

Multi-TO Project-Outage Coordination Update (MTOPOC)

Rob Dropkin

Transmission Operations

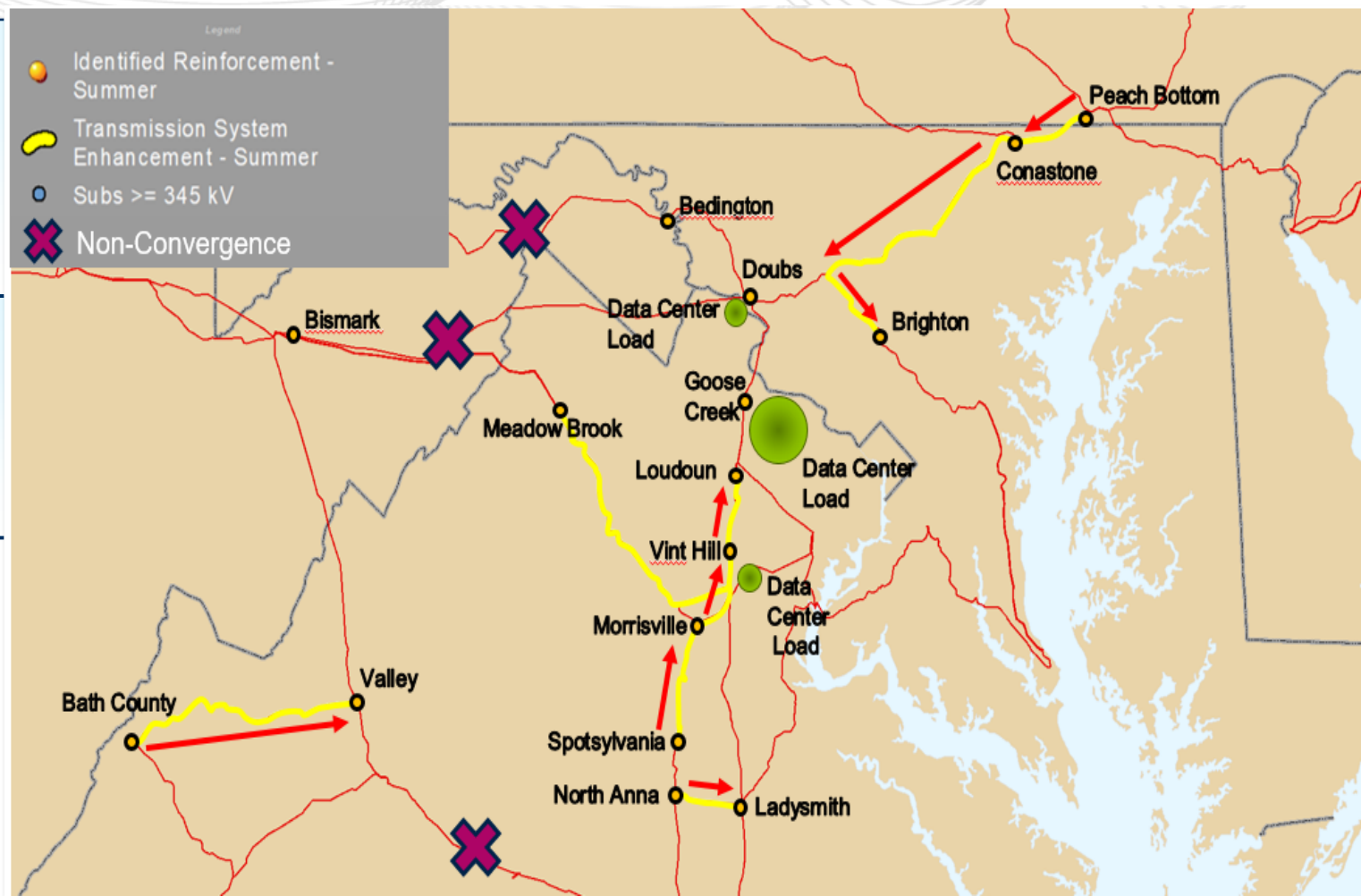
June 3, 2025

PJM has unprecedented data center load growth:

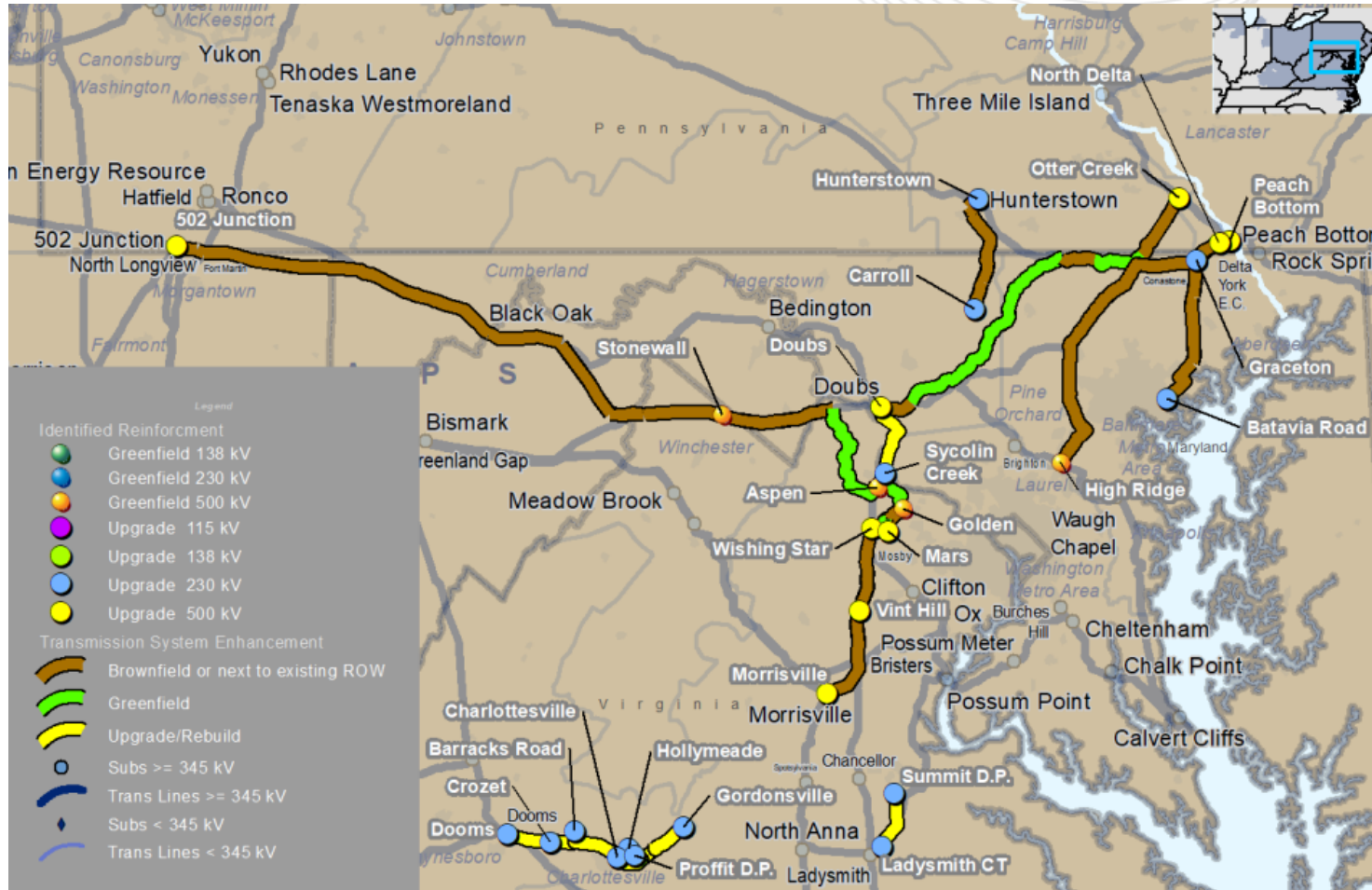
~7,500 MW currently forecasted
by 2027–28 in Dominion (Northern Virginia)
and APS (Doubs).

11,100 MW deactivation announced
~ 5,300 MW of retirements occurred
after the 2022 RTEP case was created.

- The vast majority of the new generation with signed ISAs has been solar.
Solar has low availability during the winter period.
- Replacement generation is coming from the region to the east of Peach Bottom as well as west of Doubs to meet projected load growth.

