



# Offshore Transmission Study Group

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Offshore Transmission Study Group Recap

- Began meeting in October 2020 as an independent effort between PJM and interested state agencies
- Goal is to analyze and identify regional transmission solutions to accommodate the coastal states' offshore wind goals
- PJM collaboration with states to determine initial scenarios to model
  - Five group sessions in 2020
  - Additional one-on-one meetings between PJM and state staff



### **Purpose of Scenario Studies**

- Assess the impact to the PJM transmission system
- Identify system upgrades on a regional basis
- Estimate costs and timelines
- Information:
  - Regional transmission solutions and associated costs including any overlap between state boundaries
  - Demonstrate how PJM's State Agreement Approach can be used as a complementary process to the Generator Interconnection Process



## **OTSG Scenarios**

Scenario #1	Scenarios #2 – 5
Timeline: 2027	Timeline: 2035

- OSW injection of 9,020 MW
- Announced generator deactivations
- Incorporate state policy goals through 2027\*

- OSW injections range from 17,620 19,620 MW
- Scenarios have increased locational variability
- Includes both announced generator deactivations and possible deactivations
- Incorporate state policy goals through 2035\*

#### 2025 RTEP Base Case

#### 2028 RTEP Base Case

\*State policy goals account for utility-scale and distributed level targets as outlined in relevant states' renewable portfolio standards.



Modeling

- Summer, Winter, Light Load 2025 and 2028 RTEP base cases
  - Analysis will extrapolate 2025 results to 2027 and 2028 results to 2035
- Additional renewable resources and expected deactivations selected by PJM based on review of state clean energy requirements, direct feedback from the coastal states, review of the PJM Interconnection Queue, and information in the 2020 PJM Load Forecast Report

		Offshore Wind*			Deactivations*			Utility-Scale Solar / Onshore Wind / Storage*	Distributed Solar / EV / EE**
Scenario	Base Case	DE & MD	NC & VA	NJ	DE & MD	NC & VA	NJ	All States	All States
#1	2025	768 MW	5,200 MW	3,052 MW	Announced	Announced	Announced	State RPS For 2027	2020 PJM Load Forecast Report for 2027
#2-5	2028	1,568 MW	10,400 MW	5,648 MW - 7,648 MW	Announced	Announced & 1,042 MW Unannounced	Announced & 459 MW Unannounced	State RPS For 2035	2020 PJM Load Forecast Report for 2035

\* Modeled as multiple discrete generators; scenarios #2-5 vary based on selected offshore wind locations and amounts

\*\* Modelled as scalars to PJM zonal loads



Work Effort and Next Steps

- PJM and the states identified *five* scenarios to model as part of the study's initial analysis
- Based on the initial study findings and feedback from the States, PJM may study additional scenarios (up to ten total scenarios).
- PJM will present results of the scenario studies when completed, which is anticipated in the second half of 2021.





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**Revision History** 

• V1 – 03/30/2021 – Original slides posted