



Iowa's Updated Interconnection Rules: the Highlights

The Iowa Utilities Board recently updated Iowa's interconnection procedures to move toward a more efficient and effective interconnection process for all parties. The Interstate Renewable Energy Council, Inc., Environmental Law & Policy Center, and Iowa Environmental Council partnered throughout this two-year proceeding to advance key reforms, and the improvements reflect many national best practices. Below is a summary of important changes for solar and other distributed generation developers in Iowa.

Pre-Application Reports

Iowa's new interconnection procedures allow one to request a "pre-application report" from the utility for information about interconnection conditions at a particular point on the utility's distribution system. This step is not required, but it benefits applicants by providing access to more granular information about a potential project location before committing to or investing time and resources in a project.

Iowa's pre-application report costs \$300 and provides a significant amount of useful information, provided the utility has it readily available, including the voltage of the line and the amount of existing, queued, and potentially available generation capacity at the proposed point of interconnection. The report may also include minimum and peak load data for relevant line sections and note existing known constraints at the point of interconnection, and more. While Iowa utilities likely will not have all this information readily available today, some data may become more available over time (namely, minimum load data).

Once the potential applicant requests a pre-application report and pays the fee, the utility has 20 days to provide the applicant with the extensive information. While the report is not binding on the utility, the wealth of information can help guide decisions about the viability of a project at a certain site before significant resources are committed to development of the project.

Improved Eligibility Limits for Levels 1 and 2

Iowa's new rules have improved eligibility limits for Level 1 ("small inverter") and Level 2 ("Fast Track") review. First, the eligibility threshold for Level 1 review has been raised from 10 kVA to 20 kVA, expanding the number of generating facilities that can enjoy a more streamlined review. More small projects, which are unlikely to trigger adverse system impacts, can now submit the shorter and streamlined Level 1 application and interconnection agreement and pay lower fees for screening.

Second, Iowa has adopted the table from Federal Energy Regulatory Commission's (FERC) Small Generator Interconnection Procedures (SGIP) for determining eligibility for "Fast Track" Level 2 review. Previously, Level 2 review was available only to projects with a nameplate capacity of under 2 MVA. Now, the 2 MVA threshold applies only to non-inverter-based systems. Inverter-based systems' eligibility for Level 2 review is based on the voltage of the line and the location of the facility on the line, allowing systems of up to 5 MVA to undergo Level 2 review where conditions make it possible that the project will pass the screens. The higher the line voltage and the closer the interconnection point is to a substation (or if it is on a mainline), the bigger the project can be and still take advantage of Level

2 review. The eligibility limits will be lower in some cases than they would have been before, but in those locations a project was extremely unlikely to pass the Level 2 screens so this change provides a better indication of what to expect in the process. In other cases the eligibility limit will be higher, thus this update to Iowa’s rules will allow more projects that would not adversely affect the grid to go through a streamlined technical review process—saving everyone time and money.

Supplemental Review

Iowa’s new interconnection procedures establish new interim step that allows for projects that fail one or more of the Level 2 “Fast Track” screens to undergo some additional study, while avoiding more expensive and time-consuming technical studies. Known as “supplemental review,” this new provision requires a utility to offer to perform additional review to determine whether there will be any potential impacts from the proposed project using additional screens. The supplemental review also determines whether there are minor modifications to the proposed facility or to the distribution system that could allow interconnection without adverse system impacts—importantly, the utility can make this determination without having the project applicant undergo the more costly technical study process.

Iowa’s supplemental review screens look at whether the project would (1) increase the aggregated generating capacity on a line above 100 percent of minimum load; (2) adversely impact voltage and power quality; or (3) adversely impact safety and reliability. The use of the 100% of minimum load screen is a notable improvement for solar and particularly important since the Level 2 penetration screen is highly restrictive and highly likely to limit expedited review as more projects connect to the grid.

If the applicant decides to go forward with the supplemental review, it must pay for the cost of the utility’s work on it, but this cost should be significantly less than the expense of a full study. Further, the process increases transparency, while providing additional time for the parties to resolve safety and reliability concerns more cost-effectively and efficiently. Supplemental review has been adopted in California, Massachusetts, Illinois, and Ohio, and this feature will become increasingly valuable as distributed generation penetration increases and more projects fail the Level 2 screens.

“Energy Storage” Included in Definition of Distributed Generation Facility

Energy storage facilities were added to the definition of “distributed generation facility,” which gives energy storage a critical framework to connect to the grid. This seemingly small change has a big positive effect for distributed generation in Iowa. Energy storage is now subject to the same rules and procedures as other distributed generation facilities. As energy storage prices continue drop, it will become increasingly attractive for customers to consider installing these systems, either with or without on-site generation systems. Iowa’s rules are anticipating energy storage increasing its share of the energy market and provide a clear process for interconnection for these important resources.

Additional Changes

While not summarized in this document, additional updates to the rules worth noting include: site control clarifications; disconnection and reconnection for DG facilities; notification requirements to the local fire department; fees; witness tests; review order position; and disconnection devices.

Standard Forms and Rules Available on the IUB Website

The Iowa Utilities Board website now has the standard forms and a link to the full Chapter 45 interconnection rules, where more detail on each of the above topics can be found:

<https://iub.iowa.gov/on-site-generation>