilities have discretion to set the term of the contract, including the length of the contract. As witness Harkrader testified,

It is my understanding that . . . Duke significantly reduced the PPA term it offers to QFs for negotiated PPAs. Because of this recent change, CSE has serious concerns regarding the Utilities' proposed modification to the Standard Offer, as they would have the effect of requiring any QF greater than 1 MW to negotiate a contract with the electric utility, and I suspect that at the current time, a QF would not be able to negotiate a PPA with a term of sufficient length to allow a QF the reasonable opportunity to attract capital.

Tr. vol. 7, p. 380.

As SACE witness Vitolo testified, negotiations for the bi-lateral contracts are very one-sided, since the utilities are the only customer for QFs in North Carolina, and by the time the negotiations are transpiring, the QF already has sunk significant resources into the project that will be lost if no contract is signed. Tr. vol. 7, pp. 26-27. The AGO commends and supports plans on the part of the QF developers, the Public Staff, Dominion, and Duke Energy to streamline and regularize the process of negotiating contracts. However, it is noteworthy that the process does not seem to have improved since the last biennial avoided cost proceeding in which Duke Energy witness Bowman testified that Duke Energy was taking steps to streamline the contract negotiation process. Order on Inputs at 17. Until substantial progress is made on this front, the AGO does not support reducing the availability of the standard contract below 5MW.

The benefit of reducing the availability of the standard contract from the point of view of the utilities, is that the payment for negotiated contracts is not set biennially in avoided cost proceedings, but rather is calculated using updated data on fuel cost projections and other parameters that are available at the time the QF establishes an LEO. See Dominion witness J. Scott Gaskill, Tr. vol. 5, pp. 145-46. However, as discussed in detail in Part III A, the advantage of frequent recalculations of avoided costs rates is greatly overstated.

III. THE SOLUTIONS PROPOSED BY DOMINION AND DUKE ENERGY TARGET THE SOLAR INDUSTRY, NOT THE ALLEGED PROBLEMS.

Duke Energy and Dominion are seeking substantial changes in the PURPA contracts for three reasons. First, they assert because fuel prices have been trending sharply downward, long-term contracts lock ratepayers into inappropriately high rates. Second, they contend that with the standard contract, there is too long a time between when the QF obtains a legally enforceable obligation (“LEO”) therefore entitling it to the then-prevailing Commission-set avoided cost rates and the time when the QF is connected to the grid and providing power. Third, they worry that the growth in solar QFs is uncontrolled, creating potential issues with their ability to provide safe and reliable electric power to their customers.

A. The Utilities’ Failed Fuel Price Forecasts Are Not Grounds to Slam The Brakes On Small Power Producers.

It is contrary to PURPA for Dominion and Duke Energy to argue—as they do—that because their fuel forecasts failed to predict how fast natural gas prices would fall, the remedy is to create fewer opportunities for their competitors to gain a foothold in North Carolina’s electric power market. It is implicit in the utilities’ position that they anticipate that forecasted fuel prices will continue to be underestimated in the future. If this were not so, their proposals in this docket would amount to closing the barn door after the horse was gone. In order to limit customers’ exposure to the overpayments they already predict for the future, Dominion and Duke Energy seek to reduce the length of contracts with QFs.

In fact, as FERC recognized in Order 69, where rates are based on predictions into the future, sometimes ratepayers will come out ahead and sometimes the QFs will be “in the money”:

Some of the comments received regarding this section stated that, if the avoided cost of energy at the time it is supplied is less than the price provided in the contract or obligation, the purchasing utility would be required to pay a rate for purchases that would subsidize the qualifying facility at the expense of the utility's other ratepayers. The Commission recognizes this possibility, but is cognizant that in other cases, the required rate will turn out to be lower than the avoided cost at the time of purchase.

