

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

IN RE:)
)
DISTRIBUTED GENERATION) **DOCKET NO. NOI-2014-0001**
)
) **RESPONSE TO BOARD ORDER**
) **SOLICITING PROPOSED RULE**
) **CHANGES**
)

The Environmental Law & Policy Center (ELPC), Iowa Environmental Council (IEC), and Interstate Renewable Energy Council, Inc. (IREC), collectively file these comments pursuant to the Iowa Utilities Board Order Soliciting Additional Comments on October 9, 2015.

Introduction

As part of NOI-2014-0001, the Iowa Utilities Board has been reviewing how to best update Iowa’s interconnection standards. This builds on Iowa’s history of adopting and implementing best practice interconnection rules based upon the FERC Small Generator Interconnection Procedure (SGIP). As has been noted in previous filings in this docket, the original FERC SGIP rules are now outdated and inefficient for utilities, customers and developers as they work to integrate more distributed generation into our energy mix.

In November 2013, FERC substantially revised its SGIP and incorporated many new best practices. The details of the updated SGIP were developed in a comprehensive process involving many of the largest utilities, national labs, government agencies and technical experts. The

revised SGIP includes many innovations to streamline distributed generation interconnection, including the creation of a pre-application report and changes to the supplemental review process to allow a greater number of systems to proceed without full study while also maintaining system safety, reliability, and power quality. In the early part of NOI-2014-0001, several commenters recommended updating Iowa's interconnection rules to be in line FERC SGIP and interconnection best practices.

The Board responded to commenters' recommendation by requesting proposals for interconnection rule changes based on the FERC SGIP and the recommendations of stakeholders. The Board received proposed rule changes and a first round of comments on February 16, 2015 and response comments on April 7, 2015. The response comments included joint comments from ELPC, IEC, MidAmerican Energy Company (MidAmerican), and Interstate Power and Light Company (IPL) covering several areas of agreement including on pre-application reports and supplemental review. The Board then issued an Order on September 1, 2015 with a draft of potential rule changes and scheduled a workshop on October 6, 2015.

While the Board's proposed rules made many important updates to the interconnection rules, the workshop highlighted areas where stakeholders thought that additional changes to the rules were still needed. The workshop discussion focused on the pre-application report, supplemental review, including energy storage in the definition of distributed generation, the removal of the No Construction Screen, maintaining queue order for projects that fail a level of review, interconnection fees, and disconnect device issues. The Board solicited specific written feedback on these areas and will also provide interested stakeholders an opportunity to respond to the comments submitted. The goal of this process is to identify potential areas of consensus in advance of the Board initiating a formal rulemaking process.

ELPC, IEC, MidAmerican and IPL have filed a second round of joint comments that address proposed language for a pre-application report and a supplemental review process. The consensus among this key group of stakeholders reflects the consensus that has been reached through the FERC SGIP update process and in multiple other states. These best practices would make Iowa's interconnection rules work more efficiently and effectively and should be adopted by the Board. In addition to the joint comments, ELPC, IEC and IREC have the following comments in response to the Board's October 9, 2015 Order.

Storage in the Definition of Distributed Generation

As we proposed earlier, Iowa's interconnection rules should clarify that energy storage facilities are included in the definition of a distributed generation facility. Adding storage facilities to the definition to Iowa's rules would ensure that such facilities are eligible to apply for interconnection and that the procedures that would apply to their review are clear. This is important because energy storage facilities will be developed in Iowa in the coming years, and it is helpful to clarify the procedures up front in order to avoid disputes and ensure that there is an efficient path to interconnection for customers and utilities. Recognizing that a storage facility is a distributed generation facility will minimize uncertainty and assure there is a clear process for handling such applications. Without this simple change, there is a good chance that the Board will very soon face questions about the process for these facilities and have to deal with those questions in unnecessary and potentially repetitive waiver filings or initiate another rulemaking proceeding in the future to address issues that can be anticipated today.

For example, we believe that it is likely that qualifying facilities that include energy storage will apply for interconnection soon in Iowa. Indeed, FERC recently included storage

facilities in its definition of small generating facility in the SGIP update “to ensure that storage devices are interconnected in a just and reasonable and not unduly discriminatory manner.” FERC Order 792, ¶ 227. This is important because, as the Department of Energy recognized in its recent report on energy storage, modernizing the grid will require “substantial deployment of energy storage.”¹ A recent report by GTM Research predicted that the market for energy storage would grow 250% in 2015 and concluded that while many of the projects today are in front of the meter, it “expects behind-the-meter storage to account for 45 percent of the overall market by 2019.”² In light of this growth potential, there is no benefit in leaving the rules ambiguous, particularly because the change required at this time is modest. Accordingly, Iowa should revise its definition of a distributed generation facility to accommodate storage facilities’ connection to the grid.³

We will continue to work with other parties on this issue and think that there are multiple options that might be acceptable. We include language, as part of Attachment A, that is consistent with the FERC SGIP in the definition of distributed generation facility and will evaluate any suggestions that other stakeholders put forward in these comments.

