

**STATE OF IOWA**  
**BEFORE THE IOWA UTILITIES BOARD**

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<b>IN RE:</b>	)	
	)	<b>DOCKET NO. NOI-2014-0001</b>
<b>DISTRIBUTED GENERATION</b>	)	<b>DOCKET NO. TF-2016-0321</b>
	)	<b>DOCKET NO. TF-2016-0322</b>
	)	
	)	<b>COMMENTS ON IPL PILOT NET</b>
	)	<b>METERING TARIFF</b>
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The Environmental Law & Policy Center (ELPC), Iowa Environmental Council (IEC), Sierra Club, Iowa Solar Energy Trade Association (ISETA), Natural Resources Defense Council (NRDC), and Vote Solar, collectively the “Joint Commenters,” file these comments in response to Interstate Power and Light’s pilot net metering tariff filed on August 31, 2016. For the reasons discussed in more detail below, the Joint Commenters object to IPL’s proposed tariff because it is inconsistent with the Board’s intent and explicit directive to expand renewable distributed generation (DG) in Iowa. Specifically, IPL’s proposal to limit net metering to an estimate of a customer’s maximum annual kilowatt demand along with other proposed provisions will make IPL’s net metering program less transparent, more complicated, and less likely to encourage renewable generation. The Joint Commenters respectfully request that the Board docket IPL’s tariff for further proceedings to address the issues raised below.

**I. Introduction – The Board Reaffirmed Its Data-Driven Approach Preserving Net Metering and Looking for a Limited Expansion of Distributed Generation.**

On July 19, 2016, the Iowa Utilities Board issued an order directing Interstate Power and Light (IPL) and MidAmerican Energy Company (MidAmerican) to file pilot net metering tariffs.<sup>1</sup> The Board's order and corresponding press release issued the same day made clear the Board's intention to encourage and expand renewable energy development in Iowa. The order preserved the existing net metering framework and ordered several narrow changes designed to expand renewable development while balancing customer and utility interests by limiting net metering to the customer's annual energy use.

The order specifically directed three changes: 1) increase the net metering cap from 500 kW to 1 MW up to 100% of a customer's load; 2) allow all customer classes to net meter to offset energy charges; and 3) provide an annual cash-out of excess credits at the utility's avoided cost rate with the cash-out to be split between the customer and the utilities' programs for customers in need.<sup>2</sup>

The July 19, 2016 order is the culmination of the net metering portion of the Board's notice of inquiry docket on distributed generation initiated on January 7, 2014. Since initiating the docket, there have been multiple rounds of comments submitted by a diverse array of stakeholders covering a wide range of distributed generation topics. More than 170 participants have filed comments in this docket, including utilities, utility associations, environmental groups, renewable energy advocates, and other organizations, businesses, and individuals.

Net metering has been a particular focus of the docket. The Board addressed the path forward on net metering in its October 30, 2015 Order and the July 19, 2016 Order reaffirms the Board's commitment to that approach. The Board's October 2015 Order emphasizes a data-

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<sup>1</sup> NOI-2014-0001, Order Directing Filing of Net Metering Tariffs (July 19, 2016).

<sup>2</sup> *Id.* at 3-4.

driven approach, concluding, in the case of net metering, that “additional information is required before any permanent policy or rule changes are made.”<sup>3</sup>

In order to begin the process of collecting additional information to inform future policy discussions while waiting for the market to grow large enough for a full value of solar study, the Board provided a pilot project framework. The “Board encourage[d] all utilities (municipal, rural electric cooperatives, and investor-owned), but particularly the investor-owned utilities (IPL and MidAmerican), to consider implementing pilot projects that will expand renewable DG in Iowa.”<sup>4</sup>

The Board’s vision of pilot projects “creates an opportunity for innovation and exploration of best practices.”<sup>5</sup> Importantly, a pilot project “provides an opportunity to make changes on a limited basis in order to determine the impacts that those changes might have on the utility and its customers prior to making these changes permanent.”<sup>6</sup> The Board stated its interest in several types of pilot projects, while also noting that the utilities should have flexibility in designing these pilot programs. The Board highlighted several topics that pilot projects could collect useful information about:

- The treatment of excess net-metering credits including information about the amount of such credits and “whether there are sufficient credits to justify a change in the rules”<sup>7</sup>
- Whether the net metering cap should be increased including collecting data on “the financial impacts of raising the cap”<sup>8</sup>
- Reliability

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<sup>3</sup> NOI-2014-0001, Order Regarding Policy Statement, Rate Design Presentations, and Net-Metering Generation Pilots, at 7 (Oct. 30, 2015).

