

BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

Investigation of Parallel Generation Purchase Rates

5-EI-157

**COMMENTS OF THE CLEAN ENERGY ADVOCATES ON THE
DECEMBER 18, 2020 MEMORANDUM**

RENEW Wisconsin, the Environmental Law and Policy Center, and Clean Wisconsin (collectively, Clean Energy Advocates) are pleased to respond to the Public Service Commission's (PSC) December 18, 2020, request for comments on eight procedural and substantive questions. PSC Staff should be commended for their succinct and helpful summary of relevant issues and related materials.

The development of distributed generation (DG) resources is critical to accelerating progress toward the state's goal of 100% carbon-free electricity by 2050, cultivating competition and invigorating the state's energy economy. The PSC can address the inconsistent policy, market uncertainty, and uneven playing field that currently make Wisconsin an unnecessarily difficult place for DG development by taking the following actions:

1. Finding Wisconsin utilities' current parallel generation rates to be unjust, unreasonable and discriminatory because they do not fully reflect avoided costs and because they treat utility-owned and non-utility-owned resources differently, with no legitimate basis for doing so;
2. Request Staff prepare a proposal (Staff Proposal) that includes: (a) a suggested common methodology to calculate parallel generation rates for Wisconsin utilities and (b) a consistent set of terms¹ and standard contract provisions based on best practices from utilities around the state for encouraging the development of QF generation; and
3. Require each PSC-jurisdictional utility to propose parallel generation rates, terms, standard contracts and any necessary supporting data in line with the Staff Proposal as part of its next rate case, while simultaneously allowing the utility and intervenors to propose alternatives.

As discussed in detail below, all utility parallel generation rates should include avoided energy, capacity, transmission, ancillary services and environmental costs and should be calculated using the methodologies recommended below.

¹ The word "terms" in these comments refers to both eligibility for certain tariffs and also elements of a PURPA QF contract such as system size delineations, the structure of the purchase, contract length, and other such options that can readily be standardized to reduce transaction costs.

1. *Should the Commission order all utilities, or a subset of utilities, to address the comments and analysis presented in this investigation in their next rate filing?*

The Clean Energy Advocates recommend the PSC employ a three-step process. First, as described further in response to Question 4, the PSC should find in this proceeding that current PURPA QF rates for most, if not all, utilities in Wisconsin do not reflect avoided costs and are unjust and unreasonable, discriminatory, or otherwise require revision.² Second, the PSC should develop a straw framework for PURPA QF proposals, which may be in the form of a Staff Report, setting out an avoided cost framework. Third, the PSC should require IOUs to propose PURPA QF rates, terms, and standard contracts in rate-setting cases consistent with the recommended straw framework put forward by Staff. The utilities should be directed to provide all data necessary to populate the variables in the straw framework. However, the PSC should allow utilities and other parties to make alternative proposals with respect to which avoided cost factors should be included, as well as the use of different methodologies to calculate the values of those factors. A specific, binding methodology should only be adopted as part of a contested case such as a general rate case.

In order to promote uniformity, the PSC's order in this proceeding should address all utilities. However, the PSC should acknowledge there are differences between large investor-owned utilities (IOUs) and smaller utilities, and potentially give smaller utilities the opportunity to demonstrate that certain components do not apply to their specific circumstances.

2. *Should the Commission commence a proceeding to address the parallel generation purchase rates of any utilities at this time?*

Please see the answer to Question 1 above. The PSC could consider opening a contested case proceeding incorporating all utilities. However, addressing QF rates in specific rate cases would allow utility-specific considerations to be taken into account; streamline testimony, discovery, and cross-examination to focus on individual utilities; and potentially produce swifter and clearer outcomes than a single statewide proceeding. If the PSC chooses instead to pursue a single adjudicative proceeding addressing all utility QF rates, such an alternative approach could promote consistency across utilities but may risk becoming unwieldy.

² See, e.g., *Re Wisconsin Telephone Company*, Docket 2-U-6098, 55 P.U.R. 3d 230 (Aug. 25, 1964) (utility rates must be just and reasonable); 16 U.S.C. § 824a-3(b) (requiring that purchase rates under PURPA “shall be just and reasonable” and “shall not discriminate”).