No Construction Screen

¹ U.S. Dept. of Energy, Grid Energy Storage, at 7 (Dec. 2013), *available at* <http://energy.gov/sites/prod/files/2014/09/f18/Grid%20Energy%20Storage%20December%202013.pdf>.

² Mike Munsell, “US Energy Storage Market to Grow 250% in 2015,” Greentech Media, March 05, 2015, *available at*: <http://www.greentechmedia.com/articles/read/us-energy-storage-market-grew-400-in-2014>.

³ Some of the utilities have suggested they may propose a separate definition for energy storage facilities and recommend revising the rules to apply to “distributed generation or energy storage” facilities. This approach would also be acceptable, as long as it is made clear that energy storage facilities are eligible for interconnection and that the process is for reviewing those facilities is the same as it would be for traditional generators.

The technical screens in the interconnection rules are designed to protect safety and reliability. The Board's August 5, 2015 Gold Memo treats the No Construction Screen as a technical screen dealing with safety and reliability when, in practice, the screen is more related to determining the cost and timeline for the construction of infrastructure necessary to interconnect the system. The changes that ELPC, IEC and IREC proposed related to the No Construction Screen are designed to maintain the technical screens on safety and reliability, while allowing projects that do not pose system issues to proceed even if they require some construction. Once a project passes the other technical review screens it has already been determined that it can interconnect safely and reliably without the need for a system impacts study. The No Construction Screen is not necessary for this determination.

For example, a university could be exploring adding a solar array to campus. The university could be looking at two options to locate the array: 1) an existing building on campus; and 2) an adjacent vacant lot that the university owns but does not currently have a service entrance or other interconnection facilities. In both locations, the solar array could be installed safely and reliably and an additional system impacts study would not be necessary. However, under existing rules the location on the vacant lot would require a higher level of study, not for safety and reliability purposes, but simply because of the need to construct interconnection facilities or other minor upgrades to be able to physically interconnect at the site. Modifying the rules to address these types of situations will allow construction of distributed generation facilities that do not have reliability or safety concerns and avoid costly and time consuming studies that are not necessary.

The language proposed in ELPC, IEC, and IREC's February 6, 2015 comments does not limit the technical screens on safety and reliability; instead, the changes propose an alternate

process for determining the costs and timeline for construction of necessary upgrades. We have included that language here as part of Attachment A. The changes provide a tiered review process that allows for either a quick cost estimate, or a full facilities study, depending on the amount of construction required. This process increases the efficiency of the review process, ensures ample consideration, and approval of construction costs, while still maintaining system safety and reliability. Replacement of the No Construction Screen is becoming a common practice in the United States and has recently been adopted in North Carolina, has been proposed by the utilities South Carolina and is under consideration in Illinois.

Queue Order

We support the Board's proposal to include a provision within the Level 1 review process that allows an applicant who fails the review screens to keep the review order position so long as the applicant makes a new interconnection request under the study process within fifteen (15) days. 199 Iowa Admin. Code § 45.8(2)(f). This proposed provision is consistent with our previous recommendation and with the existing provisions within Levels 2 and 3. 199 Iowa Admin. Code §§ 45.9(7), 45.10(1)(e)(2), 45.10(5). All of these provisions promote fairness to customers by allowing them to address any utility concerns without losing their place in the review order, in addition to improving administration for utilities.

Disconnect Device Issues

The Board requested further comment on several issues related to disconnect devices, including clarification of "adjacent to the meter" and "permanent placard" and a remedy for failure to place a placard or a disconnect device.

Regarding “adjacent to the meter” for placement of the disconnect device, we support a general standard that can be applied to typical installations – which would account for most installations – with some flexibility for unique and difficult or expensive situations. The standard should be up to ten (10) feet from the meter in a typical home or small business and a longer distance for typical large business or farm, such as up to thirty feet. The rules should provide some variation from these distances in the limited circumstances described above and then require a permanent placard on the meter that indicates the location of the disconnect device if it is outside of these distances. Regarding what constitutes a “permanent placard,” we support use of standard placards that are readily available from signage businesses and will not require distributed generation customers or installers to find, and pay for, special or unique placards. Use of weather resistant and reflective material, such as engraved plastic, should make the placard permanent.

