

122 FERC ¶ 61,252  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Joseph T. Kelliher, Chairman;  
Sudeen G. Kelly, Marc Spitzer,  
Philip D. Moeller, and Jon Wellinghoff.

Interconnection Queuing Practices

Docket No. AD08-2-000

ORDER ON TECHNICAL CONFERENCE

(Issued March 20, 2008)

1. This order follows up on our December 11, 2007, technical conference (Technical Conference) on interconnection queuing practices. In this order, we direct the Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) to file reports on the status of their efforts to improve the processing of their interconnection queues. We also provide guidance to assist the RTOs and ISOs and their stakeholders in those efforts.

**Background**

2. The Commission issued Order No. 2003 to standardize the agreements and procedures related to the interconnection of large generating facilities.<sup>1</sup> We found that “[a] standard set of procedures as part of the [Open Access Transmission Tariff] for all jurisdictional transmission facilities will minimize opportunities for undue discrimination and expedite the development of new generation, while protecting reliability and ensuring

---

<sup>1</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003), *order on reh’g*, Order No. 2003-A, FERC Stats. & Regs. ¶ 31,160, *order on reh’g*, Order No. 2003-B, FERC Stats. & Regs. ¶ 31,171 (2004), *order on reh’g*, Order No. 2003-C, FERC Stats. & Regs. ¶ 31,190 (2005), *aff’d sub nom. Nat’l Ass’n of Regulatory Util. Comm’rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007), *cert. denied*, 76 U.S.L.W. 3454 (Feb. 25, 2008). *See also Standardization of Small Generator Interconnection Agreements and Procedures*, Order No. 2006, FERC Stats. & Regs. ¶ 31,180, *order on reh’g*, Order No. 2006-A, FERC Stats. & Regs. ¶ 31,196 (2005), *order granting clarification*, Order No. 2006-B, FERC Stats. & Regs. ¶ 31,221 (2006), *appeal pending sub nom. Consol. Edison Co. of N.Y., Inc. v. FERC*, Nos. 06-1275 (D.C. Cir. filed July 14, 2006 and later); *Interconnection for Wind Energy*, Order No. 661, FERC Stats. & Regs. ¶ 31,186 (2005), *order on reh’g*, Order No. 661-A, FERC Stats. & Regs. ¶ 31,198 (2005).

that rates are just and reasonable.”<sup>2</sup> Key to balancing these goals was queue management procedures, including timelines that Transmission Providers<sup>3</sup> must use reasonable efforts to meet.

3. In response to concerns about the effectiveness of queue management, the Commission held the Technical Conference. The Commission also issued a notice afterward inviting comments.<sup>4</sup> The speakers at the Technical Conference and the written comments confirm that some Transmission Providers are not processing their interconnection queues with the timeliness envisioned in Order No. 2003, in certain cases greatly exceeding the timelines in their tariffs. Surges in the volume of new generation development are taxing the current queue management approach in some regions. Additionally, the unprecedented demand in some regions for new types of generation, principally renewable generation, places further stress on queue management because such generation technologies can, for example, be brought online more quickly than traditional generation. Finally, some regions have capacity markets that did not exist when the current queue management approach was developed and are struggling with how to manage their queues to accommodate those new markets.

### **Discussion**

4. The Commission is concerned about delays in processing interconnection queues. Although we are concerned about delays in all regions, the Technical Conference revealed that the delays are particularly significant in RTOs and ISOs that are attracting significant new entry. Many of the factors identified at the Technical Conference as contributing to delays are present for all Transmission Providers, independent and non-independent alike. For example, the need for restudy when multiple projects withdraw from a queue and the complexity of designing interconnections within a system with limited excess transmission capacity are not confined to RTOs and ISOs. All Transmission Providers should be evaluating whether changes are needed to their queue management practices to ensure the expediency called for by Order No. 2003. However, given the greater interest of new generation entrants in gaining access to RTO and ISO markets compared to other markets, the magnitude of the backlogs in RTO- and ISO-managed queues is particularly significant.

---

<sup>2</sup>Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P 11.

<sup>3</sup> “Transmission Provider” is a defined term under Order No. 2003. *See* Standard Large Generator Interconnection Procedures (“*pro forma* LGIP”) § 1.

<sup>4</sup> Notice Inviting Comments, Interconnection Queuing Practices, Docket Nos. AD08-2-000, *et al.* (Dec. 17, 2007).

