

Planning Update

Susan McGill Sr. Manager, Policy Initiatives

Independent State Agencies Committee June 9, 2025



TEAC Agenda

- Interregional Planning Update
- Generator Deactivation Notification Update
- Market Efficiency Update
- Informational update Transource Project 9A
- Reliability Update

Meeting materials



Interregional Update

- EICP
- IPSAC PJM / MISO
 - Next meeting: June 25, 2025
- IPSAC PJM / NYISO / ISO-NE
- Other

Jpjm

Generator Deactivations (2020-2025)





Deactivation Status

Unit(s)	MW	Transmission Zone	Requested Deactivation Date	PJM Reliability Status	
Laurel Mountain Battery	32	APS	7/1/2025	Reliability analysis – 2025 Q2	
Rockport Unit 1	1380	AEP	12/31/2028	Reliability analysis – 2025 Q2	
Rockport Unit 2	1300	AEP	12/31/2028	Reliability analysis – 2025 Q2	
Willey Energy Storage	6	DEOK	9/1/2025	Reliability analysis – 2025 Q2	
Buchanan Unit 1	40	AEP	7/1/2025	Reliability analysis – 2025 Q2	
Buchanan Unit 2	40	AEP	7/1/2025	Reliability analysis – 2025 Q2	
Ocean County LF	9.1	JCPL	7/1/2025	Reliability analysis – 2025 Q2	
Forked River 1	34	JCPL	6/1/2027	Reliability analysis – 2025 Q2	
Forked River 2	31	JCPL	6/1/2026	Reliability analysis – 2025 Q2	
Rockford CT11	179	COMED	6/1/2026		
Rockford CT12	178	COMED	6/1/2026	Note: At the June TEAC, PJM	
Rockford CT21	180	COMED	6/1/2027	announced no reliability	
Cumberland CT 1	79	AE	6/1/2027	Violations were identified with	
Sherman Avenue CT1	79	AE	6/1/2027	any of these deactivations.	



Congestion Driver	Area	Туре	Comment
Museville-Smith Mountain 138 kV	AEP	Line	Historical congestion. Congestion increases driven by increased load forecast.
West Point-Lanexa 115 kV	DOM	Line	Congestion driven by the renewable buildup.
Garrett-Garrett Tap 115 kV	PN-APS	Line	Congestion driven by the renewable buildup.



Transource Project 9A

- Summary
 - PJM provided an update at the May 6, 2025 TEAC indicating the challenges with building the eastern portion of Project 9A (9A-East).
 - Multiple RTEP projects approved after Project 9A was suspended in 2021 and some occupy the same physical location or right-of-way as 9A-East.
 - Western portion of Project 9A exceeds 1.25 benefit-to-cost ratio and continues to address market efficiency planning needs on AP South and related facilities.
- Next Steps
 - Recommendation to the PJM Board in July to modify Project 9A to remove the eastern portion.





Transource Project 9A

RTEP projects have been approved and constructed since Project 9A was placed in suspended mode in 2021.

- Multiple occupy the same physical location or right-of-way as 9A-East.
- 9A-East's Furnace Run-Conastone 230 kV lines are on the same rightsof-way that are now being utilized for the Chanceford-Conastone area 500 kV (2022 Window 3 Approved Projects).
- Chanceford 500 kV station ties into Peach Bottom-TMI, located in close proximity, and serves similar objectives to 9A-East's Furnace Run 500 kV station but with 500 kV transmission.





PJM planning for a 60 day competitive window, but open to feedback from stakeholders.