Finally, regarding remedies in the event that the utility becomes aware that the customer has not installed a permanent placard or a disconnect device, we support the utility providing written notice to the customer and the installer and providing a reasonable time, thirty (30) days for a permanent placard and sixty (60) days for a disconnect device, to correct the deficiency. A second written notice should be provided if the customer fails to comply. The rules should not allow for disconnection of the customer’s utility service or the imposition of financial penalties for non-compliance. However, disconnection of the customer’s distributed generation facility could be considered if several rounds of written notice do not result in compliance.

Confidentiality

During the workshop, some participants raised the possible concerns about customer-specific information being revealed with the disclosure of load information. The concern as expressed in the workshop is that in areas where there are only a few large customers, load information could be revealing. At the workshop, participants could not identify any instance of this actually happening in Iowa. If an Iowa utility encounters such a situation, it would be possible to deal with the situation on a case by case basis through a waiver or other similar mechanism if needed.

Interconnection Fees

As we have previously commented, we believe that interconnection fees should allow the utility to recover its reasonable costs, assuming the utility is acting efficiently to keep costs down. Fees should relate to the complexity of the interconnection request, and generators proceeding through Level 1 review generally can be processed efficiently. Accordingly, IREC's Model Rules recommend a Level 1 interconnection fee of \$100.00, though some states have made the policy decision to have no interconnection fee for net-metered facilities, which encourages their interconnection.

Currently, Iowa's interconnection fees are \$50.00 for Level 1 installations (under 10 kVA) and \$100.00 plus \$1.00 per kVA for Level 2 installations (under 2 MVA). In previous filings, IPL has suggested that the fees for both Levels 1 and 2 be increased to \$250.00. IPL bases its recommendation on its estimates that processing a Level 1 application, including costs for administrative and distribution engineering costs, costs IPL between \$158.80 and \$283.00 to review, and processing a Level 2 application costs it between \$255.80 and \$385.00.

To aid the Board in considering the appropriate fees, to set we want to share information about the fees in place in other jurisdictions.

In California, the utilities were recently tasked with tracking the costs associated with the interconnection process for net energy metering (“NEM”) facilities (which are capped at 1 MW in California). This information is useful in demonstrating what the actual processing costs are in a state where the utilities have implemented relatively efficient review processes. The California utilities reported their actual costs for NEM interconnection for November 1, 2013 through August 31, 2014, and later updated their reports to reflect costs for November 1, 2013 through May 31, 2015. The utilities’ reported average administrative and distribution engineering costs per application for NEM interconnections ranged from \$44.27 to \$199.58.⁴

Also, as time went on, the average costs per application dropped, reflecting the increased efficiency we believe will occur as utilities gain expertise in processing the applications. For example, Pacific Gas & Electric’s average cost per application dropped from \$157.54 for November 1, 2013 through August 31, 2014,⁵ to \$137.87 for November 1, 2013 through May 31,

⁴ See Cal. PUC, Advice 4660-E, Pacific Gas & Electric, Information-Only Filing Regarding Net Energy Metering Costs (June 30, 2015), *available at* http://www.pge.com/notes/rates/tariffs/tm2/pdf/ELEC_4660-E.pdf; Cal. PUC, Advice 2761-E, San Diego Gas & Electric, Information Only – Net Energy Metering Interconnection Costs Pursuant to Resolution E-4610 & Decision 14-05-033 (June 30, 2015), *available at* <http://regarchive.sdge.com/tm2/pdf/2761-E.pdf>; Cal. PUC, Advice 3239-E, Southern California Edison, Information-Only Advice Letter Southern California Edison Company’s Report on Net Energy Metering Interconnection Costs (June 30, 2015), *available at* <https://www.sce.com/NR/sc3/tm2/pdf/3239-E.pdf>; Cal. PUC, Advice 3239-E-A, Southern California Edison, Supplement to Information-Only Advice Letter 3239-E, Southern California Edison Company’s Report on Net Energy Metering Interconnection Costs (October 30, 2015), *available at* <https://www.sce.com/NR/sc3/tm2/pdf/3239-E-A.pdf>.

⁵ See Cal. PUC, Advice 4498-E, Pacific Gas & Electric, Information-Only Filing Regarding Net Energy Metering Costs (Sept. 19, 2014), *available at* http://www.pge.com/notes/rates/tariffs/tm2/pdf/ELEC_4498-E.pdf.