5. These backlogs not only deprive generation developers of needed business certainty, they also undermine other important public goals. As detailed by speakers at the Technical Conference, delays in interconnecting renewable generation in the footprints of the Midwest Independent Transmission System Operator, Inc. and the California Independent System Operator Corporation are creating additional challenges in meeting state renewable portfolio standards. In the ISO New England Inc. and PJM Interconnection, L.L.C. regions, queue delays could prevent least cost resources from being available in new capacity markets auctions.

6. The Commission believes that over the long term, the improved transmission planning required under Order No. 890<sup>5</sup> will address some of the causes of the current interconnection queue problems. In particular, the planning reforms adopted by Order No. 890 should increase the transparency of planning information to all customers, increase coordination among transmission owners in each region, and otherwise result in a more robust transmission system. These improvements, in turn, should enable developers to make fewer, more tailored interconnection requests and make it easier to interconnect with the transmission system. However, while the efforts currently under way to comply with Order No. 890 hold promise for the long-term processing of interconnection queues, we cannot afford to wait until those efforts are completed to address the queue management problem.

7. We note in particular the comments of the ISO/RTO Council on the scope and nature of the interconnection queue problems facing ISOs and RTOs. According to the ISO/RTO Council, the queue backlog has increased in many of the ISOs and RTOs because of the significant new entry that is occurring. The ISO/RTO Council states that prompt action is necessary to address these problems; however, the Council urges that the Commission allow each region to develop solutions that are tailored to its specific circumstances and contends that stakeholder processes to discuss reforms are already underway in several regions.

8. While the Commission could take action to impose solutions, and may need to do so if the RTOs and ISOs do not act themselves, we agree that we should allow each region the opportunity to propose its own solution. Although there are some common issues affecting all the regions, there are also significant differences in the nature and scope of the problem from region to region; there may, therefore, be no one right answer for how to improve queue management. Further, any solution involves a balancing of

---

<sup>5</sup> *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, 72 Fed. Reg. 12,266 (Mar. 15, 2007), FERC Stats. & Regs. ¶ 31,241 (2007), *order on reh'g*, Order No. 890-A, 73 Fed. Reg. 2984 (Jan. 16, 2008), FERC Stats. & Regs. ¶ 31, 261 (2007).

interests. Therefore, we urge the RTOs and ISOs to work with their stakeholders to develop consensus proposals.

9. While each of the RTOs and ISOs represented at the conference indicated that it was evaluating its queue management, the RTOs and ISOs and their stakeholders must proceed more quickly, and the Commission intends to monitor their efforts. Thus, we direct each RTO and ISO to file a status report with the Commission within 30 days of the date of this order.<sup>6</sup> The report must describe the current size of the RTO's or ISO's interconnection queue (i.e. number of pending interconnection requests and total megawatts represented by those requests), the current projected timeframes for processing pending interconnection requests, and the nature and extent of any problems that have led to any such queue backlogs, including a discussion of how clustering has or has not alleviated those problems. The report must also explain the status of stakeholder discussions on queue reform and provide a schedule for selecting and implementing any necessary reforms, including a target date for filing any necessary tariff amendments or waivers. To assist stakeholders in their deliberations, we offer the guidance set forth below.

10. The reforms that can be implemented most quickly from a regulatory standpoint are those that do not require any revisions to an RTO's or ISO's current tariff. For example, no Commission filings are needed to increase the staff available to work on interconnection studies or adopt more efficient modeling for feasibility studies or system impact studies. Similarly, each of the RTO and ISO tariffs already provide an option for performing a single system impact study for a cluster of interconnection requests, so no further Commission filings would be necessary to take full advantage of the existing flexibility to cluster. Therefore, we urge the RTOs and ISOs when evaluating ways to improve their queue processing first to consider whether they have taken all effective steps under their current tariffs.

11. While there likely are reforms that can be implemented without the need for Commission filings, more may need to be done. Reforms necessitating tariff changes come in two forms: (1) reforms that apply to future interconnection requests as well as existing interconnection requests that are still at an early stage in the interconnection process; and (2) reforms that affect existing interconnection requests that are in later stages of the process. The issues raised by these two classes of reforms may well differ.

