UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Interconnection Queuing Practices Docket No. AD08-2-000

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Driven, in part, by renewable mandates, the level of requests for generator interconnection in the Midwest ISO has exploded in recent years. As indicated in Figure 1, the Midwest ISO has received 191 generator interconnection queue requests thus far in 2007. This puts the request level on track for a 59% increase over the level of requests received in 2006. It is also more than double the level of requests received in each of the years from 2002 - 2005. Figure 2 details the megawatt (MW) level of requests received. Of the requests received, 291 are currently active and represent 71,372 MW of total generation, 55,537 MW of which is wind. It is estimated that, under current processing methods, the Midwest ISO would not be able to clear the queue until 2050. Clearly, this is an unacceptable result for all parties involved in the process.

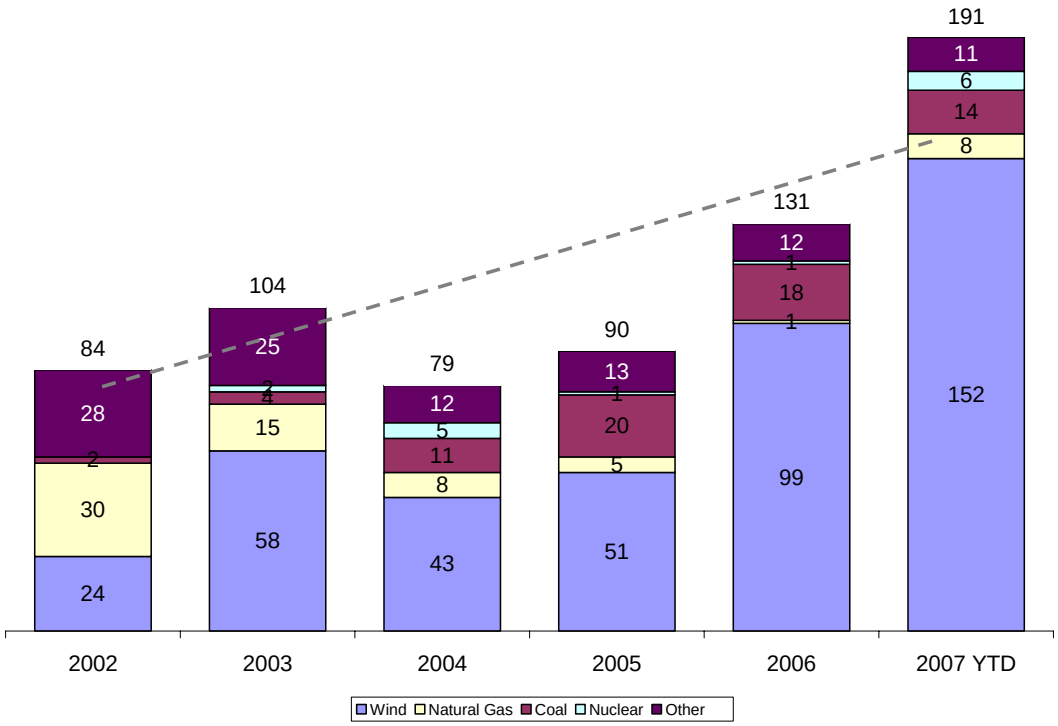


**Figure 1: Number of Generator Interconnection Requests by type for the Midwest ISO from 2002 to 2007 as of November 30, 2007**

