

Generator, Utility Challenges After FERC Connection Revamp

By **Eric Runge and Margaret Czepiel** (August 16, 2023)

On July 28, the Federal Energy Regulatory Commission issued Order No. 2023, its final rule on improvements to generator interconnection procedures and agreements.[1]

The final rule requires major changes to the generator interconnection process, and directs all public utility transmission providers to adopt reforms to the pro forma large generator interconnection procedures and agreement, and the pro forma small generator interconnection procedures and agreement.

The commission requires these reforms to ensure that interconnection customers are able to "interconnect to the transmission system in a reliable, efficient, transparent, and timely manner." [2] The final rule was adopted unanimously by all commissioners, with concurring statements from Commissioners James Danly, Allison Clements and Mark Christie.[3]

Compliance filings in response to Order No. 2023 are due 90 days from the date of its publication in the Federal Register, which as of Aug. 16, has not yet occurred. Given the major changes required by Order No. 2023, it is likely that there will be requests for extension of time.

However, given the fact that FERC specifically shortened the compliance deadline from 180 to 90 days, some transmission providers may perceive a sense of urgency, and aim to provide compliance filings within 90 days. The final rule leaves it to each transmission provider to propose an effective date for implementation of the changes.

Order No. 2023 stems from the fact that the wave of new renewable clean energy generation, which is largely driven by state public policies incentivizing the development of this type of generation, is facing significant challenges in time and cost to interconnect to the transmission system.

The commission has tried to address these issues in previous rulemakings, such as Order No. 845.[4] But queue backlogs and major network upgrade responsibilities for single generators still impede interconnection.

This, in turn, increases costs, delays new generation and slows the much-needed transition to the future grid.

In the final rule, the commission determines that the existing processes are unacceptable under the Federal Power Act, stating that :

[T]he existing pro forma generator interconnection procedures and agreements are insufficient to ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent, and timely manner, thereby ensuring that rates, terms, and conditions for Commission-jurisdictional services are just, reasonable, and not unduly discriminatory or preferential.[5]



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Accordingly, the final rule requires reforms to the pro forma large generator interconnection process and agreement, and the pro forma small generator interconnection process and agreement.

Specifically, as explained further below, the reforms are intended to: (1) implement a first-ready, first-served cluster study process for all public utility transmission providers; (2) increase the speed of interconnection queue processing; and (3) incorporate technological advancements into the interconnection process.

This article highlights some of the key reforms coming out of the final rule, and notes some implications of these reforms.

The final rule disposes of the first-come, first-served serial interconnection process, in favor of a first-ready, first-served cluster study process that requires transmission providers to receive and study interconnection requests in clusters.[6] The use of clusters is intended to streamline the interconnection process and improve efficiency and certainty for interconnection customers.

Instead of interconnection customers being able to submit an interconnection request at any time in order to secure a queue position, under the final rule, transmission providers will open cluster windows on a periodic basis, but at least annually, and form clusters for purposes of interconnection studies and determination of network upgrade responsibility.[7]

Within each cluster, all interconnection requests will be studied on an equal priority basis.[8] As a result, the final rule places less importance on an individual interconnection customer's queue position.

Transmission providers are given flexibility in determining how best to form clusters, such as on a geographic or electrical basis, or based on other factors.[9]

This change to clustering for all will be a significant change to the current first-come, first-served serial interconnection process, and will cause some significant disruption and uncertainty initially as it gets established. However, overall, this new process could result in more efficient queue processing, and more fair cost allocation among multiple generators that will all benefit from the same network upgrades.

Many transmission providers — including PJM Interconnection LLC on a broad basis, ISO New England Inc. on a more limited basis, and individual transmission providers in the Western Interconnection — already use some form of clustering to perform interconnection studies. Therefore, many developers may already have experience with at least some form of cluster interconnection process.

Important in the near term, the final rule sets forth transitional provisions for certain interconnection customers who are already in the queue. The commission is proposing to retain the first-come, first-served serial interconnection process for some generators already in the interconnection process under transition provisions.[10]

Additionally, the final rule includes provisions for transitional cluster studies for existing interconnection customers who are in later stages of the process.[11] Developers who have interconnection requests pending in the queue will need to carefully assess their interconnection study status, and the risks and benefits of choosing a path under the transition provisions of the final rule.

