



that provide wholesale electric service to their distribution cooperative members and certain municipal cooperative associations in the state of Iowa.

## **I. INTRODUCTORY COMMENTS**

Upon IAEC's review of the Order and the Staff Memo, the IAEC presumes the proposed policy goal is specific to net-metering although the statement does not mention net-metering. The Board's policy goal would affect all utilities in Iowa including the members of the IAEC; however, the impact on the IAEC's members could be direct or indirect depending upon their rate setting authority. All but one of the IAEC's members are not subject to the Board's rate regulation authority; accordingly, any consideration of net-metering standards by most of the IAEC members has been or is being completed by the member's local governing board.

The IAEC suggests that net-metering, as currently defined and administered through the Board, through tariffs or through the rules, is not a sustainable long term concept if the state experiences a significant increase in penetration of distributed generation ("DG") in the marketplace without appropriate changes to current net-metering practices or changes in rate design. The economics of distributed generation, as it is implemented in today's utility environment, may not be appropriately considered with the current net-metering standards and current rate design.

From a public policy perspective, policy makers should be very careful in funding incentives for renewable energy through the utility rate structure. Funding of incentives for renewable energy through the rate structure, such as net-metering or rebates, will have different impacts on different customer classes than if those incentives were funded through the income tax structure, replacement property tax structure, sales tax structure or an alternative mechanism. It is a challenge to determine how low income consumers and those with limited resources can

benefit and participate in distributed generation. The Board will need to consider how participation by some consumers may impact these non-participating consumers. It is possible that low income customers will bear more of the burden of paying for those incentives under current utility rate structures, as cost recovery in a net metering environment may be shifted to those who cannot afford to install their own generation. Any mandating of funding incentives in electric utility rates provides a regressive approach and will likely impact low-income users more than other approaches.

The IAEC encourages the Board to evaluate any policy revisions related to net-metering rules in light of the principles outlined in the Critical Consumer Issues Forum (“CCIF”) Policy Considerations. The CCIF principles were included in the IAEC’s initial comments. The IAEC members, most of which have the ability to establish their own policies and rates, developed a set of Guiding Principles Related to Distributed Energy Resources or Distributed Generation Policies as previously filed in this Docket on February 26, 2014. IAEC members state-wide utilize these principles and those set forth in the CCIF Policy to guide their decision-making. Using these principles, the IAEC offers the following additional remarks.

## **II. RESPONSES TO QUESTIONS CONTAINED IN THE ORDER**

### **1. *The Board has offered the following proposed policy goal for comment:***

***“To provide a regulatory framework that allows distributed generation to grow in an equitable manner that balances the interests of regulated utilities and all utility customers.”***

### **IAEC RESPONSE:**

The Board has asked interested parties to comment on the advantages and disadvantages of the Board adopting such a policy goal. At a high level, the IAEC generally perceives the following advantages and disadvantages of the proposed policy:

#### Advantages:

- Enhances customer choice.
- Appears to provide reassurance that utilities and customers will be equitably treated, including utilities.
- A written policy offers increased clarity to all stakeholders regarding the Board's expectations for utilities, utility users and others.
- Implies that current net-metering options may need to be revisited, including a shift in policy to allow payment for avoided generation costs only in order to ensure the recovery of delivery costs which are fixed, some of which may be recovered in a variable rate charge today.

#### Disadvantages:

- Increases uncertainty for utility investment without direct information about recovery of sunk fixed costs or new investment costs.
- Appears broadly to favor DG customers over non-DG customers.
- Some stakeholders may view the Board's efforts to adopt a net-metering policy as being outside of the Board's role.
- The written policy may not accurately depict the Board's ultimate goal since it raises several questions such as the following:
  - How does this policy fit into existing rate making rules without undertaking a separate rulemaking proceeding?

- In what context will the policy be applied; ie. Board orders, tariff reviews, formal complaint proceedings?
- The policy uses the phrase, “grow in an equitable manner” which raises a question about how equity is measured; would it include economic considerations such as the cost of solar generation per kW versus the cost of gas generation per kW, for example?
- Does “grow in an equitable manner” mean the state policy is to grow all forms of distributed generation equally thereby ensuring the same incentives are provided for small scale wind generation, as an example, as are available for solar generation?