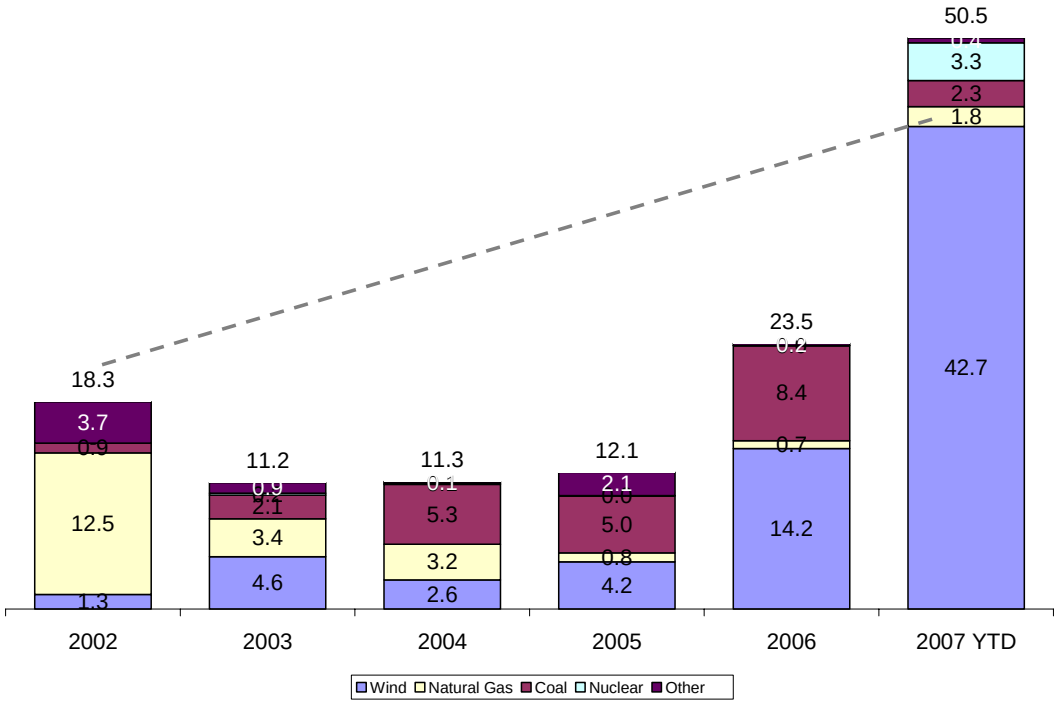


**Figure 2: Total gigawatts (GW) of Generator Interconnection Requests by type for the Midwest ISO from 2002 to 2007 as of November 30, 2007**

The current state of affairs, and the high level of stakeholder frustration which surrounds it, indicates that there have been some unintended consequences of FERC Order 2003. The process works as designed, but the design is not working in the current situation. Specifically, we hypothesize that by placing value in a queue position, rather than an interconnection agreement, with a low cost of entry and no cost for suspension at the end of the process, stakeholders are incented to enter the queue early and often. This leads to high levels of rework and delays down the road for subsequently queued projects as the earlier queued projects drop out of the queue. This notion, combined with the circumstance that many of these requests in the Midwest ISO are located in areas where significant transmission network upgrades (see Figure 3) are required to support generator interconnection, means a perfect storm has developed around the generator interconnection queue process in the Midwest. It is worth noting that, despite the backlog in the queue, 13,540 MW of generation have reached interconnection agreement since the Midwest ISO took over processing in mid-December 2001, including 4,446 MW of wind. However, reflective of the problems described above, 2,749 MW have been suspended, nearly 2,200 MW of which is wind (see Figure 4).

