

STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE THE IOWA UTILITIES BOARD

REQUEST FOR INVESTIGATION OF
UTILITY AVOIDED COSTS

DOCKET NO. INU-2014-0001

REQUEST FOR INVESTIGATION

In accordance with the Final Orders of the Iowa Utilities Board (Board or IUB) in *Interstate Power and Light Co.*, Docket No. EEP-2012-0001 (Dec. 2, 2013) and in *MidAmerican Energy Company*, Docket No. EEP-2012-0002 (Dec. 16, 2013), approving the proposed resolution of Issue 22, Avoided Costs, the Office of Consumer Advocate (OCA), a division of the Iowa Department of Justice, submits the following request for investigation:

PROCEDURAL HISTORY

1. The Board's Final Orders in Docket Nos. EEP-2012-0001 and EEP-2012-0002 addressed the settlement agreements filed concerning the energy efficiency plans (EEPs) filed by Interstate Power and Light Company (IPL) and MidAmerican Energy Company (MEC). Pursuant to the settlements filed in each case, the parties joining in settlement of the avoided cost issue agreed to file, singularly or jointly, on or before January 15, 2014, a request for investigative proceeding before the Board to address the issue of avoided cost in more detail. The Board agreed that it is appropriate to continue the discussion of avoided cost and approved the proposed settlement of this issue. The Board directed the parties joining in this part of the settlement to 1) specify the issues they intend to address that have not already been addressed in either the above-captioned tariff proceeding or the IPL energy efficiency plan proceeding, 2)

specify their respective ongoing concerns, and 3) propose solutions for discussion that would address their concerns.

2. On July 10, 2012, IPL proposed revisions to its Cogeneration and Small Power Producers–Distributed Generation (CSPP) Tariff standard rates for purchases of energy and capacity from qualifying renewable energy facilities (QFs) with a capacity of 100 kW. The revisions flow from IPL’s updated biennial Report of Electric Utility System Cost Data filed on June 29, 2012, in accordance with the Public Utility Regulatory Policies Act of 1978 (PURPA), Section 210, and 199 IAC 15.5(3). On August 23, 2012, IPL submitted further updates to its avoided cost data and proposed further revision to its avoided cost rates for small QFs. OCA filed a conditional objection to the proposed tariff and the Board docketed IPL’s proposed tariff, TF-2012-0546, for further investigation.

3. Based on its review of IPL’s avoided cost tariff filing, OCA determined that IPL’s proposed CSPP tariff revisions and PURPA avoided cost tables generally conform to the avoided cost methodologies approved in *Midwest Renewable Energy Projects LLC v. Interstate Power and Light Co.*, IUB Docket No. AEP-05-1. (Docket No. TF-2012-0546, OCA Status Report, ¶ 6 (Sept. 12, 2012)). Noting that energy efficiency and renewable energy resources demonstrate functionally similar efficiency attributes, OCA argued that the avoided cost methodology for these resources should be consistent unless there are demonstrated reasons for variance. (OCA Status Report, ¶¶7, 9). IPL’s PURPA avoided cost methodology is generally consistent with the methodology employed for energy efficiency programs. OCA, however, noted some differences and recommended that these issues be further considered in the upcoming EEP proceedings. (OCA Status Report ¶¶ 8-9). OCA argued that working toward a common avoided cost methodology for energy efficiency and renewable energy programs offered by Iowa’s rate-

regulated utilities would be administratively efficient and promote Iowa policy by reducing questions and concerns over periodic avoided cost filings, facilitating stakeholder understanding of applicable avoided cost rates, and thereby helping encourage both energy efficiency and renewable energy resources. (OCA Status Report, ¶ 9).