3. *Of the issues addressed in this memorandum, which issues are best addressed through continued statewide analysis conducted as part of this investigation?*

Please see the answers to Questions 1 and 2 above. The Clean Energy Advocates identify below the elements that should be included in a consistent, statewide avoided cost methodology, while highlighting weaknesses in current utility practices. Utility-specific values and rates can be further developed in a subsequent adjudicative proceeding or proceedings, with tailoring of the straw framework to meet the circumstances of smaller utilities as necessary and appropriate.

4. *Do existing purchase rates for energy and capacity accurately reflect the avoided costs associated with parallel generation facilities?*

No, they do not. QF purchase rates for energy and capacity in Wisconsin must more accurately reflect a utility's avoided energy and capacity costs. Existing QF purchase rates should be revised in part because they are based on only short-term marginal energy costs rather than forward projections, as well as incomplete capacity values – to the extent they include capacity values at all. In addition, every utility should value and compensate avoided transmission costs, yet currently only a few do so. The Commission should also ensure that utilities do not discriminate against customer-owned generation by treating utility-owned DG resources more favorably, with no legitimate basis for doing so.

Current QF Rates in Wisconsin Do Not Accurately Reflect Avoided Costs

Congress intended PURPA³ to overcome the reluctance of monopoly utilities to buy renewable energy produced by non-utilities.⁴ To remedy market barriers imposed by monopoly utilities, Congress mandated that every utility buy electricity from QFs and pay non-discriminatory prices based on criteria set by the Federal Energy Regulatory Commission (FERC).⁵ This is referred to as PURPA's non-discriminatory "must-purchase" obligation. Pursuant to PURPA, FERC sets minimum standards which the PSC is required to implement,⁶ but the PSC has the flexibility to exceed those minimum standards⁷ in order to ensure that

³ 16 U.S.C. §§2601 *et seq.*

⁴ 45 Fed. Reg. 12214, 12215 (Feb. 25, 1980); *Am. Paper Inst. v. Am. Elec. Power Serv. Corp.*, 461 U.S. 402, 405 (1983).

⁵ 16 U.S.C. § 824a-3(b)(2); 18 C.F.R. §§ 292.303(a); 292.304(a)(1)(ii).

⁶ 16 U.S.C. § 824a-3(a), (f)(1).

⁷ *See Administrative Determination*, IV Federal Energy Reg. Comm'n Rep. (CCH) Par. 32,457 at 32,173 (stating that FERC "afforded the states . . . a great deal of flexibility both in the manner in which avoided costs are estimated and in the nature of the contractual relationship between utility and QF"); Regulations Implementing Section 210 of the Public Utility Regulatory Policies Act of 1978, 45 Fed. Reg. 12,214, 12,222 n. 50 (1980) ("to the extent that the method of calculating the value . . . reasonably accounts for the utility's avoided costs, and does not fail to provide the required encouragement of cogeneration . . . it will be considered satisfactorily implementing [FERC's] rules.").

PURPA's aim of encouraging the development of renewable and alternative resources is met.⁸ PURPA requires electric utilities to buy all the power produced by QFs⁹ and to pay the same rate they would have paid if they had obtained that energy from a source other than the QFs.¹⁰

The key shortcoming for both the energy and capacity components of avoided costs in Wisconsin is the short-term nature of the valuation. As Staff points out, the majority of large IOUs use the MISO Locational Marginal Price (LMP) to determine avoided energy costs, while most municipal and small IOUs rely on wholesale rates.¹¹ These rates fail to utilize a forward projection of the energy costs QFs can avoid going forward.

Existing QF rates also reflect an incomplete capacity value due to the structure of the MISO capacity market to which that value is pegged. MISO's Planning Resource Auction (PRA) is a voluntary residual capacity market that is short-term in nature. The Staff Memorandum accurately enumerates the numerous limitations of tying QF rates to MISO's PRA, including that the PRA does not include the full range of participants, lacks a forward capacity element, reflects substantial volatility, and excludes various utility charges and benefits.¹² Yet as Table 2 of the Staff Memorandum indicates, the Wisconsin utilities that offer capacity value currently calculate that value relying exclusively on the PRA.¹³