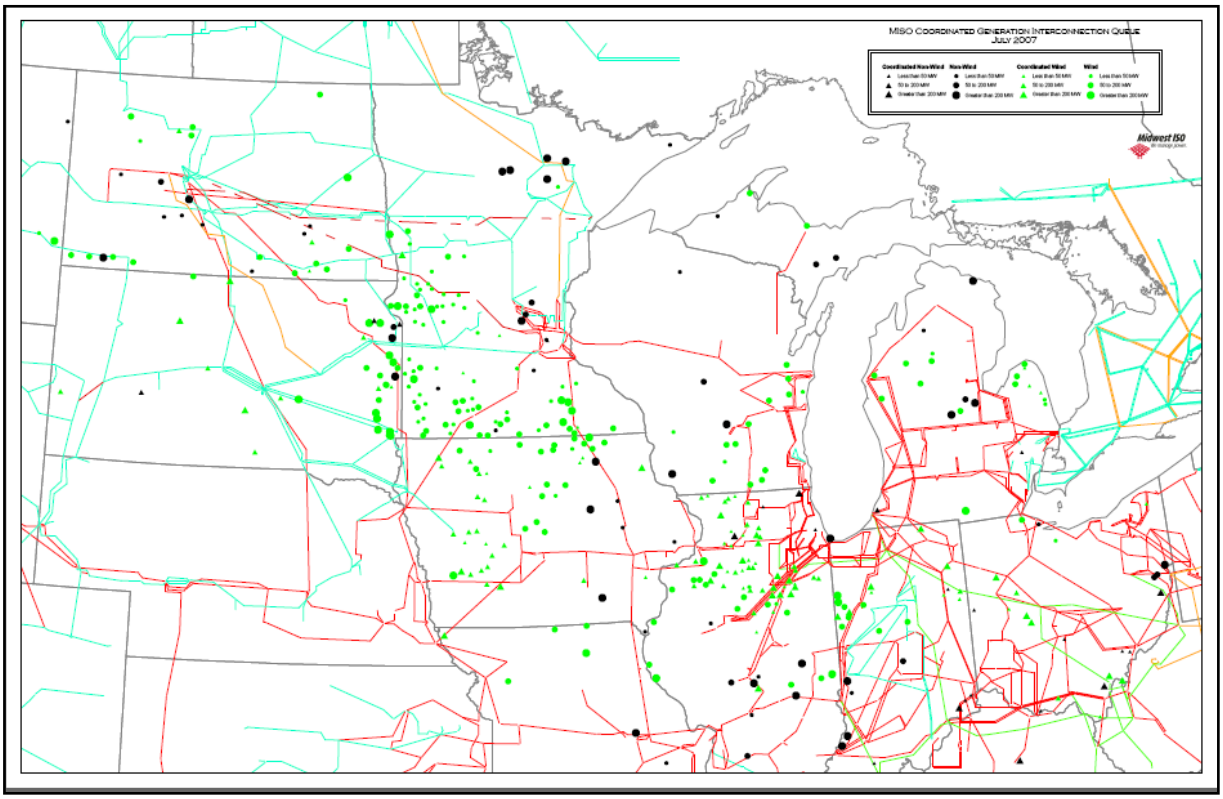


**Figure 3: Midwest ISO Generation Interconnection Queue Siting with Transmission Grid Overlay (green = Midwest ISO, black = Neighbors)**