<sup>4</sup> *Id.* at 9 (emphasis added).

<sup>5</sup> *Id.* at 8.

<sup>6</sup> *Id.* (emphasis added).

<sup>7</sup> *Id.*

<sup>8</sup> *Id.* The Board specifically noted that “a pilot project increasing the current 500 kW size to 1 MW could provide valuable information and it is consistent with the policy statement encouraging DG growth.”

- Community solar programs

Although the Board declined to mandate any specific pilot programs, it was specific about the objective of such programs—to “expand renewable DG in Iowa” and to gather additional information about some aspects of net metering.<sup>9</sup>

The Board required Preliminary Implementation Plans “to gauge the investor-owned utilities’ progress.”<sup>10</sup> MidAmerican and IPL filed preliminary implementation plans that included sweeping rate design changes that drew significant stakeholder and Office of Consumer Advocate concern. We submitted comments to the Board highlighting our concerns in a response to the pilot proposals on April 19, 2016. The Board’s July 19 Order was “[t]o address these [stakeholder] concerns and to obtain data concerning net metering penetration.”<sup>11</sup> The Board’s reiteration made clear that it intended to expand distributed generation with limited changes and that it was not looking to make fundamental changes to net metering. The July 19 Order called for the utilities to submit revised pilot programs consistent with the Board’s overarching policy objectives.

IPL has used its response to the July 19, 2016 Board Order to propose a new way to dramatically alter net metering in a manner that makes it less transparent, more complicated, and less likely to encourage renewable generation. IPL proposes to limit net metering to a customer’s maximum annual kilowatt demand – or in most cases an estimate of this maximum demand based on customer class data. IPL’s approach is inconsistent with the Board’s intent and with the Board’s specific direction. We have significant concerns with IPL’s approach. In addition, IPL includes several unnecessary special provisions in its tariff that will only serve to further

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<sup>9</sup> *Id.* at 9.

<sup>10</sup> *Id.* at 10.

<sup>11</sup> July 19, 2016 Order at 2.

unnecessarily increase costs for distributed generation. We offer comments on these issues and a couple of additional areas to address concerns we have with the timing of the cash-out provision and with how the three-year pilot period is implemented with the existing net metering tariff. We object to IPL's tariff and request the Board docket the tariff for further proceedings to address the issues raised.

**II. IPL's Pilot "Net Billing" Tariff Would Fundamentally Change the Structure of Net Metering and is Inconsistent with the Board's Order.**

IPL proposes to constrain and fundamentally alter its net metering program by limiting the "monthly amount of kilowatt-hour eligible" for net metering to an estimate of that customer's maximum annual kilowatt demand<sup>12</sup> rather than focusing on the customer's annual kWh *energy* use. IPL's proposal is inconsistent with the Board's Order and has no precedent that the Joint Commenters are aware of anywhere in the country. We have three major concerns with IPL's proposed approach at this time. First, the approach is likely to result in less renewable energy, which contradicts the intent of the Board's July order. Second, the approach is not actually based on a customer's own actual demand or energy use, but on the calculations using information from a customer class. Third, the IPL approach is not transparent and is overly complicated.

Regarding the first concern, IPL's approach will result in the installation of solar systems that are significantly smaller in size than what would be installed to meet a customer's annual energy needs, which is contrary to the intent of the Board order to expand renewable energy. IPL's interpretation letter signals the problem with its approach and the likelihood that its approach will not encourage or expand renewable energy. In that letter, IPL provides an example to calculate the size of an array that would equal 100 percent of customer load, including a calculation that a 5.48 kW solar system would be used to limit net billing for a residential

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<sup>12</sup> TF-2016-0321, IPL Cover Letter at 2 (August 31, 2016).

customer using 12,000 kWh per year.<sup>13</sup> While solar system performance varies given a number of site, equipment, and installation factors, a residential solar system installed at 5.5 kW would not be expected to generate 12,000 kWh per year and will not meet that residential customer's annual energy requirements.<sup>14</sup> A solar system of approximately 9 kW would be needed to meet that customer's annual energy requirements. Thus, IPL's demand-based interpretation of the term "load" will dramatically limit the size of systems that can be installed and the benefit that net metering customers can receive.