45 Fed. Reg. at 12224.

SACE witness Vitolo explained why the risk of overpayments to QFs does not justify shorter contract terms. He noted that in past avoided cost proceedings, projections were made based on the best available information at that time, although “it appears now that . . . the price of natural gas and the cost of avoided energy now in 2017 is lower than we thought it would be in 2014. We don't know yet what the cost of energy will be in 2020 or 2025. We can only project just as we did back then.” Tr. vol. 7, pp. 101-02. Witness Vitolo observed that since it is at historic lows, the price of natural gas only has so far to drop, and that factors such as new regulations for hydraulic fracturing or a war in oil-producing countries could cause the price of natural gas to rise. Tr. vol. 7, p. 102.

In actuality, long-term QF contracts are beneficial to ratepayers because they create stability in the electric utility's rate structure. SACE witness Vitolo stated that “[t]he avoided energy cost is closely tied to the price of delivered natural gas, which has been historically volatile and

continues to fluctuate.” Tr. vol. 7, p. 36. Duke Energy’s proposal to revise the avoided energy payment as often as every two years “foregoes the rate stability that decoupling some generation from variable fuel prices offers.” *Id.* “Under the current tariffs, the ratepayers gain a five-year, 1-year, or 15-year energy price hedge each time a QF selects a longer-term contract because unlike the energy costs associated with the utility’s coal- and gas-fired plants, the QF contract has a fixed energy rate. Eliminating the avoided energy rate certainly throughout the life of the contract foregoes the ratepayer benefit of rate stability.” Tr. vol. 7, p. 38.

NCSEA witness Johnson concurred: “From the perspective of retail ratepayers, QF energy is particularly attractive when it is purchased at fixed prices pursuant to long-term contracts, because these contracts provide a stabilizing element in the utilities’ cost structure, thereby reducing volatility in retail prices.” Tr. vol. 7, p. 141.

The utilities’ proposal to clamp down on small power producers at the first sign of a forecasting error on their own part is contrary to how utilities are themselves are regulated. The Commission has recognized

[t]hat a utility's commitment to build a plant represents a similar type of long term fixed obligation for the utility's customers, largely based upon forecasts of future prices. In many respects the utilities own self-build options are based upon similar "uncertain" forecasts.

Order on Inputs at 20.

Amplifying this point, NCSEA witness Johnson pointed out that every investment in a particular type of power generation involves predictions about future fuel prices that may not be accurate. Tr. vol. 7, p.

204. For instance, ratepayers are paying for a coal-fired plant, Cliffside 6, which Duke Energy constructed shortly before natural gas prices plunged. Tr. vol. 7, p. 204. Witness Johnson concluded “all sources of electricity involve economic uncertainties and risks that may seem less attractive in hindsight than they did at the time the decisions were made.” Tr. vol. 7, p. 204.

Moreover, Duke Energy’s comparisons of the avoided cost rates being paid for a group of QF contracts entered into over a multi-year period of time, on the one hand, with the avoided cost rates Duke Energy seeks the Commission to order in this proceeding, on the other hand, (see Witness Snider’s testimony on cross-examination, Tr. vol. 7, p. 198) is not a valid comparison. In the first place, NCSEA witness Johnson explained that even with perfect forecasting, QF rates would be expected to be higher than average fossil fuel prices, at least in the early years of a contract. There are two reasons for this. First, QF rates are levelized over the term of the contract, and therefore they reflect an averaging of lower fuel costs in the early years of the contract and higher costs expected in the later years of the contract. Tr. vol. 7, p. 165. Second, under the peaker method used by the Commission to determine avoided costs, the QF rates are based on marginal fuel costs which are higher than average fuel costs. Tr. vol. 7, p. 166.

In the second place, NCSEA witness Johnson explained that when Duke Energy compared a single year’s worth of marginal costs to

levelized fixed QF prices averaged across a large group of long-term contracts, including ones that were signed when fuel prices were higher than they are currently, Tr. vol. 7, pp. 199-200, that methodology “greatly exaggerates the impact of the recent dip in fuel prices.” Tr. vol. 7, p. 200. He concluded that the comparison was “completely invalid.” Tr. vol. 7, p. 200. In fact, witness Johnson stated that the gap between the QF fixed contract price and Duke’s marginal cost of fuel could “entirely disappear” in the remaining years of the contract if fuel prices return to their historic trends. Tr. vol. 7, p. 201.