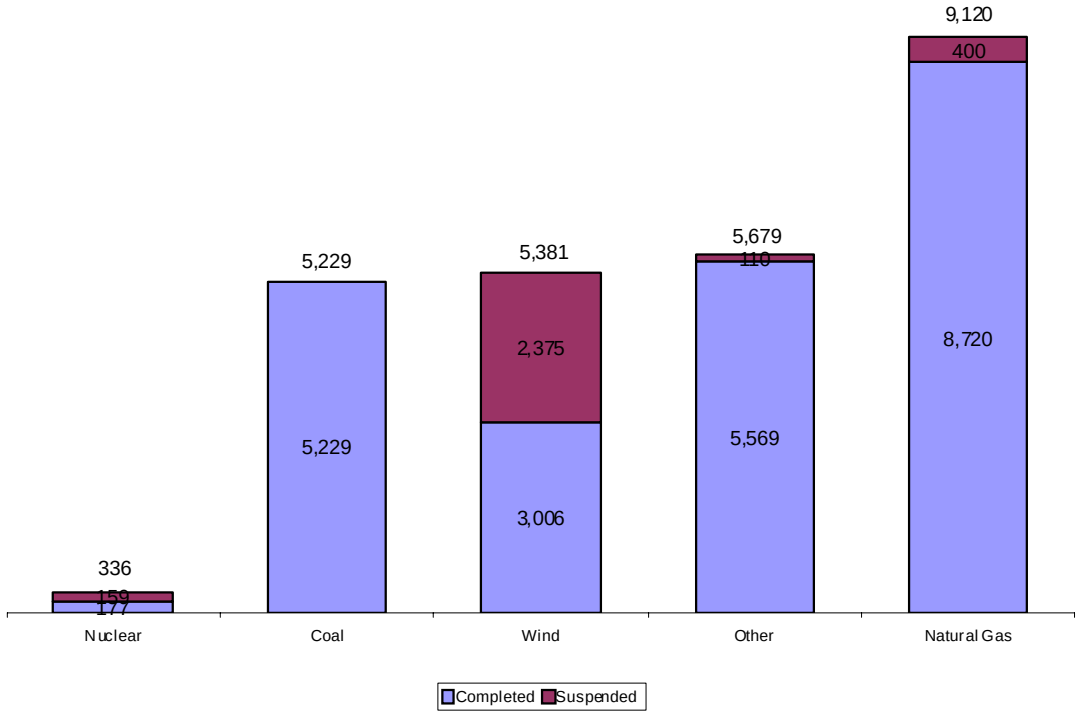


**Figure 4: Size of Completed and Suspended Interconnection Requests by Fuel Type**

Despite the high level of requests, there is a mismatch with the expected requirements for wind generation in the Midwest ISO footprint. Current renewable portfolio standards mandate approximately 12,600 MW of renewable generation. A 20% footprint wide mandate is estimated to represent 40,500 MW of wind capacity. With more than 55,000 MW in the queue, current wind interconnection requests exceed the mandated level by more than 300% and the 20% footprint requirement by nearly 40%. Preliminary estimates for the level of transmission infrastructure required to distribute this level of wind exceed $40 billion and would be expected to take 20 years from concept to completion.

We speculate that the apparent oversupply of requests is one key driver behind high attrition rates out of the queue. Based on historical processing patterns, it is expected that only 31% of these requests will reach interconnection agreement and enter construction, as shown in Figure 5. Another 8% will suspend once they reach interconnection agreement. However, based on the explosion of requests in the queue and the mismatch of supply to expected demand, it is logical to expect these completion rates to decrease further over time. The remaining 61% of projects

fail to complete the interconnection process, either by voluntarily withdrawing or failing to meet a milestone. A subset of those projects, representing 18% of requests submitted, exit the queue after some level of study work has been performed, leading to rework for subsequently queued requests which have been started based on a now incorrect set of assumptions. This rework leads to additional uncertainty and time delays for the subsequently queued projects.

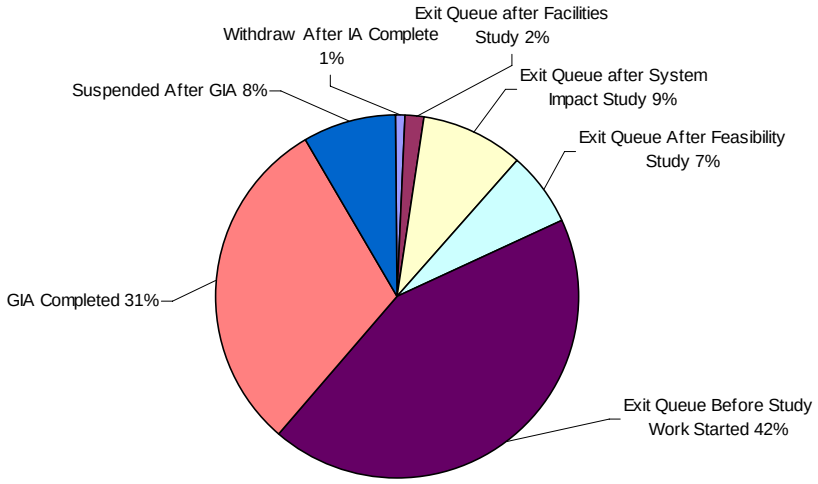


**Figure 5: Status of Midwest ISO Generator Interconnection Queue requests completed since 2001**

As one interim solution, in 2002, the Midwest ISO instituted procedures to group requests which are close in geographic and time proximity together in a single study. Although this process may lengthen a single step, such as the system impact study which is now more complex, it reduces overall timelines for the group in its entirety, with those timeline savings primarily accruing to those requests in the group that were later in the queue order. This process has not been shown, however, to reduce the level of restudy. This is at least in part due to the fact that the queue process analyzes generation supply requests independent of demand from load. In a recent example, shown in Figure 6, a group required 3 System Impact Restudies and 2 Facilities Restudies as the group dropped from 8 requests totaling 604 MW to 2 requests totaling 194 MW. In this specific example, it turned out that all the requests under consideration were submitted in response to a single 250 MW Request for Proposal. Based on experience to date, it is clear to the Midwest ISO that while grouping requests for studies is a part of the solution to the queue problem, on its own, it is not sufficient to fully address the issues at hand.