4. On August 3, 2012, MEC filed a revision to its Small QF tariff. The revisions flow from MEC's biennial Avoided Cost Report filed on June 28, 2012, in accordance with the Public Utility Regulatory Policies Act of 1978 (PURPA), Section 210, and 199 IAC 15.5(3). On August 15, 2012, MEC filed supplemental data in support of its proposed avoided cost rates. In accordance with IUB requests for information, MEC filed additional information on September 13 and October 4, 2012. On October 23, 2012, OCA filed a response to the proposed tariff noting several areas of concern. First, MidAmerican's Avoided Cost Reports took different approaches in factoring in planned wind additions in the avoided energy cost forecast. (Response ¶ 4). Second, MidAmerican relied on market capacity prices in the short term, and then trended long-term avoided capacity costs based on the cost of a peaking plant, which differs from conventional "peaker" methodology used for estimating avoided capacity costs used to screen cost-effective energy efficiency programs. (Response ¶ 5). Third, OCA noted concerns that MidAmerican's avoided cost methodology apparently varied from relevant guidance on PURPA avoided cost rates in *Midwest Renewable*, Docket No. AEP-05-1. (Response ¶¶ 7-9). Finally, OCA pointed out that MEC's PURPA avoided cost methodology does not consider any of the factors specified to be considered in avoided cost calculation in 199 IAC 35.9(7) or avoided transmission and distribution costs that are incorporated in deriving energy efficiency avoided cost. (Response ¶ 11). The Board docketed MEC's proposed tariff revision, TF-2012-0574, for further investigation.

5. In both of the underlying tariff dockets, OCA recommended consideration of the foregoing avoided cost methodology issues as part of the utilities' energy efficiency proceedings because utility avoided cost is an essential component of the EEP proceedings and the Board's EEP rules call for detailed avoided cost information to be filed in conjunction with EEP proposals. On December 3, 2012, the Board issued an order directing the parties in the pending avoided cost tariff dockets to submit responses to questions concerning avoided cost determinations for PURPA QFs and energy efficiency. OCA submitted its response on January 15, 2013.

6. Board rules direct the rate-regulated utilities to engage in collaborative development of energy efficiency plans. 199 IAC 35.6(1). The collaborative process leading up to IPL and MEC's most recent EEP filings did not include the matter of avoided costs. IPL submitted its proposed EEP for years 2014 through 2018 on November 30, 2012. On December 26, 2012, the Board docketed IPL's EEP and IPL directed to file additional information or before January 15, 2013, including more detailed avoided cost information. MEC filed its proposed EEP for years 2014 through 2018 on February 1, 2013. The Board docketed the filing on February 27, 2013, and ordered MEC to file additional information, including more detailed avoided cost information, which MEC provided on February 26, March 19, and April 3, 2013. In its Final Orders in each case, the Board indicated its intent to schedule a meeting with all investor-owned utilities and interested stakeholders to discuss filing requirements for the next energy efficiency plans approximately 18 months in advance of the first scheduled plan filing. This will help assure that future plan filings include all necessary information and thereby reduce the problems that arise when substantial additional information is filed after the initial EEP submission.

7. OCA did not fully agree with IPL's avoided cost methodology used in its EEP and OCA witness Dr. Shi recommended specific adjustments to IPL's avoided cost determinations. Likewise, Dr. Shi and OCA witness Munoz took issue with some aspects of MEC's avoided cost methodology used in its EEP and recommended specific adjustments to MEC's avoided cost determinations. Avoided capacity and energy costs are used to calculate the benefit-cost ratio, or cost effectiveness, of energy efficiency measures and programs. OCA utilized a sensitivity analysis to evaluate the impact of higher avoided cost determinations on the utilities' proposed plans. OCA ultimately reached settlement with IPL and MEC on most elements of their proposed energy efficiency plans, including steps intended to enhance program performance and/or ongoing review of measures and programs that did not demonstrate strong cost-effectiveness results. Consequently, OCA concluded that it was not necessary to litigate avoided cost in the EEP proceeding and joined in the EEP settlement calling for the further evaluation of avoided cost through an investigatory proceeding before the Board. Apart from limited areas of apparent agreement as indicated through Company rebuttal testimony, most avoided cost issues identified by OCA witnesses were not specifically resolved as part of the EEP settlements and therefore remain for review in this investigatory proceeding.

