

PJM New Services Queue Analysis for Interconnection Process Reform Task Force

August 4, 2021



At Current Rates PJM & TOs Will Need ~5 Years to Clear Volume of Projects Already in Queue (up to AG2)

- Time to process the existing queue (up to AG2)
 - In 2020, ~300 projects made it through Facilities Study Phase (100 reports, 200 didn't require report)
 - By pausing early phase analysis, PJM & TOs may be able to process 400 – 500 per year (200 reports, 200 no report required)
 - 4 to 5 years to process existing queue (up to AG2)
 - Assumes PJM staff don't start implementing cluster process until all projects cleared from serial process
- Time to process queue through AI1
 - Between 7 to 10 years to process all projects through AI1 at rates of 400 – 500 per year

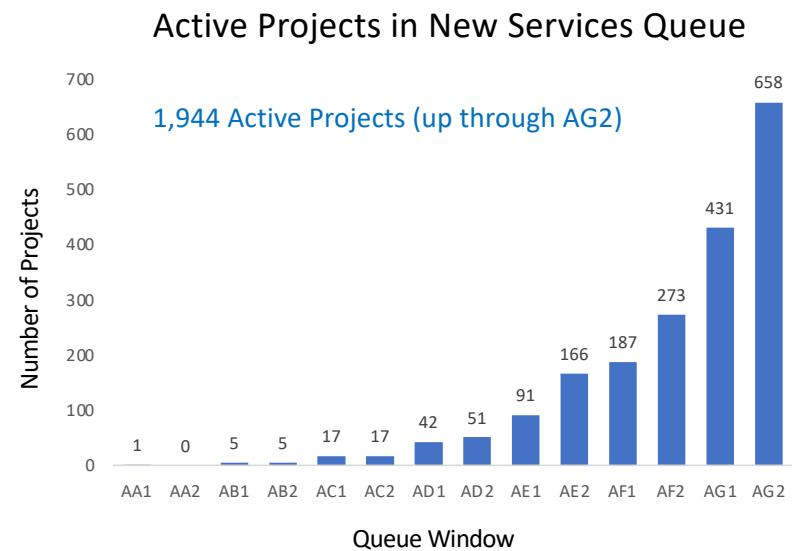
	Volume of Projects	Expected Timeline for Approval of New Cluster Interconnection Process
Active Projects in Queue through AG2 (3/31/21)	1,944	
Projects Added in AH1 (4/1 to 9/30/2021)	500 - 650	
Projects Added in AH2 (10/1/2021 – 3/31/2022)	500 - 650	Q1 2022: Tariff submitted to FERC
Projects Added in AI1 (4/1/2022 – 9/30/2022)	500 - 650	Q3 2022: Full implementation of new tariff
Approximate Total	3,400 – 3,900	



As of July 28, 2021

Process As Usual: Projects Will Face Extensive Construction Delays After Receiving Interconnection Agreement

- Construction timelines:
 - Between 55 – 80 projects interconnected per year in PJM
 - Dominion: 11 per year (2020 – 2025 average)
 - AEP: 9 per year (2020 – 2025 average)
 - ComEd: 6 per year (2020 – 2025 average)
 - Between 5 – 7 years to interconnect volume of projects in queue (up to AG2)*
 - PJM & TOs ramping up to processing 400 – 500 projects per year requires significant ramp for TOs as well to avoid construction delays
- Probable Impact:
 - Increased PPA defaults, higher REC price volatility, Developer, TO, and PJM staff frustration (mis-aligned expectations) resulting in legislative inquiries and pressure as the bottleneck becomes more publicized
- <https://www.reutersevents.com/renewables/solar-pv/solar-builders-call-faster-pjm-reforms-grid-queues-soar>



*assumes 80% withdrawal rate

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Interconnection Queue Delays: Findings and Discussion Points

1. Near term actions that Amazon has ID'd as being “tariff friendly”:

Thematically....Tighten the tolerances by spreading applications, reducing wait times, and limiting flexibility

- a. Monthly application caps: PJM and TOS have been adversely impacted by the bi-annual cadence of the intake window. From a process engineering perspective, smoothing the intake to a manageable level could benefit all. While some may feel this is a tariff change, PJM should try to attempt to justify this process change by arguing that:
 - a. the current volume increases and resulting delays and are extenuating circumstances, and call for emergency action, and that b. this process change wouldn't change the nature of the intake, which is first come, first served
- b. Shorten developer consideration windows: PJM provides reasonably generous participant time allocations (such as the 60 days developers are allowed to execute an ISA) and can shorten those time periods.
- c. Place limits on modifications & studies: Tariff does not limit number of material modification studies that can be requested or when. Interconnection customer not required to provide evidence that requested change likely doesn't impact later projects in queue.

2. Alternatively, ideas that other stakeholders have put forth:

- a. Moving projects currently in the Queue into the new process
- b. Providing developers an option between an expedited “First to Cause” process (bullet 1) OR the new Queue Cluster process
- c. Lifting projects from the current queue that reflect X criteria and placing them on hold until the new Cluster process
- d. Creating an interim “Ready Lane” for projects that make readiness commitments



To discuss these concepts in more detail, please contact:

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