



Deepak Ramlatchan

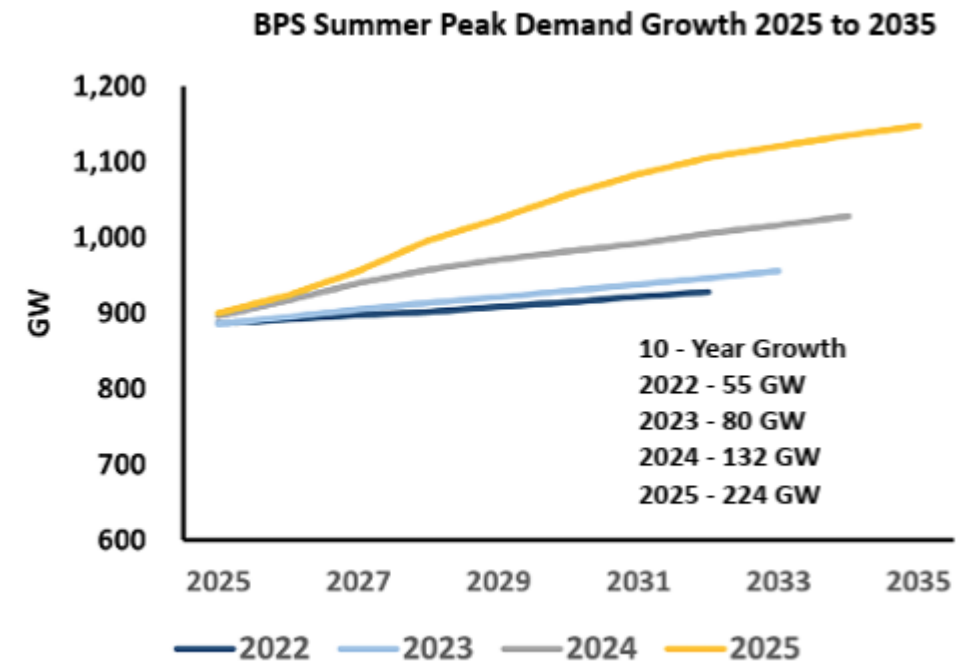
Deputy Director, Office of Electric Reliability

GENERATION INTERCONNECTION PROCESSES AND LARGE LOAD CONSIDERATIONS



Meeting Unprecedented Demand Growth

- The U.S. is currently experiencing unprecedented demand for electricity, due in large part to the rapid growth of data centers
- The Commission has focused on modernizing generator interconnection, transmission planning, and also ensuring transmission services can meet these new challenges
 - Order No. 2023 – Generator interconnection reform
 - Order No. 1920 – Transmission planning reform
 - June 18, 2026 Orders to Show Cause