ONGOING CONCERNS

8. Avoided cost, while important, is not necessarily deterministic of whether an energy efficiency measure or program will continue or be promoted through ratepayer funded energy efficiency programs. The EEPs typically take a flexible approach toward addressing programs and measures with borderline cost-effectiveness characteristics. Therefore, it is frequently the case that OCA can agree to disagree about certain aspects of underlying avoided cost methodology. Although the parties were able to reach resolution of the utilities energy

efficiency plans, OCA believes that further study of avoided cost methodology is warranted and will be beneficial for ongoing program/measure evaluation, stakeholder understanding, and future energy efficiency plan development. Likewise, the study and determination of consistent avoided cost methodologies in the establishment of purchase rates from PURPA QFs will be useful in helping fairly encourage the future development of renewable energy resources.

9. As a result of the underlying tariff proceedings and EEP filings, OCA witnesses Shi and Munoz identified the following guiding principles as useful in guiding the review of avoided cost. These principles reflect areas of potential common ground based on the responses submitted in the underlying tariff and energy efficiency and dockets. The INU will be useful in allowing deeper exploration of the parties' interpretation and application of such principles in the avoided cost analysis that necessarily accompanies PURPA tariff development and EEP proposals.

Consistency in core avoided cost methodology as an overarching objective, with the following considerations advancing this overarching goal:

- Inputs/assumptions or core analysis are periodically subject to rigorous review
- Timely updates to changed costs and benefits in avoided cost analysis
- Consistency in marginal avoided energy cost analysis between EE and PURPA, unless differences are justified
- Clarity regarding PURPA avoided cost adjustments that will be routinely considered and adjustments that may be warranted in appropriate circumstances
- Avoided cost rates for negotiated PURPA contracts should reflect unique attributes of the resource
- Avoided cost rates for negotiated PURPA contracts should consider market price for resource
- Clarity about PURPA contract options

OCA commented on these issues in greater detail in the underlying tariff and energy efficiency dockets leading up to this INU proceeding and will briefly explain how these items might be evaluated in the INU proceeding.

10. **Consistency in core avoided cost methodology:**

The avoided cost for the EEP is calculated using the same methodology as is used in avoided cost calculations for small QFs, except the increment may be adjusted to reflect different sizes of QFs. When performed in the same general time period, modeling analysis of energy efficiency, renewable energy, and other resource options should use the same assumptions, future economic projections, and load forecasts.

Consistency in methodology for calculating both PURPA QFs buy-back rates and EEP avoided cost should foster better promotion of distributed generation and energy efficiency in the state. By using a consistent avoided cost methodology that recognizes the value and attributes of renewable generation, we should achieve a proper value for customer-side renewable generation that advances public policy support for renewable energy resources for distributed generation. The INU proceeding will be useful to determine whether certain variances in methodology, as revealed through the underlying TF and EEP dockets and briefly described in the foregoing procedural summary, are warranted. Within this overarching issue, the following sub-issues will be useful in further defining this objective:

a. Inputs/assumptions or core analysis are periodically subject to rigorous review

Model methods, inputs, and assumptions (*e.g.*, the inclusion of committed resources and criteria, sources for costs, forecasts, and growth rates) can be thoroughly reviewed in periodic energy efficiency cases and on occasion as ratemaking principles or Alternative Energy Pricing proceedings arise. As exemplified by the additional information needed in connection with the recently decided energy efficiency plans, it will be important to assure that such filings and pre-filing collaborative processes incorporate appropriate information to allow such review.