The prevailing emphasis on short-term avoided costs for QF purchases creates a disconnect relative to utility resource planning. As the Staff Memorandum notes, the utilities characterize MISO's Cost of New Entry (CONE) as more representative than PRA of a long-term capacity reference appropriate for their capacity addition proposals, whereas lower PRA values are a short-term capacity reference.¹⁴ Utility planning processes for both investments in utility-owned generation and PPA solicitations are based on assessments of long-term needs and projected costs. In contrast, PRA reference points reflect only a short-term value that fail to provide an economically efficient price signal for long-term decision-making.¹⁵ This disconnect

⁸ See, e.g., *Federal Energy Regulatory Comm'n v. Mississippi*, 456 U.S. 742, 750-51 (1982).

⁹ 18 C.F.R. § 292.303(a).

¹⁰ 18 C.F.R. § 292.304.

¹¹ Dec. 18 Staff Memorandum at p. 12, Figure 3.

¹² See *id.* at p. 5-6, 13-14, 17-18.

¹³ *Id.* at p. 13, Table 2.

¹⁴ *Id.* at p. 14 and n. 24.

¹⁵ See Brattle Group, *Evaluating the MISO's Planning Resource Auction*, p. 9 (Aug. 2020) ("The auction price is not an efficient signal for entry and exit because there is too much uncertainty and volatility. This makes it difficult for LSEs to use price signals to: 1. Compare the costs of their own resource options to those available for purchase through the PRA from other market participants, or 2. Enable efficient long-term trading of capacity.").

reduces incentives to develop QF resources that could compete with or displace other investments and unjustifiably disadvantages non-utility-owned generation.

Further, market supply at low prevailing short-term energy and capacity market prices is limited and will not necessarily meet future needs. Utilities cannot simply rely on market purchases to meet future energy and capacity needs because the availability of supply depends on the long-term price signals that the PRA does not provide. Even if market supply were sufficiently forthcoming at those prices, relying on market purchases to meet long-term resource needs exposes ratepayers to unnecessary risks, compared to long-term resources at fixed prices.

The result is that parallel generation rates in Wisconsin do not fully reflect avoided costs for energy and capacity and have slowed the growth of smaller QFs and all but prevented the development of larger QFs. The PSC should ensure avoided cost levels are adequate to secure PURPA QF resources.

QF Rates Should Be Modified to Foster Renewable Energy Development

The fundamental inquiry under PURPA is whether the costs avoided by utility purchases from QFs as reflected in parallel generation purchase rates are equivalent to the costs that would be avoided had a utility acquired those same energy and capacity attributes from a non-QF resource, such as via a PPA with a non-QF or from a utility-owned resource. With this in mind, the utilities should modify QF avoided energy and capacity cost factors to include long-term avoided costs based on the same projections used in proceedings for utility-owned resources or PPAs, and all utilities should include avoided transmission costs.

Utilities may continue to calculate avoided energy costs based on MISO LMPs but should utilize a forward projection consistent with utility projections, in order to better address the disconnect between utility resource planning and the need for PURPA QF resources.¹⁶ The use of short-term only LMPs in determining avoided costs exposes QFs to risks that are not imposed on utility-owned generation (or long-term PPAs). If long-term projections are based on those for utility-owned projects, ratepayers are at worst held indifferent because the prices paid are those that would have otherwise been paid to a utility. In other words, if market prices fell,

¹⁶ The LMP is one measure of marginal costs that might be used to establish avoided energy costs. However, it may be an inaccurate measure of an individual utility's avoided energy costs, such as where a utility relies on self-dispatch of its own generation or through a contract rather than fully relying on short run market purchases. We note that this issue is a prominent point of contention with respect to FERC Order No. 872 which is currently being appealed.

there would not be any opportunity cost for ratepayers because ratepayers would have paid the same amount in the form of a utility ownership. If marginal energy prices rise, ratepayers recover the difference between the higher prices associated with market purchases and the contract price.