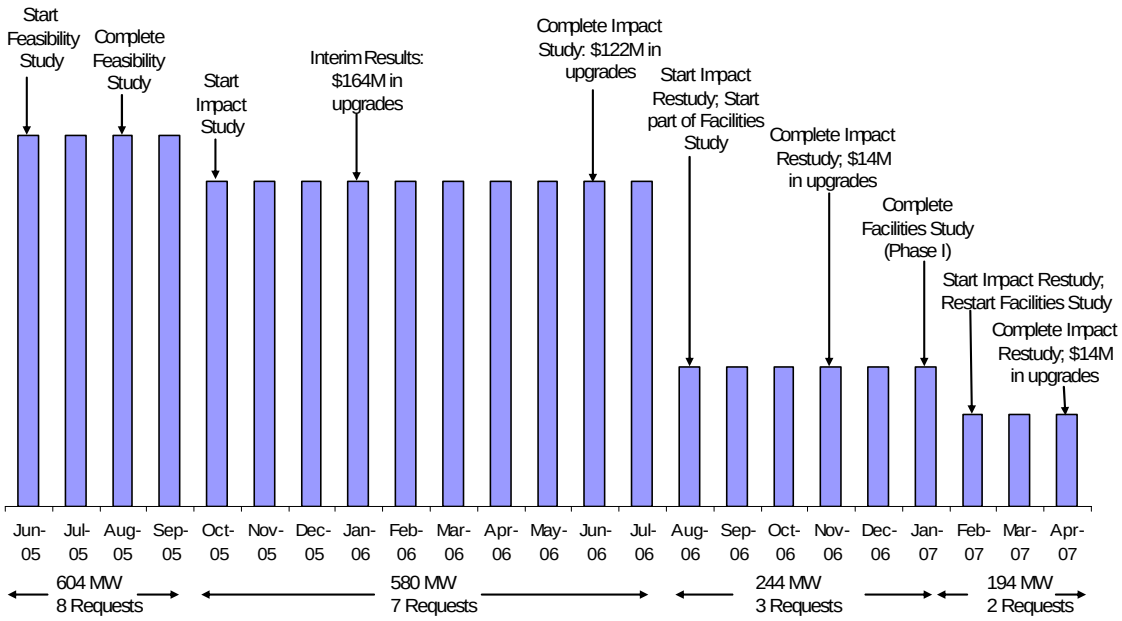


**Figure 6: Example Midwest ISO Group Study Result**

Earlier this year, the Midwest ISO commenced a solution identification process with its stakeholders. Solution development is ongoing, but preliminary indications are that the ultimate solution will require modifications to both the study process and the means by which transmission projects are identified to interconnect large amounts of remote generation, all the while remaining mindful of the potential tension between the federal and state jurisdictions around any potential outcomes.

The first effort, which commenced in late May, is exploring pre-identification of transmission projects, through the long-term expansion planning process, to address remotely located generation, such as wind. This idea is currently referred to as Regionally Planned Generator Interconnection Projects. In the Midwest ISO, there are a large number of wind requests in remote locations without significant existing transmission infrastructure. For example, in the Buffalo Ridge Area, there are nearly 22,000 MW of wind generation requests for interconnection by 2014, with only 1,900 MW of outlet capacity planned for the region by that same date, as shown in Figure 7.