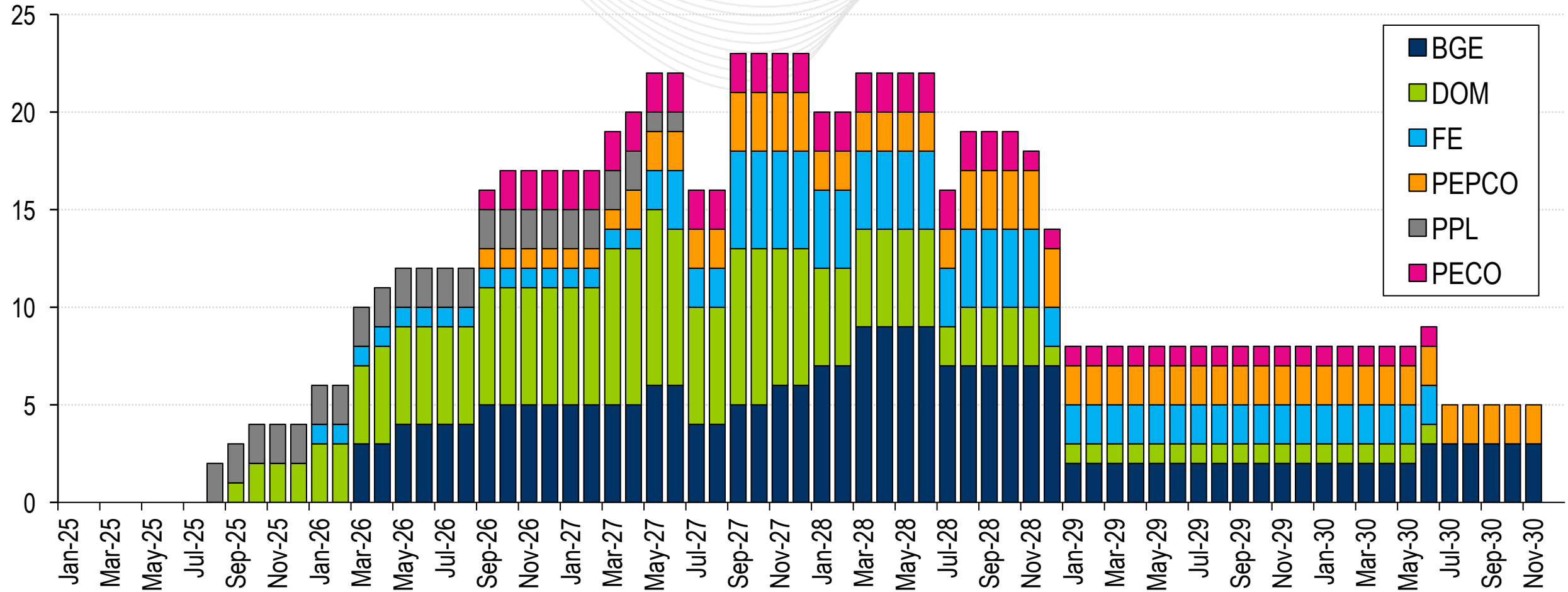


Overview of Selected Proposals

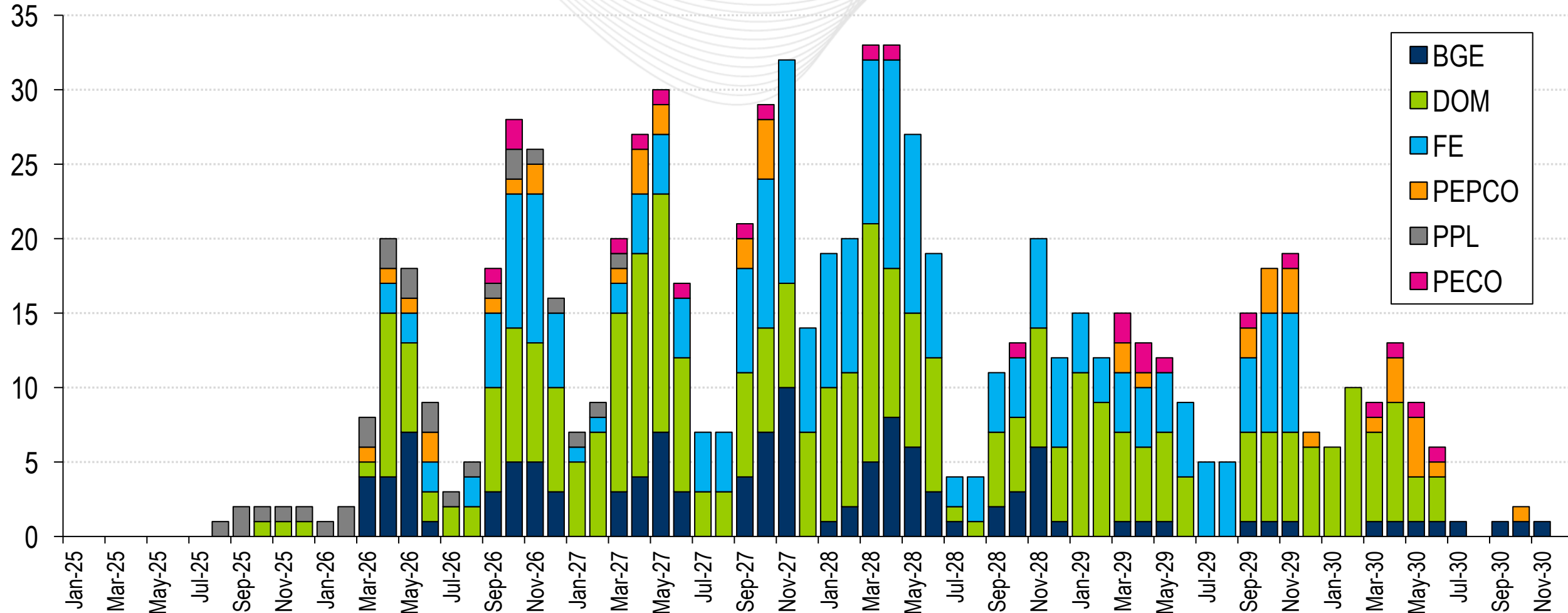


Cluster	Overview	Proposal Cost (\$M)
East	<ul style="list-style-type: none"> ▪ New and upgrade 500 kV lines ▪ New and expanded 500 kV stations 	\$1,443.12
West	<ul style="list-style-type: none"> ▪ New 500 kV line ▪ New 500 kV station ▪ New voltage support devices 	\$940.85
Northern VA	<ul style="list-style-type: none"> ▪ New 500 kV and 230 kV lines ▪ New 500 kV station 	\$1,418.3
South	<ul style="list-style-type: none"> ▪ New and upgraded 500 kV and 230 kV lines ▪ New voltage support devices 	\$1,265.85
Local	Station reconfiguration	\$11.59
Short Circuit	500 kV and 230 KV Breaker replacement	\$63.27
Total		\$5,142.98

Multi-TO Project-Outage Coordination Projects



Multi-TO Project-Outage Coordination – Outages



Extended Study Timeframe & Tools

6 months to 2 years

PSS/E

INPUTS

- Model On Demand RTEP cases from PJM planning
Available cases are seasonal (Winter/Summer), with loads then scaled to represent the applicable month and LAS forecast
- Modify the model and update contingency files
- IDEVS as needed

- Working through results and coordination with Transmission Owners for Spring 2026 – Winter 2026/2027 to mitigate major conflicts
 - Goal is to align major EHV transmission outages in this study timeframe
 - Transmission Owners have shared priorities for their own outages and projects to assist PJM engineers with their analysis
 - PJM is incorporating additional variables to develop priorities from a system wide perspective
- Sharepoint tool has been created for PJM and TOs to use as central hub for transmission outage tickets, project sequences, future equipment outages, and information on construction process as well as planning database in-service dates