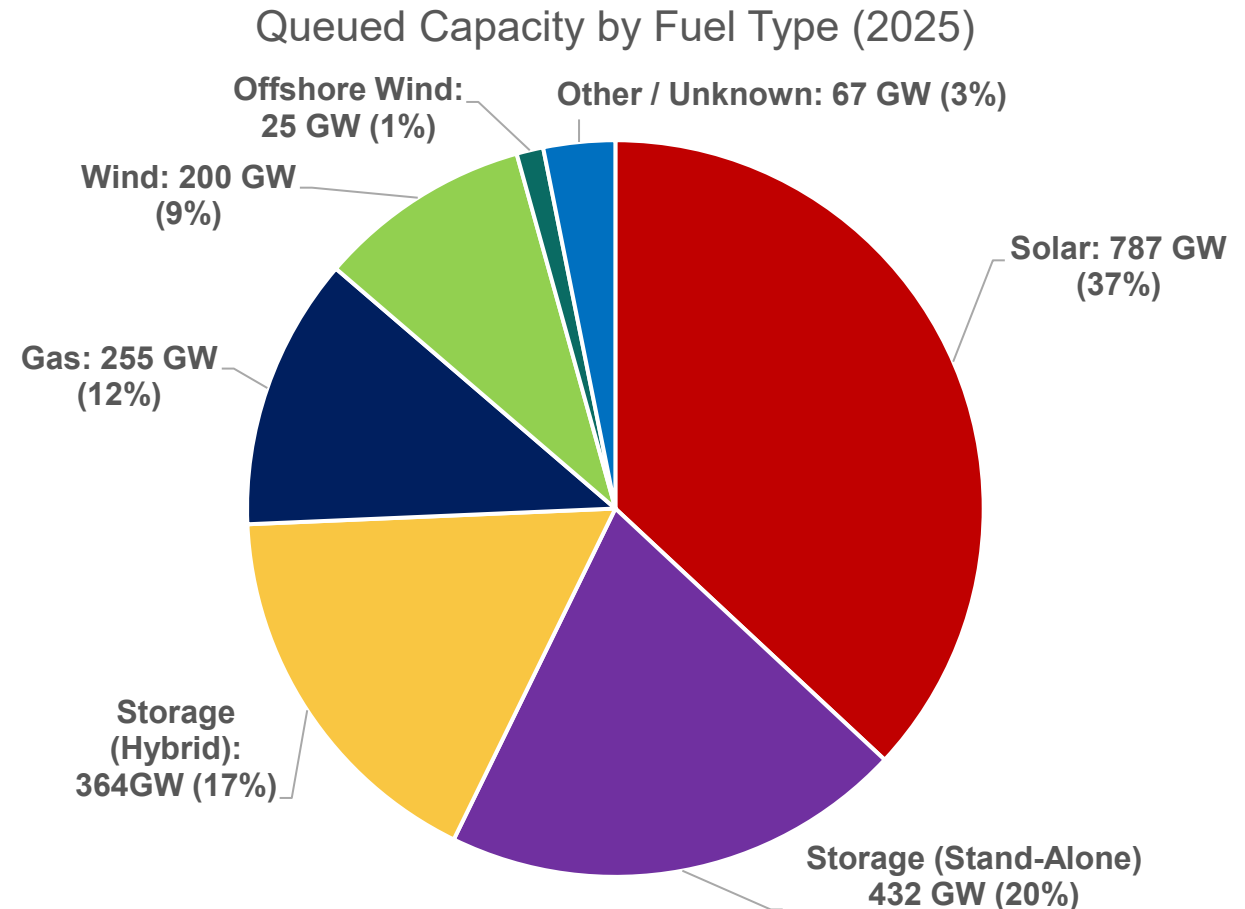


Source: NERC 2025 Long Term Reliability Assessment



Generation Interconnection Queue

- Over 2,100 GW of cumulative generation is currently in an interconnection queue
- Most installed capacity in the queue has a low accredited capacity (UCAP)



Source: FERC State of the Markets Report 2025



A Difficult Path to Power

- A large percentage of the queue is in jeopardy of not making its commercial operation date
 - Supply chain constraints (including labor)
 - Network Upgrade costs
 - Permits
 - Financing (e.g. loss of tax incentives)
- Historically, most generation has not survived the study process

Gas Turbine Backlog Crisis: 2026 Orders Double As Buyers Face 5-Year Wait Times



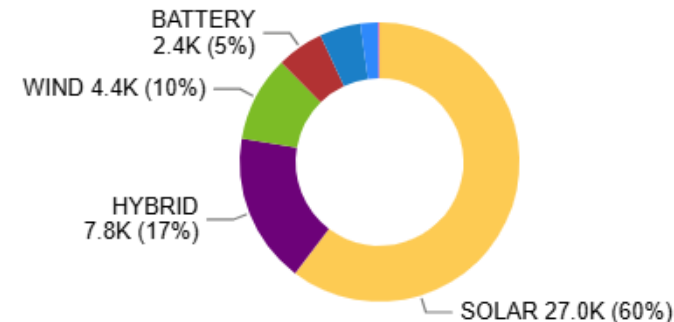
Source: [SustainablePowerNews.com](https://sustainablepowernews.com) | Published: March 26, 2026