2015.⁶ San Diego Gas & Electric's average cost per application dropped from \$242.05⁷ to \$199.58⁸ during the same time period.

Most other states have fees that are below the levels proposed by IPL. For example, Oregon and Washington cap interconnection application fees for facilities of 25 kW or less at \$100.00.⁹ Minnesota's fees for facilities fewer than 20 kW range from \$0.00 to \$100.00, depending on the interconnection type.¹⁰ New York allows no fee for facilities fewer than 50 kW.¹¹ Ohio allows a fee of \$50.00 for a Level 1 project (fewer than 25 kW) and a fee of up to \$50.00, plus \$1.00 per kilowatt of the applicant's system nameplate capacity rating for Level 2 projects.¹²

As the data from the California utilities reflects, it is likely that the utilities in Iowa will become more efficient at processing interconnection applications over time. We believe that it is important that the interconnection fees continue to provide the utilities with an incentive to improve the quality and efficiency of their interconnection process. Based on experience in other

⁶ See Cal. PUC, Advice 4660-E, Pacific Gas & Electric, Information-Only Filing Regarding Net Energy Metering Costs (June 30, 2015).

⁷ See Cal. PUC, Advice 2650-E, San Diego Gas & Electric, Information Only – Net Energy Metering Interconnection Costs Pursuant to Resolution E-4610 & Decision 14-05-033 (Sept. 19, 2014), available at <http://regarchive.sdge.com/tm2/pdf/2650-E.pdf>.

⁸ See Cal. PUC, Advice 2761-E, San Diego Gas & Electric, Information Only – Net Energy Metering Interconnection Costs Pursuant to Resolution E-4610 & Decision 14-05-033 (June 30, 2015).

⁹ Or. Admin. R. 860-082-0025(3)(a); Wash. Admin Code § 480-108-030(5)(a).

¹⁰ Minn. PUC, In re Establishing Generic Standards for Utility Tariffs for Interconnection, Order Establishing Standards, Docket No. E-999/CI-01-1023, Attachment 1 (Sept. 28, 2004).

¹¹ N.Y. Pub. Service Comm'n, New York State Standardized Interconnection Requirements and Application Process for New Distributed Generators 2 MW or Less Connected in Parallel with Utility Distribution Systems, at 3 (July, 2015), available at [http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/DCF68efca391ad6085257687006f396b/\\$FILE/61576243.pdf/Final%20SIR%207-21-15.pdf](http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/DCF68efca391ad6085257687006f396b/$FILE/61576243.pdf/Final%20SIR%207-21-15.pdf).

¹² Pub. Utilities Cmm'n of Ohio, 12-2051-EL-ORD, Finding and Order, Dec. 4, 2013, available at: <http://dis.puc.state.oh.us/DocumentRecord.aspx?DocID=e289546a-55ce-4df0-a743-8eb6942178b1>.

states, the changes proposed in this proceeding if implemented properly and as designed will result in increased efficiency when compared to the existing process. We recommend the starting point for any increase in fees track national best practices; therefore, we recommend limiting the fee for Level 1 systems to \$100.00 to reflect national best practices on fees. This is double the current Level 1 interconnection fee in Iowa. We are willing to evaluate the information that is contemporaneously filed by the utilities to make their case for further increases, but we think that any such increase should be balanced with Iowa's existing policy to encourage alternative energy sources and the fact that utilities with more experience with distributed generation have further reduced costs.

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Respectfully submitted,

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PROPOSED CHAPTER 45 CHANGES
SUBMITTED NOVEMBER 6, 2015 BY
ENVIRONMENTAL LAW & POLICY CENTER, IOWA ENVIRONMENTAL COUNCIL,
AND INTERSTATE RENEWABLE ENERGY COUNCIL

Energy Storage

Add to the Definition Section 199—45.1(476) Definitions

“Distributed generation facility” means a qualifying facility, ~~or~~ an AEP facility, and/or the equipment used by an interconnection customer to store electricity for later injection into the electric distribution system.

No Construction Screen

Add to the Definition Section 199—45.1(476) Definitions

“Minor system modifications” means modifications to a utility’s electric distribution system located between the service tap on the distribution circuit and the meter serving the interconnection customer, or other minor system changes that the utility estimates will entail less than four hours of work and \$1000 in materials. Such modifications may include, for example, changing the fuse in a fuse holder cut-out or changing the settings in a circuit recloser.