12. With regard to reforms applicable to future and early-stage existing interconnection requests, we note that Order No. 2003 authorizes a number of options to streamline the interconnection process. For example, Order No. 2003 already allows for the feasibility study to be combined with the system impact study at the request of the

---

<sup>6</sup> The reports will be noticed and subject to public comment.

customer.<sup>7</sup> Order No. 2003 permits Transmission Providers who perform system impact studies on a clustered basis to allocate the cost of common upgrades to members of a cluster without regard to queue position.<sup>8</sup> Further, Order No. 2003 authorizes the use of third party consultants to conduct interconnection studies.<sup>9</sup> When considering tariff changes applicable to future and early-stage existing interconnection requests, the RTOs and ISOs should first consider whether their current tariffs use all of the streamlining options already explicitly sanctioned under Order No. 2003.

13. If an RTO or ISO concludes that the options already identified in Order No. 2003 are inadequate to address its queue problems, it may consider proposing variations from Order No. 2003. Because RTOs and ISOs do not own generation and thus do not have an incentive to unduly discriminate, variations sought by an RTO or ISO are reviewed under the “independent entity variation standard.” This standard allows independent Transmission Providers flexibility in designing their interconnection procedures to accommodate regional needs.<sup>10</sup>

14. The Commission recognizes that the business of developing generation is very dynamic and requires the coordination of a whole host of factors beyond interconnection, many of which are outside the full control of the developer. In the absence of alternative sources of information about available transmission capacity, the interconnection-related study process may be the only reliable vehicle a customer has to evaluate the merits of different interconnection points and configurations. Thus, it is critical that reforms applicable to future and early-stage existing interconnection requests provide customers

---

<sup>7</sup> *Pro forma* LGIP § 6.1.

<sup>8</sup> *Id.* § 4.2.

<sup>9</sup> *Id.* § 13.4.

<sup>10</sup> Order No. 2003 at P 822-27; Order No. 2003-A at P 759. An RTO or ISO proposing a variation must demonstrate that the variation is just and reasonable and not unduly discriminatory, and would accomplish the purposes of Order No. 2003. *See, e.g., PJM Interconnection, L.L.C.*, 108 FERC ¶ 61,025, at P 7 (2004) (“[W]hen an RTO is the filing entity, the Commission will review the proposed variations to ensure that they do not provide an unwarranted opportunity for undue discrimination or produce an interconnection process that is unjust and unreasonable.”), *order denying reh’g*, 110 FERC ¶ 61,099 (2005); and *Midwest Indep. Transmission Sys. Operator, Inc.*, 117 FERC ¶ 61,128 (2006), *order on reh’g*, 119 FERC ¶ 61,097, at P 7 (2007) (rejecting a proposed pricing variation because the RTO “had not shown that the proposal would accomplish the purposes Order No. 2003 set forth as possible justifications for this type of pricing”).

with enough flexibility and information to respond to business uncertainties. At the same time, the Commission realizes that the actions of one party in the queue can affect the interests of other parties in the queue. Thus, there needs to be a way to prioritize the processing of requests on a fair basis and to ensure that the flexibility for individual generators does not undermine the certainty and speed needed for the queue as a whole.

15. Order No. 2003 struck a balance by establishing that material modifications to an interconnection request will result in loss of queue position, while allowing a customer to make multiple interconnection requests for the same basic project, if it makes a relatively modest demonstration that it is serious about the project. These requests are then processed and allocated costs on a first-come, first-served basis.<sup>11</sup> While this approach made good sense at the time Order No. 2003 was issued and still works well in many situations, it has led to some unexpected consequences, particularly in transmission systems with numerous interconnection customers and limited excess transmission capacity. In markets with numerous interconnection customers, many of those customers may be competing for the same load, and not all will be needed. Further, in systems with limited excess transmission capacity, the first-come, first-served approach to cost allocation can result in great disparities between the costs faced by the customer whose request happens to trigger the need for a network upgrade as opposed to those in lower queue positions. Moreover, the relatively small deposit amounts, coupled with the incentives produced by a first-come, first-served approach to allocating capacity, provides an incentive for developers to secure a place in the queue even for projects that may not be commercially viable. These and other factors can result in large numbers of interconnection requests being ultimately withdrawn, which in turn slows down the process by necessitating more study and restudy. While the Commission is open to considering a range of possible variations from Order No. 2003 with regard to future and early-stage existing interconnection requests, we believe that there are three types of variations that, individually or in combination, hold particular promise for speeding up queue processing while remaining faithful to the goals of Order No. 2003.