294

CP Nodes Delayed

44,781

MW Delayed



Source: MISO Interconnection Dashboard

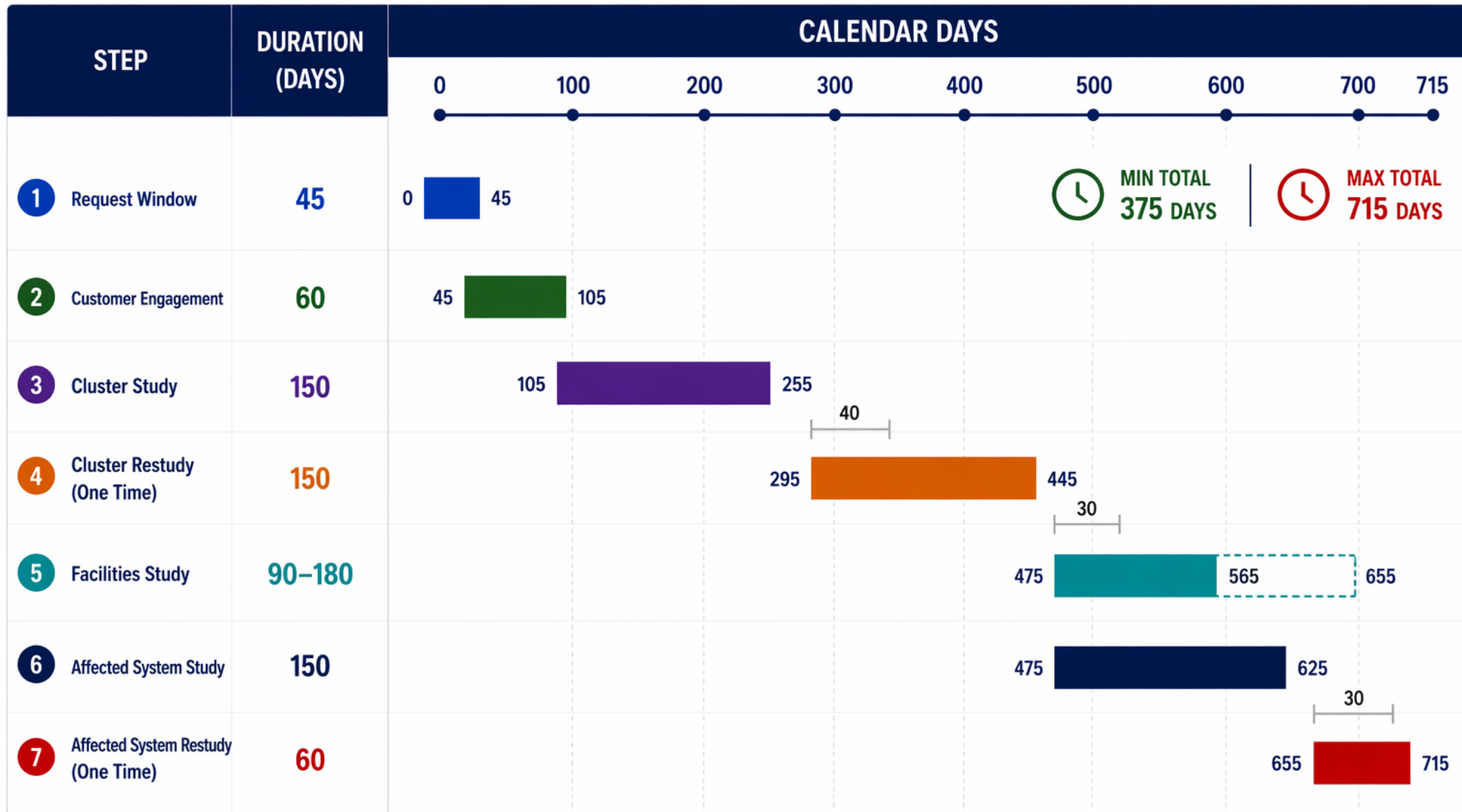


Facilitating Generator Interconnection

- Transmission Providers study and approve requests to connect generators to the transmission system
- Two-stage study process:
 - System Impact Study: Initial technical analysis
 - Facilities Study: Final, detailed engineering design study
- Order No. 2023 - Improvements to Generator Interconnection Procedures and Agreements
 - Introduction of cluster-based process to replace serial studies