Although Public Staff witness Hinton opined that he thought the increase in QF development had increased the risk of overpayment to the QFs he did not offer any reason why overpayment risk to ratepayers was greater than underpayment risk to the QFs, other than to say that there were integration costs not yet fully quantified. Tr. vol. 8, p. 24. However, Public Staff witness Lucas testified that the QFs are paying for the system upgrades needed to interconnect to the grid “to a large extent.” Tr. vol. 8, p. 237. Public Staff witness Hinton noted that the Public Staff is hoping that the utilities will release an integration cost study soon, to ensure that all of the costs of solar are appropriately identified. Tr. vol. 8, p. 238. Of course, as noted above in Part I, many benefits to ratepayers from encouragement PURPA small power producers are also not quantified in monetary terms in the avoided cost rates.

Dominion and Duke Energy have been on notice since at least the last avoided cost docket that it would be appropriate for them to prepare integration studies. In the 2014 biennial avoided cost proceedings, the Commission made the following finding of fact: “Integration of solar resources into a utility’s generation mix, depending in part upon their location, may result in costs and/or benefits, many of which may be appropriate for inclusion in a utility’s avoided cost calculations. Thus it is appropriate for the costs and benefit attributed to solar integration as such integration becomes more pervasive to be more fully evaluated in detailed integration studies.” Order on Inputs at 8. The Commission went on to note that Duke Energy was proposing to include only the costs associated with integrating intermittent solar energy, despite the potential for benefits that could be revealed upon a more fulsome model. Order on Inputs at 60. The decision by the utilities not to quantify costs and benefits associated with PURPA is not a reason to take actions that would violate PURPA.

In the 2014 biennial avoided cost proceeding, the Commission stated that it must “balance the federal and North Carolina public policy requirement that QFs be encouraged against the risks and burdens that long-term contracts place on customers.” Order on Inputs, No. E-100, Sub 140 at 21. In this proceeding, no party has presented convincing evidence of any risk to ratepayers of continuing to offer fifteen year contracts to QFs of 5 MW and under. This is particularly true when the

benefits of to ratepayers of long-term contracts are also considered.

Therefore, there is no reason for the Commission to chart a new course from the one it chose in the last biennial avoided cost proceeding:

The Commission determines that overestimating avoided costs creates costs ultimately borne by ratepayers and underestimating avoided costs creates risks for the QF developers. Failure to calculate accurately a utility's avoided cost means ratepayers will pay for the additional energy and capacity whether the utility builds the plant and places it in rate base or the utility pays QFs avoided cost rates. The Commission concludes that establishing avoided cost rates based upon the best information available at the time and making such rates available in long-term fixed contracts, as required by Section 210 of PURPA should leave the utilities' ratepayers financially indifferent between purchases of QF power versus the construction and rate basing of utility-built resources.

Order on Inputs at 21.

As noted, electric utilities have been seeking approval from the Commission for shorter contracts under PURPA for years. The fact that the country is experiencing unexpectedly low natural gas and coal prices at the moment is an inadequate reason to change direction.

B. Combatting “Stale” Rates Is Primarily In the Hands of Dominion and Duke Energy.

To a certain extent, a lag between when avoided cost rates are calculated and when they are paid by the electric utility to the QF is simply a feature of the operation of PURPA, as the Commission has recognized:

The Commission has . . . consistently affirmed the right of QFs to long-term avoided cost contracts or other legally enforceable obligations with rates determined at the time the obligation is incurred, even if the avoided costs at the time of delivery ultimately differ from those calculated at the time the obligation is originally incurred. Rates based on avoided costs at the time the obligation is originally incurred are

consistent with the requirements of PURPA, and we see no impediment to accurately determining such rates for QFs powered by intermittent resources.

Order on Inputs, at 19 (acknowledging QF's legal right to long-term fixed rates under Section 210 of PURPA pursuant to *JD Wind*).