- Increased internal communication and coordination between Transmission Operations and Generation Departments at PJM
 - Closely coordinating outage evaluations in order to respect reliability concerns and avoid having too many generation outages overlapping in certain areas
 - PJM may request some generation outages 1-3 seasons out be shifted for reliability concerns with transmission outages in affected area to help with schedule optimization
- Meetings with PJM and generation owners as needed for continued communication

- **Generation Outage Submission**

- Current rules specify at least 30-day notice for generation outages, PJM is requesting Generation Owners in the BGE, PEPCO, Dominion and surrounding areas to enter outages expected to occur in the next 2-3 years as early as possible.
 - NOTE: PJM may not be able to accommodate as many concurrent gen outages as we have in the past. Transmission outages related to system upgrades may be given priority.

- **Increased Risk Acceptance and Congestion**

- Due to the high volume of reliability upgrades and associated outages, coupled with load growth and generation retirements, there will be increased congestion.
- There will also be times that PJM and the Transmission Owners will need to take on more risk in the near term to avoid greater risks in the long term.
 - This may result in an increase in emergency procedures (i.e. PCLLRWs), as well as transmission outages over peak summer/winter periods if necessary.

Presenter & SMEs:

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Member Hotline

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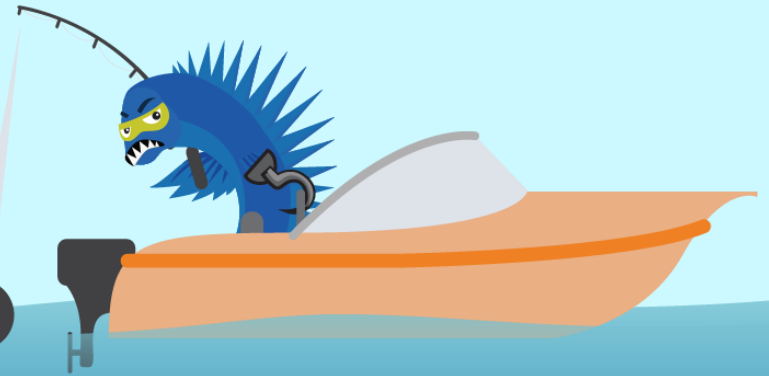
custsvc@pjm.com

**PROTECT THE
POWER GRID**

**THINK BEFORE
YOU CLICK!**



**BE ALERT TO
MALICIOUS PHISHING
EMAILS**



Report suspicious email activity to PJM.
Call (610) 666-2244 or email it_ops_ctr_shift@pjm.com