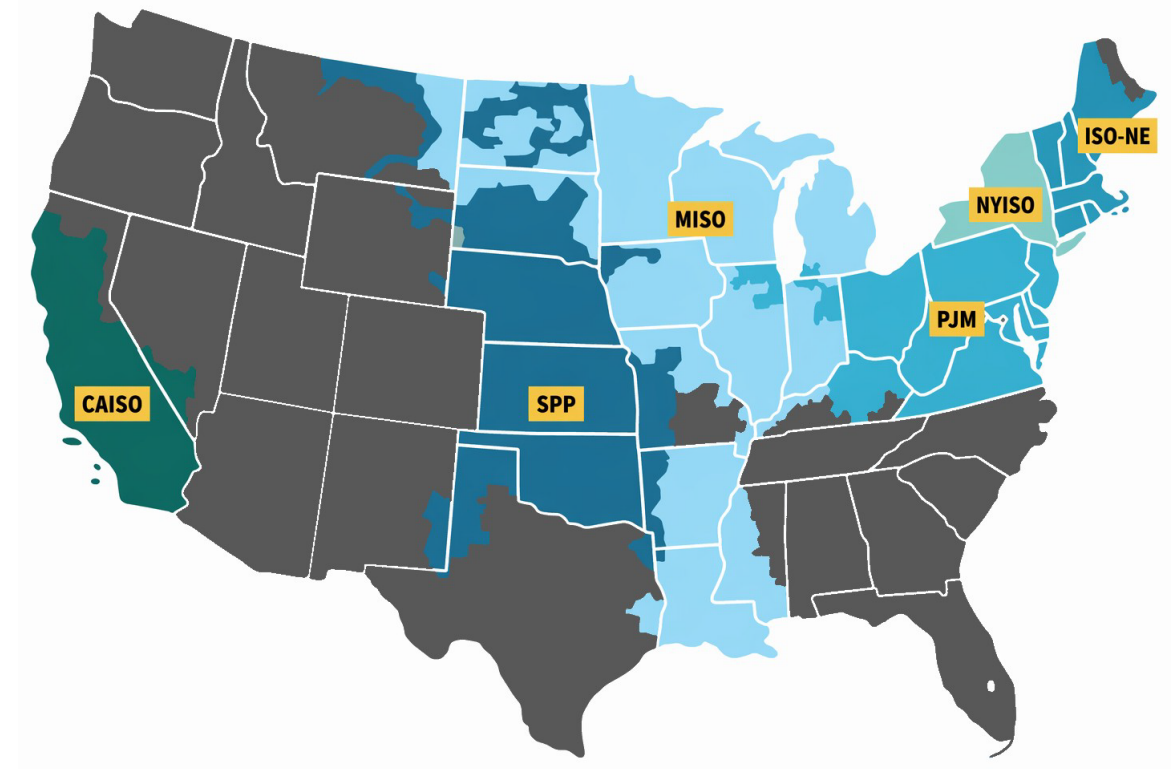
Generator Interconnection Process Timeline





Region-Specific Interconnection Processes

- RTO/ISOs have unique processes
 - Covers majority of load in the U.S.
- May have expedited process for “shovel ready” resources
- Non-RTO regions may have smaller deviations from *pro forma*





Major Considerations for New Generation

- Generators are responsible for the up-front costs of all transmission system improvements needed to connect their resource
- Power flow models must be accurate and compatible with the study process
- Processes are resource-neutral by statute



An Alternative Path to Power

- Generators can transfer capacity rights from other generators (either retiring or deactivated) to avoid studies and come online quickly
- FERC is using its authority to help nuclear power plants work through the interconnection process and return to commercial operation

FERC approves NextEra waiver needed for Duane Arnold nuclear plant restart



Attribution: Utility Dive (utilitydive.com)

NRC and FERC boosts for Crane Clean Energy Center project



Attribution: World Nuclear News (world-nuclear-news.org)