Second, IPL's proposed approach would be a significant departure from its existing tariff in that it is not based on customer-specific load data. IPL does not have annual maximum demand data for residential and commercial customers. Instead of making a customer specific calculation, IPL proposes to use a customer class load factor. Even if IPL's approach to load were consistent with the Board order, the use of the class load factor is not. Customers would have their ability to net meter artificially capped based not on their own usage, but the usage of other customers in their class. Using customer class load shapes in lieu of customer specific information is a poor proxy for an individual customer's demand.

Finally, IPL's approach is non-transparent, unnecessarily complicated, and unduly limiting. While the current approach to net metering is relatively simple and easy for a customer to understand, IPL's new approach is complicated and cannot even be explained effectively in a concise example. IPL provides an example of how to calculate the load cap, but there is still additional calculation to be made to determine how that load cap would work on a monthly basis.

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<sup>13</sup> *Id.*

<sup>14</sup> We used default input assumptions in NREL PV Watts to compare a 5.5 kW (DC) solar array with a 9 kW solar array installed in Des Moines. The 5.5 kW solar array would generate approximately 7,556 kWh per year while a 9 kW array would generate approximately 12,365 kWh per year. <http://pvwatts.nrel.gov/pvwatts.php>.

In contrast, the current system for net metering simply requires a customer's meter to go forward when the customer takes energy from IPL and to go backward when the customer sends energy to the grid. This is the standard and widely understood definition of net metering.<sup>15</sup> The annual cash out ensures that the customer's net metering is limited to annual energy usage – any excess at the end of the year is given avoided cost value and not retail rate. Thus, customers have no financial incentive to “oversize” their systems.

IPL claims that the load cap will not restrict the size of the installation, but it will limit the monthly amount of kilowatt-hours eligible for net metering. In other words, unlike the current net metering tariff, IPL will not allow a 10 kW system to net meter all of its energy in many circumstances. This change is a significant limitation to net metering – one that will not be readily apparent to many customers and one that is fundamentally inconsistent with the Board's intent to expand renewable generation.

We know of no other net metering program in the country that limits a customer's net metering to the maximum annual demand of that customer or an estimate of that customer's annual demand. IPL is proposing a major fundamental negative change to net metering when the Board requested narrow changes. The Board should reject IPL's approach and require the Company to interpret the limitation of 100 percent of customer load as 100 percent of the customer's annual energy usage, consistent with the Board's intent, long-standing practice in Iowa including MidAmerican's pilot net metering tariff, and the general understanding of net metering in programs across the country.

**III. IPL's Special Provisions Should Not Be Used as a Way to Unnecessarily Increase Distributed Generation Cost.**

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<sup>15</sup> See Freeing the Grid (2016), <http://freeingthegrid.org/education-center/net-metering/>.

IPL includes several special provisions in its net metering pilot tariff that we recommend be clarified, modified or eliminated. IPL special provision 1 requires that a “Customer may be served from a distribution transformer which serves no other customer.” It is unclear what the purpose of this provision is. If the purpose is to clarify that it is acceptable for a customer to interconnect and net meter in cases where a distribution transformer serves no other customer that seems appropriate. If, on the other hand, this language is meant to create an additional requirement that a customer can only net meter if that customer is the only customer served from a distribution transformer, then this provision creates an unnecessary barrier. IPL has a separate special provision (5) that requires a customer meet the interconnection requirements. The interconnection requirements thoroughly address reliability and safety concerns related to interconnection, and there is no justification for a separate interconnection requirement in special provision 1. IPL should clarify the purpose of Special provision 1 and if the purpose is already addressed in Iowa’s interconnection standards, IPL should eliminate special provision 1 from the tariff.