16. First, it may be appropriate to increase the requirements for getting and keeping a queue position. For example, it may be appropriate to increase the amount of the deposits required at the different stages of the process to more accurately reflect the cost of the necessary studies. Such a change would not only be consistent with traditional ratemaking principles, but would also increase the likelihood that only projects that are likely to be commercially viable (and hence willing to commit to the cost of such studies in advance) are in the queue. Such a change also would likely reduce the number of multiple interconnection requests made by the same customer for the purpose of

---

<sup>11</sup> As noted above, Order No. 2003 did allow for some flexibility in the first-come, first-served approach where a Transmission Provider performs a single system impact study for a cluster of interconnection requests.

speculating on the cost impacts of different locations. However, as discussed above, multiple requests for a single project can result from a legitimate desire to evaluate the merits of different interconnection points and configurations without having to go to the back of the queue. Therefore, the more stringent the requirements, the more important it is to ensure that customers have access to alternative sources of reliable information about available transmission capacity to help them tailor their interconnection requests more narrowly toward a single acceptable interconnection configuration. Further, the RTOs and ISOs should address the impact of any increases in the requirements on smaller customers or any other class of interconnection customers.

17. Second, elimination of the feasibility study as a separate step could reduce processing time without harming interconnection customers. Under Order No. 2003, the feasibility study is intended, in part, to provide preliminary information to assist developers in deciding whether it is even worth their while to pursue more detailed interconnection studies. Elimination of a separate feasibility study could streamline the study process and could reduce interconnection requests by screening out those customers who are not willing to pay the higher deposit required for a system impact study. However, elimination of a feasibility study phase, like increased requirements to obtain and retain a queue position, creates a greater need to develop alternative mechanisms through which customers can gather the information necessary to more narrowly tailor their interconnection requests toward a final acceptable configuration.

18. Third, there may be approaches to prioritizing queue processing that provide protection against discrimination comparable to the first-come, first-served approach, but that are more efficient. For example, there may be merit in a first-ready, first-served approach, whereby customers who demonstrate the greatest ability to move forward with project development are processed first. Further, the Commission is open to considering methods of clustering other than that provided in Order No. 2003. Order No. 2003's approach to clustering is fundamentally based on a first-come, first-served paradigm, as clusters are limited to requests filed within the same time frame, not to exceed 180 days.<sup>12</sup> Clustering that takes into account factors other than proximity of filing date may allow for more efficient studies and we are open to reviewing such proposals.

19. We note that reforms that would affect existing interconnection requests that are in later stages of the process create special circumstances that require careful consideration. Unlike reforms applicable to future and early-stage existing interconnection requests, any such reforms could significantly disrupt the activities of customers who may have taken action in reliance upon the existing process. Reforms of this sort could take the form of a

---

<sup>12</sup> See *pro forma* LGIP § 4.2. But see *id.* § 4.1 (allowing allocation of cost of common upgrades for clustered interconnection requests without regard to queue position).

filing to make generic revisions to the tariff, filings to modify individual interconnection-related agreements, or a request for a one-time waiver of the tariff.<sup>13</sup> These reforms could change both the timing and the cost allocation for a customer. Some customers may experience an overall benefit from a particular reform, while others may be disadvantaged by a reform. In still other cases, perhaps the majority, the difference between continued processing under the existing tariff provisions and processing under a reformed process may be speculative, including as to ultimate timing and cost allocation. In those cases, we would expect proponents of reform to have an easier time justifying such reform.<sup>14</sup> Whether and how a particular reform should apply to a late-stage request will depend on the specific facts. The Commission is open to considering such reforms. Further, while such reforms do pose more difficult issues than reforms applicable to future and early-stage existing requests, the Commission recognizes that they may be necessary in order to resolve current backlogs.

The Commission orders:

The RTOs and ISOs are hereby directed to file reports as discussed in the body of this order within 30 days of the date of this order.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.

---

<sup>13</sup> See, e.g., *Midwest Indep. Transmission Sys. Operator, Inc.*, 117 FERC ¶ 61,128 (2006), *order on reh'g*, 119 FERC ¶ 61,097 (2007) (rejecting as unsupported proposed tariff amendments applicable to existing interconnection agreements but without prejudice to future filings to revise individual interconnection agreements); and *Cal. Indep. Sys. Operator Corp.*, 118 FERC ¶ 61,226, *order on clarification*, 120 FERC ¶ 61,180 (2007) (granting one-time waiver of procedures for conducting clustered system impact studies despite application to protestor who had already undergone a system impact study).

<sup>14</sup> See, e.g., *New York Indep. Sys. Operator, Inc.*, 114 FERC ¶ 61,207 (2006) (granting one-time waiver of interconnection procedure noting that protestor's claim that it would incur higher costs due to potential loss of its queue position was speculative).