At this point in North Carolina's PURPA history, the utilities are most in control of the length of time between a QF obtains an LEO and time it provides power. NCSEA witness Harkrader participated in stakeholder discussions in 2014 that led to revisions to the Interconnection Standard. Tr. vol. 7, p. 385. She testified that QF developers accepted strict timelines and penalties for failing to meet them, even though the utilities do not face equivalent penalties for failing to meet their required timelines. Tr. vol. 7, p. 386. Following those revisions to the Interconnection Standard, witness Harkrader believes that long delays between establishment of an LEO and interconnection to the grid are typically caused by the lengthy utility study process and not by the QFs. Tr. vol. 7, p. 386. Witness Harkrader testified that based on her experience, the interconnection process is effectively on hold for any QFs that had not already received its System Impact Study Reports and Interconnection Agreements by early- to mid-2016. Tr. vol. 7, pp. 375, 400-01. She is involved with one project in which the interconnection request was submitted twenty-one months prior to her testimony, but still had not received a system impact study needed to move forward. Tr. vol. 7, p. 394.

To the extent the utilities are concerned with “stale” rates, it would be more appropriate for them to invest the resources to move QFs expeditiously through the interconnection queue, rather than forcing more QFs into disadvantageous contracts that do not stimulate the growth of solar or encourage small power generators, as required by law.

C. The Utilities’ Concerns About “Uncontrolled” Growth Are Not Backed By Actionable Evidence.

While it is true that North Carolina is a nationwide leader in solar energy, the data presented in this docket do not show a trend of explosive growth. The graph Public Staff witness Hinton discusses in his testimony shows that over the last four years, the greatest number of applications for certificates of public necessity or reports of proposed construction were filed in 2014, with a dip in 2015, and a slight up-tick in 2016. Tr. vol. 8, p. 41. Similarly, the chart that Duke Energy witness Kendal Bowman presented demonstrates that after peaking in 2014, interconnection requests were down nearly fifty percent in 2015, before rising somewhat in 2016. Tr. vol. 3, p. 326. Of course, growth in small power producers is the desired result of both PURPA and North Carolina law.

Duke Energy witness Holeman identified some concerns about managing solar energy on the electrical grid. Tr. vol. 2, p. 67. Through witness Snider, Duke Energy also identified some potential solutions for providing more operational flexibility. Tr. vol. 2, p. 212. However, NCSEA witness Johnson testified that Duke Energy had not used all of its resources to analyze the challenges connected with solar energy. Tr. vol.

7, p. 354. He concluded that he doesn't "think the facts are at a point where the problem is so pervasive the solution is just to put the brakes on and stop QF development." Tr. vol. 7, p. 355.

The evidence before the Commission demonstrated that there are currently missed opportunities for the utilities to work with QF developers to achieve better outcomes for all parties. NCSEA witness Harkrader testified that although Duke Energy and Dominion both acknowledge that solar energy can provide benefits when located at certain places on the grid, the information about these locations is not shared with the QF developers. Tr. vol. 7, p. 372. Witness Harkrader also testified that the QFs have not been given an opportunity to work with the utilities to use inverter technology to deliver greater value to the utilities and its ratepayers. Tr. vol. 7, pp. 372-73.

The fact that Duke Energy and Dominion have not prepared detailed studies to date, but chose instead to come before the Commission with vague warnings of grid instability provides no grounds to make draconian cuts in the contract terms available to not only solar QFs but other small power generators as well. Without concrete evidence of harm, there is no basis to impede the development of alternative energy sources.

CONCLUSION

For the reasons described above, the Commission should maintain the terms of the standard contract available for projects of 5 MW and under, with levelized payments, and an option for fifteen year terms.

Respectfully submitted, this the 22nd day of June, 2017.

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CERTIFICATE OF SERVICE

The undersigned certifies that she has served a copy of the foregoing ATTORNEY GENERAL'S BRIEF upon the parties of record in this proceeding and their attorneys by electronic mail.

This the 22nd day of June, 2017.

/s/ Jennifer T. Harrod
Jennifer T. Harrod
Special Deputy Attorney General