Along with clustering comes a first-ready, first-served approach, with related provisions to discourage speculative projects and enable those that are ready to move forward more quickly to be interconnected. The final rule increases the financial obligations and readiness requirements for interconnection customers looking to join, and proceed through, an interconnection queue.

Notably, however, the final rule does not require nonfinancial commercial readiness demonstrations, including offtake agreements or other contractual arrangements — such as, for example, a power purchase agreement under a state public policy procurement of offshore wind generation — to demonstrate commercial readiness.[12]

Instead, the increase in financial deposit obligations and strong up-front site control requirements are intended to discourage speculative interconnection requests. These changes will tend to reduce purely speculative projects — but will also reduce flexibility for developers with new projects that are more than speculative, but that have issues to resolve.

To help developers get a clearer view of the transmission system, the final rule requires transmission providers to provide more detailed information on the transmission related to the viability of potential points of interconnection prior to entering the queue.[13]

Specific to the readiness requirements noted above, the final rule tightens the site control requirements for generators. Interconnection customers must now demonstrate 90% site control at the time of the interconnection request. They must also have at least an exclusive option to lease the site, and are limited in their ability to provide a deposit in lieu of site control.[14]

These new rules regarding site control will require developers to focus more time, effort and expenditures on securing site control before submitting their initial interconnection requests.

Given the timing of the cluster study windows, if a developer is not able to secure site control — or other interconnection request requirements — by the time the cluster window closes, it may have to wait up to a year to enter the queue, depending on the timing of the transmission provider's cluster windows.

Also related to the desire to discourage speculative projects, the final rule imposes significant financial penalties for withdrawing from the queue.[15] The financial penalties for withdrawal increase in amount, based on the stage the customer withdraws from the interconnection process, and become increasingly more expensive later in the process.

Customers can only withdraw and avoid penalties in limited circumstances, such as discovering their network upgrade costs increased significantly after receiving the cluster study report or individual facilities study report.[16]

To encourage transmission providers to efficiently process interconnection requests, the final rule removes the reasonable efforts standard for transmission providers conducting studies, and instead imposes penalties on the transmission provider for study delays.[17]

Some industry participants opposed this change, on the grounds that the penalty costs would ultimately get passed on to transmission customers. Others opposed this change under the view that it removes needed flexibility to address unavoidable issues encountered during the interconnection study process.

To address the first concern, all transmission providers that are not regional transmission organizations or independent system operators, as well as transmission-owning members of RTO and ISOs, are prohibited from recovering the costs of delay penalties through transmission rates.

The commission also determined that transmission providers cannot recover costs for a penalty from an interconnection customer even if a delay is caused by the interconnection customer.[18] While this prohibition may seem questionable, the commission offered that if a delay is caused by an interconnection customer, then the transmission provider would have a "potentially compelling" basis for the commission to grant a waiver of the study delay penalties.[19]

For RTO and ISOs, however, the commission determined that these entities could submit an FPA Section 205 filing to propose a default structure for recovering study delay penalties, or submit individual filings to recover costs of any specific delay penalties.[20]

The commission also clarified that, because RTO and ISO studies are often conducted by transmission-owning members, study delay penalties are to be imposed directly on transmission-owning member that conduct late studies.[21]

To help provide more certainty and efficiency with respect to interconnection impacts on affected systems, the final rule requires a uniform affected system study process, including a pro forma affected system study agreement and a pro forma affected system facilities construction agreement.[22]

These changes — including providing for affected system upgrade cost allocation — will help address the lack of clear rules on cost allocation and timing for how affected system interconnection impacts are addressed, and should be welcomed by transmission providers and developers alike.

Many elements of the final rule as discussed herein remove flexibility from the interconnection process. But in order to recognize the new types of generation seeking to interconnect — primarily wind, solar and battery storage — the final rule establishes new requirements for including technological advancements into the interconnection process that generally allow for greater flexibility for developers.[23]

First, transmission providers must allow multiple generating facilities to submit a single interconnection request to collocate on a shared site behind a single point of interconnection with a single terminal voltage.

Also, the final rule clarifies that the addition of a new generating facility to an existing request, if submitted prior to the execution of the facilities study agreement, is not automatically a material modification. Even after the execution of the facilities study agreement, the transmission provider has discretion to treat requests to add a generating facility as a material modification or not.