As the IAEC offers its input on a more granular level, it notes that in the Order, following the statement of its proposed policy goal, the Board further indicates that “The Board must balance equity concerns while allowing for potential distributed generation growth. In balancing these interests, both short-term and long-term options for such things as net-metering must be considered.” This statement raises several questions about the intentionality in proposing such a policy. The IAEC notes that while the Board’s policy on alternate energy production facilities is intended to encourage the development of such facilities, the subject policy goal narrowly promotes distributed generation. Plain reading of the policy shows that customer owned distributed generation, which is a subset of alternate energy production, is given heightened focus. The IAEC would suggest that this particular policy does not account for utility-owned renewable generation and that one form of alternate energy production should not be promoted over another. A shortcoming of this policy is that in light of the Board’s efforts to promote renewable energy, it unnecessarily limits its scope. Iowa state policymakers recently passed

legislation (HF 645) that includes a carve out within the solar tax credits specifically for utility owned renewable generation. The proposed policy goal uses the term “equitable,” but does not include a definition. From the IAEC perspective, policy considerations regarding equitably balancing diverse interests requires a look at the economics of the utility business model as well as the new market participants, including the distributed generation lessor. This policy statement is wide ranging, opening the door to potential changes in the utility business model that may be positive or negative.

The IAEC directs the Board to the ratemaking principles in 199 IAC 20.10 for guidance in considering any policy revisions to address equitable regulatory treatment. The rules adopted by the Board in 199 IAC 20.10 state that standards for ratemaking shall apply to all rate-regulated utilities in the state of Iowa and these standards are recommended to all service-regulated utilities in this jurisdiction. The first issue put forth in 199 IAC 20.10 is the cost of service: “Rates charged by an electric utility for providing electric service to each class of electric consumers shall be designed, to the maximum extent practicable, to reasonably reflect the cost of providing electric service to the class.” Charges for services, including rates for alternate energy facilities, are required to be reasonable and just. *See* Iowa Code §§ 476.8, 476.43. The principles provided in 199 IAC 20.10 reflect the Board’s efforts to meet its legislative requirement to balance the interests of customers who are situated differently within the utility’s service territory and fairly allocate costs to all customers. *See* Iowa Code §§ 476.5, 476.43.

The Board’s Order offers a specific policy goal which contrasts with the intent of the established ratemaking principles, in particular, the Board’s proposed policy seeks to balance the interests of regulated utilities with the interests of all customers, rather than balance the interests

of differently situated customers. In the context of net-metering, the Board's current rules are intended to balance the interests of customers who select to have part of their electric service requirements fulfilled with distributed generation that they own or lease versus the interests of customers who opt to procure all of their electric needs from their electric utility. The IAEC suggests the Board give additional consideration to the purpose of the proposed policy goal and evaluate the present stated balancing objective as it compares to the Board's long held policy of balancing diverse customer interests.

The IAEC further asserts that a disadvantage of the policy goal, as it is drafted, is that it is too broadly written. To the extent the policy goal intends to include all utilities and all utility customers, the IAEC directs the Board to its general responses regarding net-metering and the jurisdictional limitations related to the same. Based on the IAEC's review of the Staff Memo, it does not appear to be the Board's intent to apply a net-metering policy to utilities that set their rates locally. The IAEC would ask the Board to be clear about its policy application and explain whether it includes service-regulated utilities who establish their own rates and customers of said utilities or if the scope is limited to rate-regulated utilities and their customers. The IAEC's initial comments included a discussion of regulatory and judicial decisions dealing with jurisdiction. Without repeating the entirety of said discussion, the legal precedent supports the IAEC's position that the Board's jurisdiction over net-metering practices for IAEC members is limited to that which has been articulated by the courts. PURPA pre-empts the Board from regulating non-rate-regulated utilities in their relationships with qualifying facilities with the exception of engineering and safety considerations.

The IAEC believes the proposed policy should be analyzed in light of the existing policies and incentives related to net-metering. The IAEC's initial comments included a list of

numerous state and federal incentives that have been put in place to help advance renewable generation. There has been a great deal of legislative, administrative and judicial action taken with respect to utilities, alternate energy production facilities, and their respective obligations. Any proposed net-metering policy should recognize the basket of incentives that already exist. The recent increase in penetration of distributed generation in Iowa is clear evidence that the portfolio of mechanisms are working without adding any additional economic incentives. The development of customer owned generation has grown to a point where the individual or entity may be able to invest in distributed generation with little capital at risk.