With regard to avoided capacity costs, MISO PRA prices do not accurately reflect the value of avoided capacity because MISO PRA does not provide a signal that promotes timely and consistent investment in new resources.¹⁷ Instead, MISO CONE should be adopted as the reference point for determining avoided capacity costs. CONE provides an independent and unbiased measure of the value of avoided capacity representing the cost of a hypothetical new build capacity resource used to meet MISO capacity obligations. The measure of “perfect” capacity can be modified in a technology neutral manner to reflect the capacity accreditation of different resource types used by MISO to reflect the contribution of a given resource towards meeting capacity obligations. The capacity contribution should reflect the incremental value provided by any paired storage used to firm a resource and enhance its dispatchability.

In addition, the PSC should require the utilities to define future capacity needs in QF rate filings, or as part of their general rate cases, in order to support the attribution of capacity cost avoidance. This is a standard exercise in utility planning and does not require that an Integrated Resource Planning (IRP) process be in place in Wisconsin. It is a standard requirement in avoided cost filings in other states such as Iowa, is required under the FERC rules set out at 18 CFR § 292.302(b), and is not conditional upon a state using an IRP process. The PSC should hold utilities to these same resource need projections when proposing to procure resources outside of standard offers to QFs.

With respect to avoided transmission costs, these costs should be included in PURPA QF rates to the extent that a QF in a given location avoids the allocation of transmission costs to a utility (and its ratepayers). Transmission costs are currently allocated to utilities based primarily on a 12 coincident peak (12CP) methodology reflecting their load at the time of each monthly peak during a year. As the Staff Memorandum notes, both Manitowoc Public Utilities and WPSC currently offer a transmission credit,¹⁸ and all utilities should be required to do the same.

In sum, an avoided cost methodology in Wisconsin should include the following three components for avoided energy, capacity, and transmission: 1) compensation for avoided energy

¹⁷ *See id.*

¹⁸ Dec. 18 Staff Memorandum at p. 14.

costs based on MISO LMPs using forward projections; 2) compensation for avoided capacity based on MISO CONE; and 3) compensation for avoided transmission costs equal to the avoided allocation of MISO transmission costs based on 12CP.¹⁹

5. *Should additional avoided costs be included in purchase rates?*

In addition to avoided costs for energy, capacity, and transmission, PURPA QF rates should incorporate avoided ancillary services and environmental costs, which are currently omitted.²⁰ Avoided ancillary services costs should be included in PURPA QF rates where QF resources avoid the allocation of ancillary service costs otherwise assigned to the utility by MISO. MISO costs for ancillary services are allocated to each utility on the basis of load. Therefore, ancillary costs avoided by QF resources based on the reduction of load in each utility's service territory should be included in avoided cost calculations.

PURPA QF rates should also include an adder for avoided environmental costs where environmental attributes are conveyed with a purchase, to the extent that such avoided costs are not already embedded in the energy purchase.²¹ The social cost of carbon is an appropriate measure of compensation for avoided environmental costs, in combination with avoided pollutant compliance costs.²² At a minimum, avoided environmental compliance costs must be included to the extent that they are not fully reflected in LMPs. Regardless of what measure of compensation is adopted, QF resources should at least be given parity with treatment of utility generation for purposes of avoided environmental costs, including any that are baked into future forward cost projections used to evaluate new utility-owned generation. There is no credible evidence that utility generation should be treated preferentially.

6. *Should purchase rates and terms be consistent across utilities?*

As indicated in our July 14, 2020 comments, increased consistency across the state is a critical priority. QF rates and the ability to self-supply vary from utility to utility both in terms of their availability to customers and service provisions. This patchwork makes it difficult for

¹⁹ Because QFs differ in their contribution to reducing 12CP peaks due to technology characteristics, the most reasonable method for establishing a rate for avoided transmission costs could be an on-peak adder based on energy delivered during time periods that are most likely to correspond to a monthly peak. The design of an avoided transmission adder should be further explored in subsequent proceedings.

²⁰ As the Staff Memorandum explains, no Wisconsin utilities currently make payments for values other than energy, capacity and transmission. *See id.*

²¹ Whereas, for example, if a carbon adder is included in the MISO energy price projection, then an adder for the avoided cost of carbon might not be needed.