Although the IUB does not have a formal integrated planning review process (IRP) for regulated electric utility, the IRP is necessarily involved in dockets where the IUB is asked to approve long-term resource proposals. A rigorous review should include consideration of whether inputs and assumptions are up-to-date, accurate, and well founded. OCA believes that avoided energy costs are better reflective of resource cost when they are calculated on the basis of fully committed resources that will be in service within the PURPA reporting year in question. In addition, other material changes in long-term planning assumptions resulting from plans to meet environmental regulations, such as updated emission plan and budget, should also be captured in this analysis. If a utility's long-term resource planning process employs unique energy cost forecasts to evaluate major resource acquisitions, arguably these same forecasts are relevant to long-term acquisitions of renewable and energy efficiency resources.

b. Timely updates to changed costs and benefits in avoided cost analysis

Circumstances that cause material changes in these modeling inputs and resulting avoided costs will typically give rise to updated modeling analysis that would be applicable to evaluating energy efficiency, renewable energy, and other resource options. For renewable resources, these changes would be reflected in the utility's biennial PURPA filings. For energy efficiency, a material change in avoided cost, for example, if larger than 10–20%, arising outside of the contested case energy efficiency process, would result in an updated screening of energy efficiency programs to consider whether program changes are warranted.

Numerous factors can impact the inputs and results of avoided cost modeling. Examples include: a dramatic change in natural gas or coal prices and price forecasts, changed prospects for carbon dioxide regulation, changes in environmental regulations that affect the compliance regime for regulated emissions.

c. Consistency in marginal avoided energy cost analysis between energy efficiency and PURPA, unless differences are justified

Energy savings from energy efficiency and renewable energy occurring at the same time of day and season displaces the same marginal kWh for avoided cost purposes. This builds on the consistent methodology recommended in the overarching Principle while also taking account of the common marginal cost standard that guides the determination of avoided cost for renewable energy and energy efficiency.

d. Clarity regarding PURPA avoided cost adjustments that will be routinely considered and adjustments that may be warranted in appropriate circumstances

Avoided cost determinations for PURPA purchases in excess of 100 kW should include adjustments for avoided demand losses and capacity reserve margin savings, and should evaluate on a case-by-case basis appropriate adjustments, if any, for avoided transmission, distribution, and externality costs. These adjustments are somewhat less important for the smallest QFs, because most can take advantage of net billing.

In addition, OCA believes there should be greater consistency in the adjustments to the avoided costs that are applied as part of the energy efficiency proceeding. OCA witness Shi noted some differences in approach between the utilities in his EEP testimony.

e. Avoided cost rates for negotiated PURPA contracts should reflect unique attributes of the resource

OCA believes that the avoided costs for PURPA purchases in excess of 100 kW should reflect the capacity and energy profile of a given resource. The point at which standard offer purchase rates give way to more precise resource-specific calculations and avoided cost negotiations should be defined.

For QFs with design capacity of 100 kW or less, administratively determined standard offer rates reduce transaction costs to the QF and utility, and provide an efficient approach to

determining avoided cost rate. In addition, most QFs with design capacity of 100kw or less utilize net metering and administratively determined avoided cost rates. Large QFs rely primarily on negotiated rates. However, because large QFs rely on PURPA rates as the basis for negotiations, the base methodology for large QFs should be the same as for small QFs. The determination of a standard offer rates could be expanded to larger facilities so that larger QFs could also take advantage of administratively determined purchase rates.

For short-term “as available” energy payments, market rates serve as the primary basis for establishing rates. However, most QFs larger than 1 MW (which involve significant capital investment) would not find market-based rates for standard purchases a viable option. Most QFs, particularly ones larger than 500 kW that exceed the net billing size limit, will elect long-term contract arrangements. Long-term avoided costs for QF delivery of energy and capacity over a specified term, pursuant to a legally enforceable obligation, are appropriately determined on the basis of a long-term avoided cost forecast, such as an IRP process or a proxy embedded cost method in combination with long-term market forecasts.