Second, transmission providers may allow customers to access surplus interconnection service subject to an executed large generator interconnection agreement, rather than wait until the original generator is operational.

Third, to ensure reliable interconnection of electric storage devices, transmission providers are required to use operating assumptions in interconnection studies to reflect the charging

behaviors of electric storage resources.

Fourth, transmission providers must fully evaluate and consider using alternative transmission technologies as an alternative to network transmission upgrades during the interconnection study process.

Related to the reliable operation of renewable generation, transmission providers must establish ride-through requirements for nonsynchronous generating facilities, to support reliability during abnormal voltage and frequency conditions.

In general, these requirements are an effort to take into account the changing nature of many generation technologies, and are a clear effort on the part of the commission to stay ahead of the curve when it comes to incorporating advanced technology into the transmission system.

Finally, regarding compliance filings, the final rule provides only 90 days from the date of publication in the Federal Register for compliance filings. As of Aug. 16, Order No. 2023 has not been published in the Federal Register.

Given the major changes required by Order No. 2023, and the challenges transmission providers — particularly RTO and ISOs — will face with extensive stakeholder review requirements, it is likely there will be extension of time requests.

As noted earlier, given the fact that FERC specifically shortened the compliance deadline from 180 to 90 days, some transmission providers may perceive a sense of urgency, and aim to provide compliance filings within the 90 days. The final rule leaves it to each transmission provider to propose an effective date for implementation of the changes.

Non-ISOs and non-RTOs must justify any proposed deviations from the pro forma language under either the "consistent with or superior to" standard or the "regional differences" rationale. ISOs and RTOs must justify any proposed deviations under the "interdependent entity variation" standard.

Given the fairly prescriptive nature of much of the final rule, substantial deviations from the pro forma provisions will likely be difficult to successfully justify, especially for non-ISOs and non-RTOs.

Overall, the commission's final rule aims to ensure just and reasonable rates by improving efficiency, information access and uniformity throughout the interconnection process.

While many transmission providers and generation developers who will be affected by the final rule already have some experience with cluster study processes, the final rule will cause significant changes, especially during the transition.

With the implementation of readiness requirements and withdrawal penalties, and the removal of the reasonable efforts standard, generation developers will experience significant impacts in how they go about developing and interconnecting new generation, and will need guidance to work through the new process and rules.

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[1] Improvements to Generator Interconnection Procedures and Agreements, 184 FERC ¶ 61,054 (2023) (Order No. 2023). The Final Rule is available here: <https://www.ferc.gov/media/e-1-order-2023-rm22-14-000>.

[2] Order No. 2023 at P 1.

[3] Commissioner Danyl wrote separately to note his misgivings for this type of broad rulemaking and his preference for individual filings from utilities under Section 205 of the Federal Power Act, to encourage use of the independent entity variation and the "consistent with or superior to" standard for variations from the final rule, and to note that he will thoroughly review any requests for rehearing. Commissioner Clements wrote separately to note that deeper reforms are necessary to resolve fundamental challenges with interconnection processes, and that additional nuts-and-bolts changes could enhance the effectiveness of a variety of interconnection processes. Finally, Commissioner Christie wrote separately to support not mandating the use of specific grid-enhancing technology, and to express concern that study delay penalties will be inappropriately allocated to consumers.

[4] See Reform of Generator Interconnection Procs. & Agreements, Order No. 845, 83 FR 21342 (May 9, 2018), 163 FERC ¶ 61,043, at P 24 (2018), order on reh'g, Order No. 845-A, 84 FR 8156 (Mar. 6, 2019) 166 FERC ¶ 61,137, order on reh'g, Order No. 845-B, 168 FERC ¶ 61,092 (2019).

[5] Order No. 2023 at P 37.

[6] *Id.* at P 177.

[7] *Id.* at P 277.

[8] *Id.* at P 278.

[9] *Id.* at P 363.

[10] *Id.* at P 855.

[11] *Id.*

[12] *Id.* at P 690.

[13] Such as in the form of the required "heatmap." Order No. 2023 at P 135.

[14] *Id.* at P 584.

[15] *Id.* at P 780.

[16] *Id.* at P 783.

[17] Id. at P 962.

[18] Id.

[19] Id. at P 993.

[20] Id. at P 994.

[21] Id. at P 995.

[22] Id. at P 1032.

[23] Id. at PP 1346, 1406, 1436, 1509.