²² The social cost of carbon was originally developed by the U.S EPA for use in federal benefit cost analysis and is used in various states for purposes such as resource planning, including in Minnesota, Colorado, and Washington.

providers to scale their businesses across multiple service territories because each territory is akin to a new market with different rules and standards, some of which may change at the sole discretion of utilities. However, the Clean Energy Advocates would draw a distinction between purchase “rates,” which should vary based on the application of utility-specific costs to a common methodology, and “terms,” which should be standardized across all utilities and include both eligibility for certain tariffs and also elements of standard PURPA QF contracts.

Minimum requirements can hold all Wisconsin utilities to the best practices of their counterparts. For example, WEPCO offers net metering up to 300 kW, and MGE offers annual netting, while most IOUs offer only monthly netting, which substantially reduces the available value of net metered parallel generation.²³ Standardizing these practices, all utilities should be required to offer net metering for parallel generation facilities up to at least 300 kW, with annual netting. Further, all caps on self-supply should be eliminated as there is no demonstrated basis for capping self-supply, which is similar to utility consumption of station power.

In addition, a standard PURPA QF contract itself can utilize a pro-forma PPA containing similar terms across utilities. Common purchase terms that require definition and should be determined upfront include the availability of a self-supply option with the purchase of excess generation by the utility, contract duration, performance provisions (and potential curtailment at high penetrations), size delineations for different contracts and programs, and metering requirements. The PSC should consider requiring pro forma contracts with fixed avoided cost compensation for PURPA QFs that fall under a certain size threshold such as 5 MW. Such contracts facilitate standardization of contract terms, while fixed compensation levels reflect utility-specific avoided costs. Standard contracts with fixed rates are appropriate for small QFs that otherwise could face outsized transaction costs relative to their size and would not effectively compete with larger resources in a procurement context.

As for PURPA QF rates, these may differ based on utility-specific inputs such as the allocation of MISO costs. However, all QF rates should be established under a common methodology comprised of avoided energy rates, capacity rates, transmission rates, ancillary services, and environmental costs.

²³ See Dec. 18 Staff Memorandum at p. 5.

7. *Should parallel generation resources receive purchase rates and terms equivalent to those associated with utility projects?*

Not only do Wisconsin's QF rates fail to fully reflect avoided costs, they are discriminatory. PURPA prohibits discrimination against and disparate treatment of non-utility resources.²⁴ QF resources should be treated equally to utility resources with similar energy and capacity attributes.²⁵ Utility QF rates across the state fail to reflect the requisite parity.

Most Wisconsin utilities unjustifiably value utility-owned capacity with reference to MISO CONE but value non-utility resources by reference to MISO's PRA benchmark. For example, WEPCO values the avoided capacity of the generation it owns with reference to MISO CONE at \$87.17-\$91.86 per kW-year, yet WEPCO values customer-owned QF generation with reference to the PRA, at \$.55-\$3.65 per kW-year.²⁶ These two approaches result in a valuation differential of 2,516%-\$15,849%. The differential is especially marked when the PRA is valued very low, as it has been in recent auctions. Yet the PRA value remains the maximum generation capacity value provided by WEPCO in the price available to customer-owned generation.

Utility justifications for this disparate treatment fall short. From a ratepayer's standpoint, non-utility-owned generation of a specific size and technology provides the same value as an otherwise identical utility-owned unit. The value of generation from intermittent resources, for example, depends on factors such as size, fuel availability and inverter settings. Utility ownership does not correspond to increased generation value. Utility arguments that they must own and control a resource in order to be able to rely on this value are specious. A utility does not dispatch or otherwise control the output of a utility-owned intermittent resource, and contractual performance provisions are the appropriate avenue to ensure that a resource is only compensated for value that it actually delivers.

Some utilities make much of QF accreditation, which is simply an administrative exercise that reflects one side of the value a resource can provide, the supply side. Accreditation may make sense in certain specific cases and should be supported by the IOUs for non-utility-owned

²⁴ See, e.g., *Vote Solar v. Montana Dep't of Pub. Serv. Regulation*, 2020 MT 213A, ¶ 45, 401 Mont. 85, 112, 473 P.3d 963, 977, *as amended on denial of reh'g* (Oct. 6, 2020) (finding that treating utility rate-based generation more favorably, by including a carbon adder used to approve utility rate-based generation but excluding it from QF avoided costs, "is discriminatory to QFs and in violation of PURPA. 16 U.S.C. § 824a-3(b).").