- f. Avoided cost rates for negotiated PURPA contracts should consider market price for relevant resources

Avoided cost determinations for PURPA purchases in excess of 100 kW should consider the market value for that particular type of resource, and should be guided by the market value when the utility seeks to procure resources of the same type. As an alternative or supplement to a PROMOD or other resource planning simulation model, consideration of prevailing market prices of a particular resource may be used to establish a proxy-based avoided cost benchmark for PURPA purchase rates. The “proxy embedded cost” method specifies a generating plant that represents the generation-avoided cost when alternative plants are introduced. In this method, the plant characteristics must be similar to the characteristics (*i.e.*, size, duty cycle, and

generation profile) of the alternative resource under consideration. This method is appropriate because it reflects the characteristics, attributes, and levelized market costs that a utility would pay for procuring that same resource while simultaneously matching the economic value to the utility and the QF's resource cost. A proxy method may be particularly appropriate for utilities that evaluate energy demand and benefits beyond their own native system needs when evaluating new energy resources. For utilities in this situation, a traditional avoided cost analysis may be too narrow.

The proxy cost method, as a supplement or alternative methodology of establishing QFs' buy-back rates, would produce greater transparency because its economic value and cost (based on a specific busbar or a unit cost) will be public information that is not subject to manipulation, alteration, or dispute by the utility and/or any other affected parties.

g. Clarity about contract options

Customers may select short term, as-delivered, or longer-term levelized avoided cost based PURPA rates for PURPA mandated transactions. A clear path for considering these alternatives and the associated rate guidelines should be available for prospective QFs to consider.

RESOLUTION

11. The Board has jurisdiction and authority to investigate and offer guidance on avoided cost principles that should guide energy efficiency programs and renewable energy rates. Iowa Code §§ 476.6(14) (2013); 16 U.S.C. § 824a-3. Although FERC promulgated the general scheme and rules for avoided cost based purchase rates from QFs, it left the actual implementation of PURPA to the state regulatory authorities. FERC regulations grant the states latitude in implementing the regulation of sales and purchases between QFs and electric utilities.

Federal Energy Regulatory Commission v. Mississippi, 456 U.S. 742, 102 S.Ct. 2126, 72 L.E.2d 532 (1982).

12. OCA seeks a resolution for its ongoing concerns regarding the proper avoided cost methodology that would generally be in line with the aforementioned principles while simultaneously achieving greater consistency in avoided cost methodology for PURPA buy-back rates and energy efficiency planning. The INU offers an opportunity for the Board to consider input and offer guidance regarding the principles, methodologies, and considerations that may or should guide avoided cost determinations for energy efficiency and renewable energy.

13. Alternatively or additionally, OCA would recommend that EEP dockets take up avoided cost in more details for those parties interested as part of the collaboration process and include greater avoided cost supporting detail in the actual plan filing. This will allow more opportunity for review, issue development, input, and resolution in conjunction with the Energy Efficiency Plan filing.

14. The Board has previously opened investigatory proceedings to evaluate generation resource planning of Iowa's investor-owned electric utilities. *In re: IES Utilities Inc., Interstate Power Co. and MidAmerican Energy Co.*, Docket Nos. INU-00-4, INU-00-5, "Order Closing Docket No. INU-00-4, Expanding Investigation in Docket No. INU-00-5, and Requiring Additional Information" (Sept. 8, 2000). An investigatory process may be particularly appropriate for issues that are difficult to fully address through more routine proceedings. *In re: Interstate Power and Light Co.*, Docket No. INU-2011-0001, "Order Initiating Audit," p. 1 (IUB, Feb. 25, 2011). Avoided cost issues are connected to the generation resource planning of Iowa's investor-owned utilities and have been difficult to assess in detail in appropriate proceedings.

The development of guidance on principles, appropriate methodology, and relevant considerations through this investigation will be useful in future reviews of avoided cost.

Respectfully submitted,

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