Special provision 4 provides that “All electricity delivered shall be for the exclusive use of the Customer and shall not be resold.” This is a new ambiguous provision, and IPL should clarify the intent and interpretation of the provision. We are not opposed to requirements that a net-metered system is intended to serve the on-site load. We are concerned with language that could be interpreted to restrict the use of third party financing. If IPL intends to use this new special provision to restrict third-party financing then we are opposed to this provision, and it would be inconsistent with the Iowa Supreme Court’s ruling in *Eagle Point Solar* and the existing net metering rule.

Special provision 7 requires a customer “to provide VARs as needed to serve their load. Customer will provide equipment to maintain unity power factor plus or minus 10 when Customer is taking service from IPL.” Again, the interconnection requirements thoroughly address reliability and safety concerns related to interconnection. This provision amounts to a requirement to install smart inverters. Smart inverters were not one of the topics addressed in NOI-2014-0001. We think that there is value to smart inverters and that they can provide a service to utilities and the grid. However, it is not clear that requiring smart inverters is necessary nor is it clear that the customers should bear the additional cost when the smart inverters would be providing a benefit to the utilities. It would be appropriate to have additional study of smart inverters before imposing a requirement on customers. We recommend eliminating this requirement until further study has been conducted.

**IV. The Avoided Costs Used in the Pilot Tariff Should be Board Approved Tariffed Avoided Cost Rates, Not Informational Filings.**

IPL uses numbers from its recent PURPA informational filing for its avoided costs rather than rates in IPL’s Board-approved tariff. The Board’s July 19 order was clear that the cash-out would be provided at the “utility’s tariffed avoided cost rate.”<sup>16</sup> The tariff approval process provides important protections and should be a prerequisite for use of avoided cost rates in the net metering pilot tariff.

**V. Allowing the Customer to Select the Cash-Out Date or Moving the Annual Cash-Out Date to the Spring Would Better Reflect the Board’s Intent to Expand Renewable Generation in a Balanced Manner.**

The Board’s July 19 Order provides that the utility’s net metering pilot tariffs should provide for annual cash-out, which “shall take place during the first billing cycle of the calendar year.” In order to better reflect the Board’s intent to expand renewable generation, the Board

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<sup>16</sup> July 19, 2016 Order at 3.

should consider revisiting the timing of the cash-out. While it may be administratively simple to designate the first billing cycle of the year for the cash-out, it would lead to many systems being undersized based on the customer's annual energy use in order to avoid having credits at the end of December. This would decrease renewable energy and be inconsistent with the intent of the Board's order.

Credits from excess energy in the summer months, when there are significantly more hours of daylight, can be used to offset winter months that have lower solar production. The excess credits in the summer months are needed to balance the energy use over the course of the year. If the cash-out is at the end of the calendar year, there will not be any credits available from previous months to get a customer through January, February, and March – months that have less hours of sunlight and are typically months where the customer gets more energy from the utility than is produced by the solar array. The response from solar developers would be to intentionally undersize systems from an annual energy use perspective to avoid having energy credits that would be cashed out at the end of December. The result would be smaller systems than are currently being developed, and systems that produce less than the customers annual energy use.

We recommend allowing customers to choose when the annual cash-out occurs. This approach would best account for variability in customer energy needs and allow the customer the most flexibility in designing a system that meets 100 percent of the customer's annual energy use. Alternatively, if the Board or utilities want a uniform cash-out date, we would recommend moving the cash-out date to April or May to allow systems to be sized closer to the customers actual energy use over the course of the year.

**VI. The Pilot Should Not Be Structured to Indefinitely Freeze Net Metering.**

IPL's tariff filings would effectively eliminate net metering starting January 1, 2020 when the Company's three-year pilot expansion expires. IPL's existing tariff should be revised to allow net metering to revert to the current program absent further Board action at the end of the pilot period. This can be accomplished by revising the language that IPL added to its existing tariff on Revised Sheet No. 52. Instead of including language to indefinitely freeze the tariff, the language should limit the freezing of the existing tariff to the pilot period. The revised sentence should read as follows: "This tariff is frozen to existing Customers at existing locations until January 1, 2020." The net metering tariffs can be revised based on the results of the pilot net metering tariff, but the Board's intent has been clear not to change net metering without deliberate study and analysis. The tariff revisions should not eliminate net metering starting January 1, 2020.

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Respectfully submitted,

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