Because the policy goal indicates that the Board seeks to “encourage” distributed generation, which is implied by its statement that it “must allow” for distributed generation growth, the Board must frame the decision making of all parties by ensuring the economics of choosing distributed generation are fully inclusive of the need for utilities to recover both sunk and potential new distribution infrastructure costs and consider the positions of the non-participating customers from increased rates due to customer adoption of DG.

2. *Would it constitute a “sale” if the Board were to determine that at the end of each year, unused kWh credits are to be diverted and used for a special cause?*

**IAEC RESPONSE:**

Customers with distributed generation that produce more energy than the customer can consume will undoubtedly want to sell the excess output or receive another form of benefit for the value of that energy. The Board’s current net-metering standards do not provide for a purchase or sale of energy, but rather the customer experiences a netting of kilowatt hours on his/her electric bill which is carried over to the following billing period and reduces the total number of kilowatt hours consumed on the subsequent bill. The Staff Memo correctly highlighted the legal concerns raised by IAEC in its prior comments which assert that the

lawfulness of a cash-out option could be challenged if the Board were to include such an option as part of net-metering because it would change the nature of the transaction.

The Staff Memo offers only a general overview about how the Board might offer a quasi-cash-out option. It states that the Board would divert the customers' generation in excess of consumption accumulated during the previous year and that it would be used for a special cause, such as a low-income customer assistance fund. The proposed approach raises questions about the voluntary or mandatory nature of the diversion of credits. The customers' excess generation at the end of the year remains the property of the customer. Would the Board require the utility to take the customers' unused credits or would the Board's approach allow customers to voluntarily donate their excess credits to the special cause?

The IAEC notes that the general policy in Iowa is to size the eligible net-metering facility to the customers' annual consumption. The net-metering already rewards customers for self-generating at those times when the generation exceeds their electric needs. Net-metering would be unnecessary if the generation matched the customer's load at the time of production. The Board should be cautious not to set net-metering policies that encourage DG consumers to build more than they need and that could result in unnecessary utility infrastructure. Further, it is unclear how any donated excess would be diverted to another customer. Would it be a cash value transfer or does the Board contemplate an actual energy (kWh) transfer? If the latter, then the issues the IAEC has previously raised regarding virtual net-metering surface, including potential violations of exclusive assigned service territory laws, accounting issues if two different utilities were involved, and challenges in determining an adequate compensation to the utility for the DG customer's use of the distribution system where the DG facility is located distant from the load.

3. ***Since the net-metering facility size cap and carry-over provisions were established through settlements between the investor-owned utilities and the Office of Consumer Advocate, a division of the Iowa Department of Justice, should any changes to those provisions be addressed via a rule-making docket or through modification of the tariff provisions, or does the forum matter?***

**IAEC RESPONSE:**

The limitation on size cap resulted from a settlement of a dispute concerning the lawfulness of the net-metering requirement. The IAEC comments that the forum for modifying the size cap and carry over provisions could matter if the forum allows the Board to take into account individual impacts on utilities in a positive and constructive manner. However, if the purpose of using a different forum for this type of policy setting is to expand the application of net-metering principles to service regulated utilities which are not rate-regulated, the IAEC notes the limitations of the Board's jurisdiction in proposing net-metering rules for electric cooperatives and municipal utilities. As explained in the IAEC's prior comments, under PURPA, those utilities whose rates are not regulated by the Board have the responsibility and authority to implement their PURPA obligations and establish the manner in which said obligations shall be satisfied.

4. ***If the Board decides to change the cap for eligible net-metered facilities, one option would be to allow customers to net meter 110 percent of their average annual electricity consumption up to 1 MW or 2 MW. Comment on the short-term and long-term financial impact such a change would have on non-DG customers and the utilities. Would this have an impact on grid reliability? Would it impact the way utilities do their resource and system planning? Identify any other concerns associated with this change.***

**IAEC RESPONSE:**

Generally, the IAEC would note that the financial impact of net-metering can vary from utility to utility depending upon the utility's rate design and rate structure; the Board's jurisdiction; assigned electric service areas; types of customers served; size of electric utilities; time period of peaking and other parameters.

