April 1, 2024

Federal Energy Regulatory Commission Affirms Final Interconnection Rule

On March 21, 2024, the Federal Energy Regulatory Commission (FERC or the Commission) issued Order No. 2023-A,[1] an Order on Rehearing and Clarification of Order No. 2023.[2] Order No. 2023 was issued on July 28, 2023, and set forth large-scale reforms to the Commission's *pro forma* Large and Small Generator Interconnection Procedures (LGIP and SGIP, respectively) and Agreements (LGIA and SGIA, respectively). The Commission received 32 timely filed requests for rehearing and/or clarification as well as two additional requests for clarification of Order No. 2023. In response to these requests, in Order No. 2023-A, the Commission sustained its finding that the existing *pro forma* LGIP, LGIA, SGIP and SGIA are unjust, unreasonable, and unduly discriminatory or preferential and require the reforms specified in Order No. 2023, including those regarding withdrawal penalties, schedules for interconnection studies and related delay penalties.[3] The Commission restated its belief that the broad suite of reforms presented in Order No. 2023 as a whole is necessary 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.[4] While largely sustaining the reforms of Order No. 2023, the Commission denied several requests for rehearing and/or clarification that would have expanded the reforms further, thereby maintaining the design of Order No. 2023 and not upsetting compliance packages already prepared in response to Order No. 2023. Compliance filings in response to Order No. 2023 were previously due on April 3, 2024. In Order No. 2023-A, the Commission directs further compliance and directs that transmission providers submit compliance filings within 30 days of the publication of Order No. 2023-A in the *Federal Register*. As of the date of the publication of this Advisory, Order No. 2023-A has not yet been published in the *Federal Register*. This extension of time for compliance will also extend timelines related to transition period under Order No. 2023. As discussed herein, while the Commission officially granted rehearing and set aside Order No. 2023 on four items and granted clarifications on 13 topics, the Commission directed several further revisions to the *pro forma* LGIP, LGIA, SGIP and SGIA. The four points that the Commission officially granted rehearing on are:

1. Where an interconnection customer is in the interconnection queue of a transmission provider that currently uses, or is transitioning to, a cluster study process and the transmission provider proposes on compliance to adopt new readiness requirements for its annual cluster study, the interconnection customer must comply with the transmission provider's new readiness requirements within 60 days of the Commission-approved effective date of the transmission provider's compliance filing, where such readiness requirements are applicable given the status of the individual interconnection customer in the queue;
2. A network upgrade that is required for multiple interconnection customers in a cluster may be considered a stand-alone network upgrade if all such interconnection customers mutually agree to exercise the option to build;
3. Transmission providers must complete their determination that an interconnection request is valid by the close of the cluster request window such that only interconnection customers with valid interconnection requests proceed to the customer engagement window; and
4. Acceptable forms of security for the Commercial Readiness Deposit and deposits prior to the Transitional Serial Study, the Transitional Cluster Study, the Cluster Restudy and the Interconnection Facilities Study should include not only cash or an irrevocable letter of credit but also surety bonds or other forms of financial security that are reasonably acceptable to the transmission provider.

The 13 topics the Commission granted clarification on are: (1) Conflicts with ongoing queue reform efforts; (2) Public interconnection information; (3) Cluster study process; (4) Allocation of cluster network upgrade costs; (5) Shared network upgrades; (6) Withdrawal penalties; (7) Study delay penalty and appeal structure; (8) Affected systems; (9) Revisions to the material modification process to require consideration of generating facility additions; (10) Availability of surplus interconnection service; (11) Operating assumptions for interconnection studies (12) Consideration of the enumerated alternative transmission technologies in interconnection studies; and (13) Ride-through requirements. Overall, as discussed herein, the Commission largely sustained its findings in Order No. 2023 but granted clarification on several items and provided a comprehensive explanation for its decision to revoke the reasonable efforts standard and impose study deadlines and study delay penalties. The Commission has developed a record to justify its decision in anticipation for those arguments to be raised on appeal. Further, the Commission emphasized in Order No. 2023-A that transmission providers may deviate from the requirements of Order Nos. 2023 and 2023-A but that deviations must be sufficiently explained under the "consistent with or superior to" standard for non-RTO transmission providers and the "independent entity variation" standard for RTO/ISOs. This Advisory discusses the Commission's findings in Order No. 2023-A, but it does not seek to resummarize Order No. 2023. For a summary of Order No. 2023, see here.

