

Planning Center (Competitive Planner, Gen Model, Queue Point, Queue Scope, and TO Planner) Roadmap

As of April 17, 2023

www.pjm.com | Public PJM © 2023



 Added roadmaps for Gen Model, Queue Point, Queue Scope, and TO Planner



Impact Details

Product - Action Required	Deadline	Who May Be Affected			
Gen Model enhancements - review enhancements details	Q2 2023	All Gen Model users			
Queue Point enhancements – review enhancements details	Q3 2023	All Queue Point users			
TO Planner supplemental projects – review roadmap details	Q3 2023	All users who plan to submit supplemental projects			
Queue Scope geospatial – review roadmap details	Q4 2023	All Queue Scope users			









2023 Planning Center Roadmap Roadmap

	2023											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Competitive Planner												
Gen Model					Enhanceme release	nts						
Queue Point							Enhancem release	ents				
Queue Scope											Geospatial go-live	
TO Planner									Supplementa			



Gen Model Background

- The Gen Model module lets generation owners(GOs) upload the required data for NERC's MOD-032-1 standard. This standard establishes consistent modeling data requirements and reporting procedures needed to develop planning horizon models. These models are necessary to support reliability analyses of the transmission system.
- Every year, PJM provides GOs a time window to submit data through Gen Model Tool. The GO data submittal window opens on May 1 and is open for 45 calendar days.
- Generation Owners participating in PJM's wholesale market and meet either criteria below must submit data to PJM:
 - Generators with Capacity in PJM markets
 - Generators with cumulative generation of 20 MW or greater capacity
 - NERC MOD-032 applicable generators



Gen Model Enhancements Details

Gen Model – Data Integrity: Data validation and update on existing EIA Plant Code and Generator Code associated with the plants and generators.

On Gen Model General Information page, create EIA Plant Code and EIA Generator Code controls (pre-populate the information based on data validation). Disable the edit capability for users with the intent to use the EIA information for all plants/generators as the key information.



Queue Point Enhancements Background

- The PJM New Services Queue is currently undergoing a transition to a new process, as conditionally approved by FERC in November 2022 and set forth in FERC Docket No. ER22-2110.
- As of the Transition Date, valid AE1-AG1 projects, other than Upgrade Requests, that have not been tendered, or have not executed a final ISA or WMPA will have to satisfy the eligibility and readiness requirements specified in the Tariff.
- Enhancements are being made to Queue Point to align with the rules for the transition to the proposed new process set forth in the PJM Tariff.



Queue Point Enhancements Details

To align with the rules for the transition to the proposed new process set forth in the PJM Tariff.

To facilitate the collection of readiness requirements at the Transition Date.

To collect New Service Requests submitted after the Transition Date in accordance with the new process. This includes the Application and Studies Agreement, Surplus Interconnection Service Study Agreement, and Upgrade Application and Studies Agreement.





POINT OF INTERCONNECTION SCREENING TOOL

Description

- The screening tool enables users to evaluate placement of future generators even before formally entering the PJM queue.
- The tool screens potential points of interconnection (POI)
 on the PJM system by assessing grid impacts based on the
 amount of MW injection or withdrawal at a given POI.

Use Cases

- Preliminary check on transmission system headroom at a selected POI
- High-level grid congestion screening across the PJM footprint
- Severity of facility overloads at a given POI





Phase 1 – Tabular User Interface

- This phase of the project included database & application development
- Go-live in production completed on Dec. 5, 2022
- Tool is hosted on PJM Tools page

Phase 2 – Geospatial User Interface

- Application development in 2Q and 3Q 2023, go-live in production in 4Q 2023
- Will leverage similar capabilities and feel of the existing PJM system map
- Provides users with visual cueing for grid congestion



Purpose

• Enable Transmission Owners to submit non-competitive baseline projects and supplemental projects.

Features

- Integrate the lifecycle of projects between the portal, internal analysis, and presentations at Sub-regional Regional Transmission Expansion Plan (SRRTEP) and Transmission Expansion Advisory Committee (TEAC) meetings as well as tracking progress.
- Allow elements to transition to Board presentations for approval, board whitepaper and RTEP book development.



Additional Features/Benefits

- Eliminate current project submission through emails, manual entry and tracking efforts, human errors with manual tracking and input.
- Automate tracking of project information, models and study status.
- Provide real-time status of projects to Transmission Owners and PJM users.



UAT and training with TOs for non-competitive baseline projects – Q4 2022

Deployed functionality to submit non-competitive baseline projects in Train and Production environments – Dec 2022

Deploy functionality to submit supplemental projects in Train and Production environments – Q3 2023

Recorded Demo is available to review:



Contact

Facilitator: Todd Keech, <u>Todd.Keech@pjm.com</u>

Secretary: Dave Miscavage, <u>Dave.Miscavage@pjm.com</u>

Presenter: Bhavana Gagrani, Bhavana.Gagrani@pjm.com

SME:

Gen Model Support, mod-032@pjm.com

Gen Model Enhancements – Ashwini Bhat, Ashwini.Bhat@pjm.com

Queue Point Support, ipadmin@pjm.com

Queue Point Enhancements — Josh Stephenson, <u>Joshua.Stephenson@pjm.com</u>

Queue Scope - Leo Amoling, Leo.Amoling@pjm.com

TO Planner - Wenzheng Qiu, Wenzheng.Qiu@pjm.com

Planning Center Roadmap

Member Hotline

(610) 666 - 8980

(866) 400 - 8980

custsvc@pjm.com





Product Details

www.pjm.com | Public PJM © 2023



Competitive Planner Background

<u>Competitive Planner</u> supports PJM's implementation of FERC Order 1000. The tool affords non-incumbent transmission developers an opportunity to participate in the regional planning and expansion of the PJM bulk electric system using a tool that simplifies and automates the submission process.

Key Product Features

- Form based which in turn ensures more accurate data
- Improved customer service for submitting entities
- Eliminate manual, time consuming and error prone process
- Secure information flow from the end user to PJM



DESCRIPTION: The screening tool enables users to evaluate placement of future generators even before formally entering the PJM queue. The tool screens potential points of interconnection (POI) on the PJM system by assessing grid impacts based on the amount of MW injection or withdrawal at a given POI.

Tool Functionality

Capabilities

- Provides the ability to assess all types of generation (including batteries, pumped hydro, MTX)
- Leverages stored results from PJM generator deliverability analysis
- Provides facility loading impacts and headroom (MW) by POI

- 6000+ POI buses available to users within the PJM footprint
- Users have the option to run the analysis with a Transmission Planning case or Queue Study case

Limitations

- No short circuit, voltage or stability analysis. Thermal overloads are the typical constraint.
- Currently limited to Summer Peak analysis. Future plans to include Light Load analysis.



Queue Point Background

Queue Point simplifies the way interconnection requests are submitted. It can be used to submit new requests as well as make changes to existing requests.

Key Product Features

Queue Point replaces the Datasheets application



Gen Model Background

Gen Model allows generation owners to upload required data for NERC's MOD-032-1 standard.

Key Product Features

- This standard establishes consistent modeling data requirements and reporting procedures needed to develop planning horizon models
- These models are necessary to support reliability analyses of the transmission system



Additional Background

- Queue Point introduced for AC2 queue
 - Initial release supported Attachment N
 - Second release added all other forms
 - Replaced various disparate legacy systems
- Scalable system with enhanced workflow
 - Leverages PJM Tools framework