With respect to the specific suggested changes, the IAEC would note that the financial impact of changing the cap for eligible net metered facilities cannot be estimated without data showing the number of kilowatt hours consumed instantaneously as compared to the kilowatt hours which are netted. For example, one qualifying facility may immediately consume 95% of its output and net the remaining 5%. Meanwhile, another qualifying facility may only consume 50% of its output instantaneously, thereby netting the remaining 50%. The two scenarios present different financial impacts for the utility provider and this difference shows that one size does not fit all. The cap for eligible facilities depends on who is consuming, when the energy is consumed, and how much the facility is oversized.

Where there is increased distributed generation, grid reliability and resource planning challenges may exist. A larger size cap for eligible net-metering facilities adds to the potential for negative impacts on reliability. Concerns arise if circuits get over loaded. Balancing and scheduling of generation resources can be difficult and this is especially true with larger intermittent types of generation resources or several small intermittent types of generation resources on the same portion of the electric distribution grid. Power quality issues such as harmonics could become more significant with the addition of more or larger distributed generation facilities on the distribution grid.

Generation facilities that are customer-owned, like utility-owned facilities, must also comply with all applicable national, state and local electrical codes and standards. Whether a facility is net metered or not, it is subject to the same electrical power quality standards. IAEC believes the Board's power quality and harmonics standards and requirements are applicable to net metering customers no matter the facility size.

The IAEC notes another downside to increasing the cap size. Where the policy promotes more distributed generation at the customer site, it may lead to additional stray voltage problems. The IAEC encourages the Board to keep stray voltage concerns in mind as the Board considers the proposed policy.

In 199 IAC 20.5(2), the Board already adopted IEEE standards and recommended practices and requirements to address electric power quality and harmonic control in the power system. The Board's rules are relevant to interconnection costs for alternate energy facilities which influence the financial impact of the proposed net metering policy. In some cases, on-site distributed generation requires upgrades from single phase to three phase circuits or possibly a direct connection to the transmission grid if the feeder line cannot absorb the extra load. Under Iowa's current interconnection practices, the DG customer is responsible for these costs including engineering studies and equipment upgrades needed to comply with IEEE standards. *See Iowa Code § 476.43(6)*. The IAEC supports continuation of the Board's current policy related to the allocation of interconnection costs.

The IAEC also notes that an increase in the size cap from the current 500 kW is likely to have varying financial impacts as it relates to the rate-regulated utilities and in turn, it could have potentially more impact on resource system planning for a smaller rate-regulated utility such as Linn County Rural Electric Cooperative.

Much has been written about the "duck curve" particularly with respect to higher penetration states of California and Hawaii. The duck curve essentially demonstrates that anticipated and demonstrated changes to the load shape typically show load dropping steeply after solar systems become active during the day and load increasing steeply as solar output drops off. Concerns for reliability occur during the significant changes in load, requiring fast

response generation or other system equipment to ensure the all customers have power. Planning for these changes in load will likely impact resource system planning for all utilities and particularly for a smaller cooperative utility. The potential system solutions will need to be identified and may require equipment modification or new construction to be successful.

5. *Propose options to address long-term net-metering options as discussed in Option 3 in the staff memorandum, such as exploring the issue in the context of a rate case. These options should identify the associated advantages and disadvantages and also allow for the growth of DG while balancing the interests of the regulated utilities and all utility customers.*

**IAEC RESPONSE:**

To the extent the Board inquiry suggests exploration of long-term solutions within the context of a rate case, the IAEC interprets this approach to apply only to rate-regulated utilities. If net-metering issues are further investigated in a rate proceeding, the IAEC presumes the impacts will be evaluated in light of the rules and standards already in place as provided by Chapter 20.10, including cost of service standards. Any consideration of an appropriate net-metering policy must take into account the existing rate structure and potential concerns for a utility's ability to recover costs from its customers in an equitable manner.