I. Arguments Regarding Conflicts With Ongoing Queue Reform Efforts and Evaluation of Variations on Compliance

The Commission received several requests for rehearing and clarification regarding ongoing efforts to implement cluster study processes and the compliance obligation for transmission providers with existing cluster study processes, such as PJM. The Commission clarified that all transmission providers, including those with existing cluster study processes, have a compliance obligation to review and modify their current *pro forma* interconnection procedures and *pro forma* interconnection agreements to comply with Order No. 2023.[5] However, those transmission providers that already adopted or are transitioning to a cluster study process are not required to implement the transition process laid out in Order No. 2023 or to file the *pro forma* agreements and related appendices in their compliance filings.[6]

II. Reforms To Implement a First-Ready, First-Served Cluster Study Process

One of the most significant reforms of Order No. 2023 was the move to a first-ready, first-served cluster interconnection process from a first-come, first-served serial interconnection process. The Commission sustained its finding from Order No. 2023 that the move to a first-ready, first-served interconnection process will increase efficiency and provide greater certainty with regard to interconnection timing and network upgrade costs. The Commission provided some clarifications, granted rehearing on stand-alone network upgrades and made several minor corrections to the *pro forma* LGIP and LGIA.[7] **Heatmaps.** The Commission upheld its requirement that transmission providers maintain and make publicly available an interactive visual representation of available interconnection capacity (i.e., a "heatmap") to provide comparable information to interconnection customers prior to entering the queue.[8] The Commission denied all requests for rehearing of the heatmap requirement but clarified that transmission providers that do not conduct transition periods do not need to make their heatmap available until 360 calendar days after the Commission-approved effective date of the transmission provider's Order No. 2023 compliance filing.[9] The Commission also confirmed that it requires heatmaps to at least be based on the Network Resource Interconnection Service standard assumptions of full deliverability, but that a less stringent Energy Resource Interconnection standard could also be used to provide additional information.[10] **Cluster Study Process.** The Commission largely upheld its previous findings on the cluster study process, with some clarifications, as noted herein. Significantly, the Commission granted rehearing and set aside the definition of "stand alone network upgrades" in the *pro forma* LGIP and LGIA to enable the interconnection customer option to build shared network upgrades. The Commission's revisions to the definition of stand alone network upgrades and the addition to the option to build section in the *pro forma* LGIA (Article 5.1.3) are intended to allow interconnection customers to exercise the option to build whether the stand alone network upgrade is attributable to a single interconnection customer or to a shared network upgrade shared by multiple interconnection customers.[11] This was an important change from an interconnection customer perspective in preserving the option to build in the context of the cluster process. Among several clarifications on the cluster study process, the Commission also:

- Upheld its decision to rely on the transmission provider to assess whether changes such as project size reductions in the cluster study process, except as part of Sections 4.4.1 and 4.4.2, and the Material Modification process, would have a material impact on the cost or timing of any interconnection requests with an equal or later queue position.[12]
- Rejected arguments that the Customer Engagement Window is too short, and declined to require that transmission owners attend scoping meetings where the transmission owner and the transmission provider are separate entities.[13]
- Explained that transmission providers can continue performing feasibility studies as an independent entity variation if properly justified.[14]
- Restated that interconnection customers must select a definitive point of interconnection (POI) to be studied when executing the cluster study agreement. According to the Commission, allowing multiple POIs (whether they are "electrically proximate" or not) to be studied before the interconnection customer is required to select the definitive point of interconnection, fails to take into account the fact that the study results of other interconnection customers may be adversely impacted if an interconnection customer changes its POI post cluster study.[15] However, requested changes to the POI early in the cluster study process are not necessarily material modifications.
- Maintained the 150-day cluster study deadline but granted requests for clarification that Order No. 2023 does not preempt transmission providers from proposing tariff-defined study deadlines that may differ from the 150-day schedule.[16] Longer deadlines will require significant justification.[17]
- Clarified that during the 45-day cluster request window, interconnection customers are not limited to one 10-business day opportunity to cure a deficiency in their applications, and they may receive as many cure periods as needed as long as the end of such cure periods fall prior to the last day of the 45-day cluster request window.[18] The Commission granted rehearing and set aside P 234 of Order No. 2023, clarifying that an interconnection customer's cure period ends at the close of the cluster request window at the latest. The Commission accordingly modified Section 3.4.5 of the *pro forma* LGIP to clarify that all items in *pro forma* LGIP Section 3.4.2 must be received during a cluster request window.[19]