FERC Grants Palisades Extra Time to Get Online



Attribution: RTO Insider (rtoinsider.com)



June 18, 2026 Large Load Orders to Show Cause

- Built on prior Commission proceedings involving large and co-located loads
- Preliminarily found that RTO and ISO tariffs do not adequately address the challenges associated with the integration of large and co-located loads onto the transmission system
- Identified five specific areas of reform that may be needed



Five Areas of Reform

- Transmission service application and study process, including consideration of alternative transmission technologies
- Preventing cost shifting and requiring transparency
- Co-location arrangements and behind the meter generation
- New transmission services for flexible large loads
- Generating facilities serving electrically proximate large loads and large co-located loads



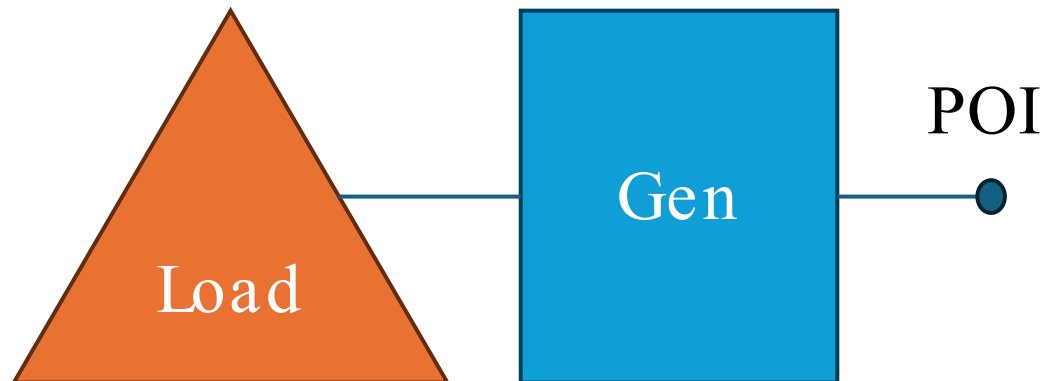
Transmission Service Study Process

- Application process to mitigate speculative requests
- New study process to evaluate transmission service requests that consider unique operational characteristics and reliability risks of large/flexible loads
- Ongoing operational requirements to ensure reliability
 - Information – provide RTO with additional load forecast, telemetry data, etc.
 - Equipment (PMUs) – enable RTO to monitor impact of large load
 - Remote Disconnect – enable RTO to disconnect large loads when necessary
 - Ramp Rate – ensure load ramping does not exceed certain MW/min
 - Ride Through – ensure that load remains connected during transmission disturbances



Co-Location Arrangements

- Generation facilities in a co-location arrangement can:
 - Request service below maximum facility output
 - Use existing procedures to accelerate interconnection requests
 - Make use of **surplus** and **provisional** interconnection services





New Transmission Services

- Must provide services to flexible large loads and co-located loads that may be willing and able to limit their use of the transmission system under certain conditions
- Three new services:
 - Interim non-firm network transmission service (i.e., interim NITS)
 - Firm Contract Demand
 - Non-Firm Contract Demand
- Customers must have necessary control technology or protection systems to limit unapproved withdrawals



Generating Facilities Serving Electrically Proximate Large Loads and Large Co-Located Loads

- The show cause orders contemplate a faster interconnection service where load and generation are physically close and may have a more localized impact on the transmission system
- Definition of electrical proximity
- Co-location or service to “electrically proximate” large loads can increase speed to power and reduce network upgrade costs



Status of Large Load Show Cause Orders

- SCOs directed RTOs/ISOs and Transmission Owners to:
 - Respond within 60 days or
 - Request an abeyance within 45 days, pausing the show cause proceeding to allow time to address the Commission's concerns through FPA section 205 filings (the normal tariff filing process)
- All six show-cause proceedings are in full abeyance, with the new deadline reset to November 16, 2026 (November 20 for SPP)
- RTOs/ISOs and Transmission Owners have begun submitting section 205 filings