The Board's current approach in addressing net-metering through tariffs allows them to take into account the uniqueness of each utility and how that utility is impacted. The tariff approach appropriately recognizes the differences in net-metering policy because net-metering will impact electric utilities differently. The IAEC notes that the impact of net-metering can vary from utility to utility depending on the characteristics of its electric service territory. Some rural utilities may have lower density which causes rates to be higher than more populous areas. The utilities with service territories with widely dispersed consumers, coupled with access to bountiful wind resources experience more penetration of small scale wind than if the utility is in

a rural area with less wind and higher density and lower rates. Net-metering policy alternatives will impact the finances of different utilities in different ways.

6. ***Propose options that could be implemented as net-metering pilot projects as discussed in Option 4 of the staff memorandum. Identify the advantages and disadvantages associated with each potential project. For each potential pilot project provide detailed elements including, but not limited to, the goal of the project, timelines, eligible participants, responsibilities of the utility and participants, potential impacts on non-DG customers, an explanation of how the proposal meets the specific needs of the utility, how each option would meet the objectives expressed in the draft policy goal, and possible results.***

#### **IAEC RESPONSE:**

The IAEC would suggest that the Board examine and provide additional rationale for its recommendation to implement Option 4 of the Staff Memo. Is the recommendation based on the belief that the utilization of net-metering provides appropriate incentives for the promotion of renewable generation? The IAEC suggests adoption of pilot projects in any form has potential to add administrative burdens to the policy process and prevent the regulatory environment from keeping pace with the quickly evolving generation technology. Proper policy should send clear signals to the marketplace. In the event that multiple policy alternatives co-exist as pilot projects that are studied at length, the increase in penetration of distributed generation will create a significant challenge for utilities to meet and maintain customer service standards.

If pilot projects are explored, the IAEC recommends timelines be adopted that are suitable for a quick moving market. If a pilot net-metering option involves a modification to rate design, the Cooperatives believe that the non-rate-regulated utility's Board of Directors is best suited to act in a policymaking role and evaluate the impacts of alternatives to current net-metering obligations and make informed and appropriate policy decisions about possible pilot projects. To the extent the Board asserts regulatory jurisdiction over rate-regulated utilities as to

net-metering rules, the IAEC can monitor the Board's actions to ensure the timing of policy changes are consistent with the IAEC members' policy initiatives.

7. ***Participants should indicate their preferences for addressing net-metering going forward based on each of the options presented in the staff memorandum. Participants should also explain the basis for their preferred options and address how their preferred approach achieves the draft policy goal.***

#### **IAEC RESPONSE:**

The Staff Memo recommends the Board consider both short-term and long-term options for net-metering and the impacts that result from those options. The Staff identified four policy options available to the Board as follows:

Option 1: make no changes to net-metering policy.

Option 2: make select changes to net-metering policy

Option 3: explore long-term solutions

Option 4: explore pilot projects

The IAEC does not necessarily advocate for any specific policy changes or recommendations. Instead, the IAEC notes various issues that are worthy of consideration if there is going to be adequate balancing of interests between electric consumers who adopt distributed generation and those who do not. Any one of the four options listed in the Staff Memo may not sufficiently fulfill this need for equity and yet certain policy options could bring greater balance than others. Since net-metering encompasses rate issues, the IAEC seeks policy solutions which balance the concerns of distributed generation investing customers and customers who prefer to receive all of their electricity from their local cooperative. The IAEC suggests that any short-term and long-term options should assist utilities in fulfilling their statutory obligation to promote distributed generation and also send appropriate price signals to encourage capital investment in generation at both the utility-scale and distributed levels.

WHEREFORE, the IAEC respectfully requests the Board give these comments and responses due consideration as it proceeds to evaluate and consider the issues related to net-metering. The IAEC applauds the Board for its efforts to gather information on this important energy topic. The IAEC looks forward to continuing to participated in this Docket, whether through additional rounds of written comments, workshops, or other means as deemed most appropriate by the Board and staff.

Dated this 15<sup>th</sup> day of June, 2015.

Sullivan & Ward, P.C.

/s/

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#### CERTIFICATE OF SERVICE

I hereby certify that I have filed this pleading with the Board's Executive Secretary through the Electronic Filing System (EFS) this 15<sup>th</sup> day of June, 2015.

/s/ Dennis L. Puckett