Allocation of Cluster Network Upgrade Costs. The Commission clarified that consistent with the rule of reason, it will consider details of a transmission provider's proposed proportional impact method and whether those details should be in the Tariff in individual compliance filings. For substation network upgrade cost allocation, the Commission clarified that the cost allocation is based on the number of interconnection facilities connecting to the substation located at the POI. Accordingly, transmission providers must first allocate the costs of substation network upgrades on a per capita basis for each interconnection facility connecting to the substation and then allocate those costs on a per capita basis between each generating facility using the interconnection facility in accordance with Section 4.2.1.1.a of the *pro forma* LGIP.[20] **Increased Financial Commitments and Readiness Requirements.** The Commission issued several clarifications of the financial and readiness requirements, including site control and penalties. Notably, the Commission:

- Granted rehearing and found that acceptable forms of security for the commercial readiness deposit and deposits prior to the transitional serial study, the transitional cluster study, the cluster restudy and the interconnection facilities study should include not only cash or an irrevocable letter of credit but also surety bonds or other forms of financial security that are reasonably acceptable to the transmission provider. Accordingly, Sections 3.4.2, 5.1.1.1, 5.1.1.2, 7.5 and 8.1 of the *pro forma* LGIP were modified to reflect this finding.[21]
- Modified Sections 3.1.1.1 and 13.3 of the *pro forma* LGIP to clarify that the $5,000 application fee is nonrefundable and that the study deposit structure includes an initial study deposit at the beginning of the process rather than separate deposits before each phase of the study.[22]
- Largely sustained its findings from Order No. 2023 on the requirements for site control. The Commission denied the request to extend site control demonstration beyond the land needed for the generating facility.[23]
- Affirmed the withdrawal penalty structure adopted in Order No. 2023.[24] The Commission also clarified that LGIP Section 3.7.1.2.1 requires transmission providers to use the withdrawal penalties to first fund all the interconnection studies conducted for interconnection customers in the cluster, including cluster restudies and the interconnection facilities study.[25]

- Clarified that the transitional process withdrawal penalty (nine-times study cost) is distinct from the withdrawal penalty assessed under the normal process (calculated pursuant to LGIP Section 3.7.1). The Commission accordingly modified Sections 5.1.1, 5.1.1.1 and 5.1.1.2 of the *pro forma* [26] The Commission further clarified that study costs include *all* costs incurred by the interconnection customer during the interconnection study process prior to the effective date of the transmission provider's Order No. 2023 compliance filing.[27]

Transition Process. The Commission upheld its decision to set the eligibility cutoff date as 30 days after the filing date of the transmission provider's initial compliance filing.[28] The Commission also upheld its findings on the withdrawal penalty amount during the transition process.[29]

III. Reforms To Increase the Speed of Interconnection Queue Processing

In this section, the Commission made some clarifications, but it largely upheld its finding that the reasonable efforts standard is no longer just and reasonable and that study deadlines and late study penalties are an appropriate replacement for the reasonable efforts standard. The Commission also made several modifications to its previous findings on the affected system process and corresponding revisions to the LGIP and LGIA. **Elimination of the Reasonable Efforts Standard and Implementation of a Replacement Regime.** As noted, the Commission received numerous requests for rehearing on the removal of the reasonable efforts standard and the late study penalty scheme. These rehearing requests focused on: (1) the decision being unsupported by substantial evidence; (2) the burden the penalties and timeframes place on transmission providers; (3) the penalty structure violates due process, imposes a strict liability regime and/or is unconstitutional; and (4) the study deadlines and penalty structure are outside the Commission's statutory authority and contrary to Commission precedent.[30] The Commission rejected all arguments on rehearing, finding that this decision is warranted under Federal Power Act Section 206 because it addresses the unjust and unreasonable rates resulting from interconnection queue delays and backlogs.[31] Further, the Commission was unpersuaded by attempts to minimize the responsibility transmission providers have for—and the ways in which they can effectuate—the timely completion of interconnection studies and overall found that the entity that is most responsible for the timing of the study is the transmission provider.[32] The Commission upholds Order No. 2023's penalty structure as a component of a *comprehensive package of reforms* to remedy the problem of severe interconnection queue delays and backlogs.[33] With respect to the elimination of the reasonable efforts standard and study delay penalties, the Commission also:

- Agreed that there are differences between RTOs/ISOs and non-RTO transmission providers, but concluded that the penalty regime adopted in Order No. 2023 sufficiently accounts for the differences.[34]
- Upheld its finding that it is appropriate to address cost recovery issues in individual proceedings that can account for variations in tariffs in each RTO/ISO region.[35]
- Clarified that study delay penalties must be distributed on a pro rata basis proportionate to the final study costs paid by each interconnection customer in the relevant study. This approach ensures that the distribution of the penalty (i.e., the amount of the "offset" each interconnection customer receives) is related to the costs paid by the interconnection customer for the relevant study.[36]
- Clarified that the study delay penalties will not incur interest prior to distribution of the penalty funds, nor will the entity conducting the study have to pay interest on study delay penalties.[37]
- Clarified that delayed studies will apply per-study and per-business day that the study is delayed past the tariff-specific deadline.[38]
- Restated that Order No. 2023 did not require adoption of any specific RTO/ISO penalty recovery mechanism.[39]
- Explained that transmission providers are not required to collect or earmark any late study penalty prior to concluding the appeals process under Section 3.9(3) of the *pro forma*[40]

Affected Systems. The Commission clarified several timing-related items in the affected system study process and made corresponding changes to the Affected System Study Agreements and LGIP.[41] Specifically, the Commission created or made revisions to *pro forma* LGIP Sections 3.6.2, 3.6.3, 9.2.1, 9.2.2 and 9.5. For brevity's sake, we have not here described all of those revisions. The Commission restated that the affected system network upgrade reimbursement provisions in the

pro forma affected system facilities construction agreements are a codification of existing Commission policy and are not a new policy proposal and therefore are unnecessary. The Commission removed Sections 3.1.2.2 (Recommencing of Work) and 3.1.2.3 (Right to Suspend Due to Default) from the *pro forma* affected system facilities construction agreements.

IV. Reforms To Incorporate Technological Advancements Into the Interconnection Process

The Commission received several requests for rehearing on the efforts in Order No. 2023 to incorporate technological advancements into the interconnection process. Similar to the other topics discussed herein, the Commission largely sustained its findings from Order No. 2023 and issued several clarifications and modifications to tariff language. Notably, the Commission:

- Sustained its findings in Order No. 2023 that transmission providers must allow more than one generating facility to co-locate on a shared site behind a single POI and share a single interconnection request, and that such co-located generating facilities can be owned by a single interconnection customer with multiple generating facilities sharing a site or by multiple interconnection customers that have a contract or other agreement that allows for shared land use.[42]
- Clarified that interconnection customers may continue to request changes to proposed generating facilities at any time; however, transmission providers only need to assess the materiality of the addition of a generating facility to an existing interconnection request if the request is submitted before the interconnection customer returns the executed facilities study agreement to the transmission provider.[43] The Commission noted that it does not require any particular outcome from this evaluation, but it allows transmission providers to deem the proposed addition of a generating facility at the same POI a material modification if it impacts the cost or timing of any interconnection request with an equal or later queue position.[44]
- Clarified that the allowable decrease of up to 60% of a generating facility's electrical output may occur during the customer engagement window (i.e., prior to the return of the cluster study agreement from the transmission provider to the interconnection customer). It also noted that interconnection customers may propose a decrease in the output of the generation facility after the cluster study report. An additional 15% decrease of electrical output of the proposed project must not be considered a material modification if due to a decrease in plant size (MW) or a decrease in interconnection service level accomplished by applying transmission provider-approved injection-limiting equipment.[45]
- Granted a request for clarification that Order No. 2023 requires transmission providers to allow interconnection customers to *apply for* —not begin receiving—surplus interconnection service once the underlying LGIA is executed or filed unexecuted.[46]
- Sustained the finding that electric storage resources have operating parameters that differ from traditional types of generating facilities, such as their ability to both inject power and withdraw power.[47]
- Clarified that its reforms do not require transmission providers to develop new base cases for each interconnecting electric storage resource's charging plans. Rather, transmission providers must reflect on whether an electric storage resource will charge in any studies of peak load conditions in the interconnection process.[48] If an interconnection customer fails to operate its electric storage resource in accordance with the operating assumptions in its LGIA (absent instructions from the transmission provider to the contrary), the transmission provider may consider the electric storage resource to be in breach and may pursue termination of the LGIA.[49]
- Restated that electric storage resources charging should not be reflected as equivalent to firm customer end-use load in interconnection studies for purposes of determining any necessary network upgrades if the interconnection customer agrees to memorialize its operating assumptions in the LGIA and installs control technologies, if required by the transmission provider.[50]
- Sustained the discretion that Order No. 2023 affords transmission providers in determining whether to use an alternative transmission technology.[51] However, Order No. 2023 did not give transmission providers unfettered discretion to disregard alternative transmission technologies. In spite of the discretion provided to transmission providers, they must explain their evaluation of the enumerated alternative transmission technologies for feasibility, cost and time savings as

an alternative to a traditional network upgrade in their applicable study report(s), and their use determinations must be consistent with good utility practice, applicable reliability standards, and applicable laws and regulations.[52]