²⁵ As the Staff Memorandum notes at p. 9, "The generally acknowledged purpose of setting an appropriate avoided cost is to create indifference for the utility regarding the source from which it purchases energy and capacity."

²⁶ See Petitioner's Opening Brief at p. 9 and n. 8, *Sierra Club v. PSC of Wisc.*, Case No. 2020-CV-0177, Dane Cty Cir. Ct. of Wisc. (May 15, 2020).

resources.²⁷ However, the emphasis on accreditation ignores the demand-side value of DG, *i.e.*, the fact that ratepayers can rely on the expected generation profile of resource to lower peak demand. In this case, ratepayers can count on the reduction of utility obligations, including the reduction of MISO capacity obligations, based on meeting the utility's projected load demand together with an additional planning reserve margin, as described in Appendix A to the Staff Memorandum.²⁸ Any generation with a profile that will generate within that window should receive credit for providing this reduction in obligations.

The delivery of energy and capacity attributes are controllable and should be governed by tariff or contract terms under a model that pays for performance. Payment for performance of energy and capacity obligations provides parity between utility-owned and non-utility-owned resources and holds ratepayers harmless against instances of non-performance in the same way that the Commission might seek to hold ratepayers harmless from non-performance from utility-owned resources.²⁹ To the extent assumptions (*e.g.*, forward energy price forecasts) need to be adopted in order to develop long-term prudence determinations, such assumptions should be applied universally and without regard to ownership in order to avoid the unjust and discriminatory overvaluation of some resources compared to other resources.

8. *How can purchase rates be set to appropriately allocate costs among customers?*

Properly set purchase rates for PURPA QF resources ensure ratepayer indifference as between QF and utility-owned resources. For this reason, PURPA QF rates do not invoke the questions of cost allocation more generally associated with customer loads. Purchases from QFs are system-level costs properly allocated in the same way that purchases of electricity and capacity from other sources would be allocated. To the extent the Commission wishes to examine the costs and benefits of programs that may use avoided cost pricing as part of their compensation frameworks, any such examination should take place via a comprehensive cost-benefit analysis specific to those programs, which is beyond the scope of this investigation.

Respectfully submitted this 15th day of January, 2021, by:

²⁷ See Dec. 18 Staff Memorandum at p. 15 (describing MGE's justification for offering capacity purchase rates based on MISO CONE on account of the utility's tariff requirements allowing it to use participating systems as accredited capacity to help the utility meet its MISO capacity obligations).

²⁸ See *id.*, Appendix A at p. 4.

²⁹ For instance, when approving utility-owned resources the Commission could establish terms of the approval that mandate achievement of the benchmarks underlying the determination of whether a resource is in the public interest (*e.g.*, the capacity factor of a solar resource).



Tim Lindl, Keyes & Fox LLP
Melissa Birchard, Keyes & Fox LLP
Justin Barnes, EQ Research, LLC

Keyes & Fox LLP
580 California Street, 12th floor
San Francisco, CA 94104
Phone: (510) 314-8385
E-mail: tlindl@keyesfox.com
mbirchard@keyesfox.com
jbarnes@eq-research.com

Counsel and Consultant to RENEW
Wisconsin

/s/ Bradley Klein

Bradley Klein, Senior Attorney

Environmental Law & Policy Center
35 E. Wacker Drive, Suite 1600
Chicago, IL 60601
Phone: (312) 673-6500
E-mail: bklein@elpc.org

/s/ Will Kenworthy

Will Kenworthy
Regulatory Director, Midwest

Vote Solar
332 S. Michigan Avenue, 9th Floor
Chicago, IL 60604
Phone: (704) 241-4394
E-mail: will@votesolar.org

/s/ Michael Vickerman

Michael Vickerman
Policy Director

RENEW Wisconsin
214 N. Hamilton St.
Madison, WI 53703
Phone: (608) 255-4044 x2
E-mail: mvickerman@renewwisconsin.org

/s/ Scott A. Blankman

Scott A. Blankman,
Director of Energy & Air Programs

Clean Wisconsin
634 W. Main Street, Suite 300
Madison, WI 53703
Phone: (608) 251-7020 x 27
Email: sblankman@cleanwisconsin.org