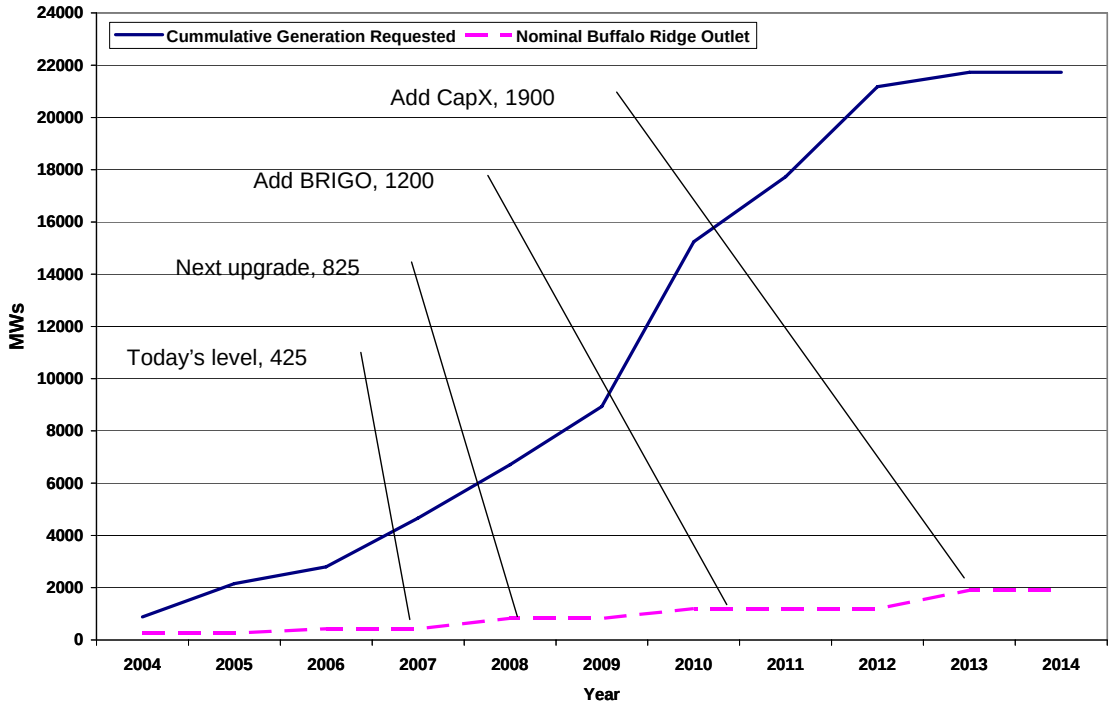


**Figure 7: Generator Interconnection Requests in the Buffalo Ridge Area as of November 30, 2007**

The transmission facilities required to integrate these resources may span over 100 miles and will likely require transmission facilities with a minimum voltage of 345kV, which is a high cost hurdle for any single generation developer to overcome. The grouping process can address a portion of the problem, by identifying shared projects whose costs can be allocated across multiple participants, but it does not address the question of what size project is required to meet the expected demand from a specific area, such as a high wind-potential region. Without addressing the question of demand for the energy, the result is at best excessive levels of rework, which leads to uncertainty and time delay as projects continue to drop out of the queue. At worst, the result is increased overall transmission cost driven by incremental build and conflict between regulatory jurisdictions.

Other locations, such as ERCOT and CAISO are exploring similar notions within their own regions. In the Midwest ISO, the solution is complicated by the fact that there are fifteen states potentially sharing the costs, and there is not a region-wide consensus around renewable energy policy. Moving forward, the Midwest ISO will conduct outreach to our member states through

the Organization of MISO States (OMS) to attempt to find solutions to this problem. We will also continue to work with our broader stakeholder group to identify further details of how these projects could be identified and subscribed to by generation developers.

Secondly, a workgroup consisting of a broad range of stakeholders, including generation developers, transmission owners, load serving entities and state regulatory staff, has been working since late September to identify solutions to reduce time and increase certainty through the generator interconnection process. Although the flexibility provided in the current queue process can provide significant benefit to the early movers in the queue, subsequently queued requests are negatively impacted as the number of study parameter uncertainties increase dramatically. To those trying to achieve a commercial goal, the uncertainty is, as much as the length of the process, a barrier to success.

Proposals being evaluated include a first-finished-first-out, or milestone based, queue approach, which would allow projects to proceed based on readiness, rather than solely on queue order. This is ultimately a solution which looks for alternate ways to prioritize study efforts, without unduly penalizing those projects that may wish to pause or move more slowly through the process. As part of the potential solution set, discussion is ongoing about the potential positive and negative effects of increasing financial, data and other requirements to enter the queue, proceed through the process, and ultimately suspend. Changes to any of those aspects could result in reduced uncertainty for queue participants, but must be balanced with the need to maintain open access and reduce negative or other unintended consequences.

The Midwest ISO will continue to work on addressing these ideas with our stakeholders in the coming months. Furthermore, we expect to bring the outcome of these discussions to the Federal Energy Regulatory Commission in the first half of 2008 through a tariff filing.

Thank you for the opportunity to address you with respect to this critical topic.