- Sustained the application of specific performance standards to evaluate alternative transmission technologies and revised *pro forma* LGIP Sections 7.3, 3.3.6 and 3.4.10 to account for the use of such standards.[53]
- Addressed requests for rehearings on specific enumerated alternative transmission technologies (ATTs) and made the following findings:
    - Transmission switching shall not be included in the list of enumerated ATTs.[54]
    - There are a range of permissible present and future advanced conductor technologies that fall within this class of technologies that transmission providers are required to evaluate pursuant to Order No. 2023.[55]
    - Dynamic line ratings shall not be included in the list of enumerated ATTs for several reasons, including the limited record evidence that dynamic line ratings are well suited to meet reliability goals of interconnection studies and the fact that dynamic line ratings are dependent on weather conditions to reliably deliver energy.
    - Energy storage serving as a transmission asset shall not be included in the list of ATTs.[56]
- Sustained its modeling requirements for non-synchronous generating facilities put forth in Order No. 2023.
- Clarified that a generating facility's inability to prioritize reactive power without a reduction in active power is considered one of the "physical limitations of the generating facility" that provides an exception, albeit limited, to the requirement that the generating facility continue active power production during disturbance and post disturbance periods at pre-disturbance levels.[57] The Commission also revised Section 9.7.3 of the *pro forma* LGIA and Article 1.5.7 of the *pro forma* SGIA to provide clarity on the use of reactive power mode for non-synchronous generating facilities.[58]

V. Compliance Procedures

In order to incorporate the changes of Order No. 2023-A, the Commission extended the deadline for compliance filings until 30 days after Order No. 2023-A is published in the *Federal Register*, which as of the date of this Advisory has not yet occurred. The Commission clarified that transmission providers may propose effective dates in their compliance filings that align with their existing queue-processing dates, such as the start of a new processing window. The Commission also clarified that it will consider, and may grant, on a case-by-case basis, requests from transmission providers for effective dates that predate the Commission's order on compliance filings.[59] **Day Pitney LLP has a team of lawyers who cover interconnection matters, including in and outside the RTO/ISO context, for project developers and for transmission provider**

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[1] *Improvements to Generator Interconnection Procedures and Agreements*, Order No. 2023-A, 186 FERC ¶ 61,199 (2024) (Order No. 2023-A), available at https://elibrary.ferc.gov/eLibrary/filedownload?fileid=56CF9ABC-3FAE-C28D-969F-8E63A0D00000. [2] *Improvements to Generator Interconnection Procedures and Agreements*, Order No. 2023, 88 Fed. Reg. 61,014 (Sep. 6, 2023), 184 FERC ¶ 61,054 (2023) (Order No. 2023). [3] *Id.* at P 35. [4] *Id.* at P 48 (citing Order No. 2023 at P 59). [5] *Id.* at P 73. [6] *Id.* The Commission clarified that these transmission providers are not prohibited from adopting the transition process outlined in Order No. 2023 and that where transmission providers propose variations to the Order No. 2023 transition process, the Commission will evaluate such proposals under the consistent with or superior to standard for non-RTO transmission providers and the independent entity variation standard for RTOs/ISOs. *Id.* at P 74. [7] *Id.* at PP 164-167. [8] *Id.* at PP 95-105 (finding that the purpose of the heatmap to provide comparable information to all interconnection customers will help ensure an efficient interconnection process). [9] *Id.* at P 102. [10] Id. at P 95. [11] *Id.* at P 143. The new definition of Stand Alone Network Upgrades is: "Network Upgrades that are not part of an Affected System that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction [and the following conditions are met: (1) a Substation Network Upgrade must only be required for a single Interconnection Customer in the Cluster and no other Interconnection Customer in that Cluster is required to interconnect to the same Substation Network Upgrades, and (2) a Syst

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