2025 RTEP Window 1 Scenarios

- 5 Year (2030) Analysis
 - Scenario 1 (2030 Base case): Existing generation, GIA/ISA generation, Suspended ISA generation, Fast Lane Queue, CVOW and Chesterfield plants

 Scenario 2: 2030 Base case + TC1 queue + Q1 deactivations + withdrawn queues + without NJ/DE OSW

- 7 Year (2032) Analysis
 - Scenario 3 (2032 Base case): Existing generation, GIA/ISA generation, Suspended ISA generation, Fast Lane Queue, TC1 queue, TC2 queue (with RRI), 7500MW NJ OSW, Q1 deactivations, withdrawn queues
 - Scenario 4: 2032 Base case + Removing NJ/DE OSW
 - Scenario 5: 2032 Base case + Policy deactivations (may be combined with Scenario 6)
 - Scenario 6: 2032 base case with Battery dispatched

Scenarios

	Actionable	Shared	Internal Only
Scenario 1	All	Х	
Scenario 3	Long lead only	Х	
Scenario 4	Long lead only	Х	
Scenario 5	Long lead only		Х
Scenario 6	Long lead only		Х

Actionable: PJM will seek solutions to address reliability violations identified in the case. Long-lead items may acted upon after discussion with stakeholders.

Shared: Cases will be posted an available to transmission developers to their solutions.

Internal Only: No action will be taken to address reliability violations, but will be used to help right size proposed solutions.



2025 RTEP Window 1 Addressing Generation/Load Imbalances

- Analysis tools cannot identify transmission system violations when there is insufficient generation to meet the load.
- Potential methods to address
 - Add placeholder generation in locations of deficit
 - Use the interconnection queues



2025 RTEP Window 1 Usage of the Interconnection Queue

- PJM can use the interconnection queue to balance the case when there is a deficit of generation.
 - Without a balance of load and generation, the analysis cases won't solve
 - Historically PJM has only used a handful of projects that reached the Facilities Study stage
- With the current projected deficits, PJM is looking to use the interconnection queue



Usage of the Interconnection Queue (2030 Cases)





Usage of the Interconnection Queue (2032 Cases)





2025 RTEP Window 1 Preliminary Reliability Needs (2030)

- All previously planned backbone transmission enhancements continue to perform well up to and including 2030.
- The forecasted queued generation (up to Fast Lane + CVOW and Chesterfield) do not drive major regional transfer needs;
 - Generation developing in these areas efficiently serves the zonal load needs
- PPL which has relatively small amount of new generation added, will require additional transfer capability (enhance the import capability into PPL).
 - The details on how the western generation may materialize will have minimal impact on this need given the level of generation forecasted in the west.
- The 2025 RTEP provides guidance to not only how the load reliability needs will be met, but also to where generation could materialize most efficiently (which is the case for Fast Lane projects requiring minimal transmission upgrades)



2025 RTEP Window 1 Preliminary Reliability Needs (2032)

- All previously planned backbone transmission enhancements continue to perform well up to and including 2032.
- There could be need to reinforce the NW AEP 765 kV transfer path
 - This need will depend on how generation in ComEd and NW PJM materializes.
- With the strong generation interconnection interest in Southern Dominion, and to enable this generation to serve load (mainly in Summer Months);
 - There will be a need to reinforce the Dominion 500kV backbone in Southern Dominion.
- Earlier approved needs in northern ATSI may need further review (right sizing)
- The 2032 results affirm the need to enhance PPL/MAAC West-East transfer path.
- PJM will continue to assess the needs above and will provide more information part of the 2025 W1 RTEP Problem Statement.



2025 RTEP Window 1 Next Steps

- PJM Will provide a more comprehensive summary of all needs and results when the window opens
- 2025 RTEP W1 will focus on addressing near term (5 year needs);
 - 2032 (longer-term) results will only be used to right-size needs already showing up in 2030.
 - Special cases may arise if longer term needs are confirmed and require long lead development.



2024 RTEP Window 1 Project Changes

- 2024 RTEP Window 1 changes:
 - New scope (b4000.14) additional \$3.0M
 - Updated scope (b4000.6) no change in total cost
- TPL-001-5.1 P5 contingencies new baselines
 - Modifications to 76 substations across four Transmission Owners for a total cost of \$3.35M





Presenter: Susan McGill <u>Susan.McGill@pjm.com</u>

June 2025 Planning Update

Member Hotline (610) 666 – 8980 (866) 400 – 8980 custsvc@pjm.com