Add to the following language to the sections below as the replacement process for the deleted no construction language identified below

45.8(2)e. Otherwise, if the proposed interconnection meets all of the applicable Level 1 screens, the request shall be approved and the utility will provide the applicant an executed version of the “Conditional Agreement to Interconnect Distributed Generation Facility” in Appendix A within the following timeframes:

1) If the proposed interconnection requires no construction of facilities by the utility on its own system, the utility shall send the applicant an executed “Conditional Agreement to Interconnect Distributed Generation Facility” (Appendix A) within 5 business days after notification of the Level 1 review results.

2) If the proposed interconnection requires only minor system modifications, an executed “Conditional Agreement to Interconnect Distributed Generation Facility” (Appendix A), along with a non-binding good faith cost estimate and construction schedule for such upgrades, shall be provided within 15 business days after notification of the Level 1 review results.

3) If the proposed interconnection requires more than minor system modifications, the utility shall either: (a) provide an executed “Conditional Agreement to Interconnect Distributed Generation Facility” (Appendix A), along with a non-binding good faith cost estimate and construction schedule for such upgrades, within 20 business days after notification of the Level 1 review results; or (b) notify the customer when it provides the Level 1 results, that it must first fund an interconnection facilities study under section 45.11 to determine the necessary upgrades. If the customer elects to fund an interconnection facilities study, the utility shall proceed with the interconnection facilities study according to the timeframes and process in section 45.11(7).

45.9(3) When a utility determines that the interconnection request passes the Level 2 screening criteria, or the utility determines that the distributed generation facility can be interconnected safely and will not cause adverse system impacts, even if it fails one or more of the Level 2 screening criteria, it shall provide the

applicant with the Standard Distributed Generation Interconnection Agreement in Appendix D (199—45.17(476)) within ~~three business days of the date the utility makes its determination~~ the following timeframes.

a. If the proposed interconnection requires no construction of facilities by the utility on its own system, the interconnection agreement shall be provided within 5 business days after the notification of Level 2 review results.

b. If the proposed interconnection requires only minor system modifications, the interconnection agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, shall be provided within 15 business days after notification of the Level 2 review results.

c. If the proposed interconnection requires more than minor system modifications, the utility shall either: (a) provide an executed “Conditional Agreement to Interconnect Distributed Generation Facility” (Appendix A), along with a non-binding good faith cost estimate and construction schedule for such upgrades, within 20 business days after notification of the Level 1 review results; or (b) notify the customer when it provides the Level 2 results that it must first fund an interconnection facilities study under section 45.11 to determine the necessary upgrades. If the customer elects to fund an interconnection facilities study, the utility shall proceed with the interconnection facilities study according to the timeframes and process in section 45.11(7).

45.10(2) For a distributed generation facility that satisfies the criteria in paragraph 45.10(1) “e” or 45.10(1) “f,” the utility shall approve the interconnection request and provide the Standard Distributed Generation Interconnection Agreement in Appendix D (199—45.17(476)) for the applicant to sign within ~~three business days of the date the utility makes its determination~~ the following timeframes.

a. If the proposed interconnection requires no construction of facilities by the utility on its own system, the interconnection agreement shall be provided within 5 business days after the notification of Level 2 review results.

b. If the proposed interconnection requires only minor system modifications, the interconnection agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, shall be provided within 15 business days after notification of the Level 2 review results.

c. If the proposed interconnection requires more than minor system modifications, the utility shall either: (a) provide an executed “Conditional Agreement to Interconnect Distributed Generation Facility” (Appendix A), along with a non-binding good faith cost estimate and construction schedule for such upgrades, within 20 business days after notification of the Level 1 review results; or (b) notify the customer when it provides the Level 2 results that it must first fund an interconnection facilities study under section 45.11 to determine the necessary upgrades. If the customer elects to fund an interconnection facilities study, the utility shall proceed with the interconnection facilities study according to the timeframes and process in section 45.11(7).

Delete the following subsections:

45.7(1)(e)

~~e.—No construction of facilities by the utility shall be required to accommodate the distributed generation facility.~~

45.7(2)(d)

~~d.—No construction of facilities by the utility shall be required to accommodate the distributed generation facility, other than minor modifications provided for in subrule 45.9(6).~~

45.7(3)(a)(6) and (b)(5)

~~(a)(6) — No construction of facilities by the utility shall be required to accommodate the distributed generation facility.~~

~~(b)(5) — No construction of facilities by the utility on its own system shall be required to accommodate the distributed generation facility.~~

45.9(1)(j)

~~j. — Except as permitted by additional review in subrule 45.9(6), the utility shall not be required to construct any facilities on its own system to accommodate the distributed generation facility's interconnection.~~