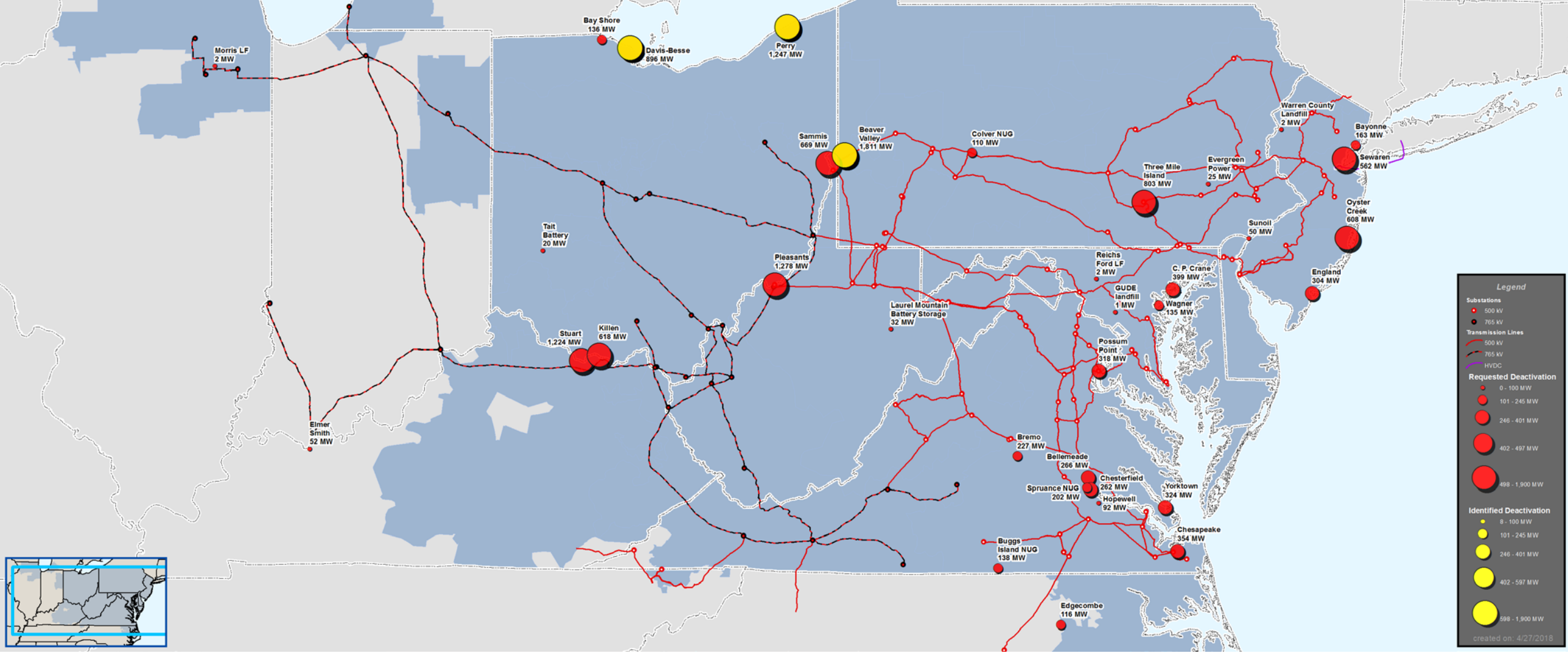




Generation Deactivation Notification Update

Transmission Expansion Advisory
Committee
May 3, 2018



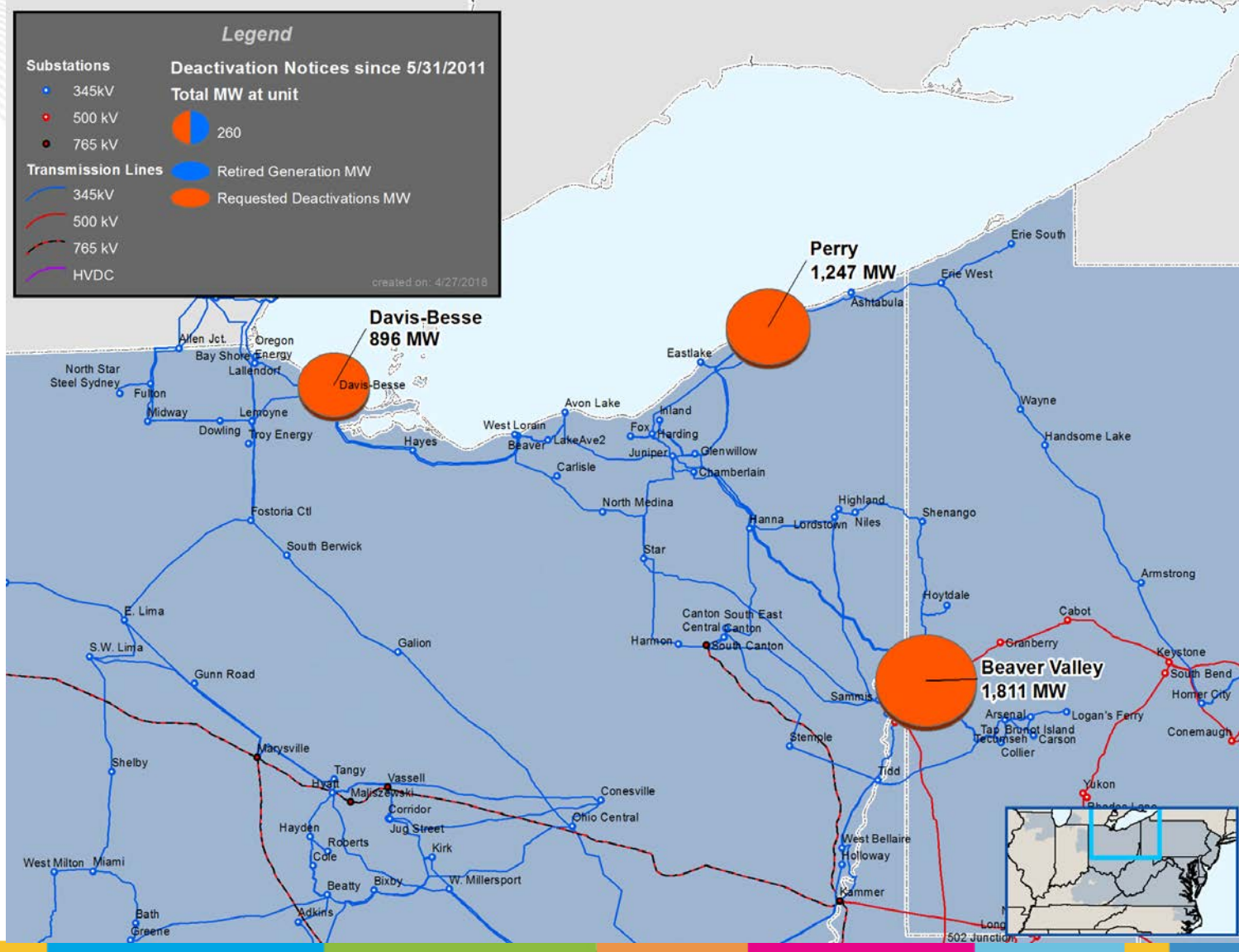


Deactivation Status

Unit(s)	Transmission Zone	Requested Deactivation Date	PJM Reliability Status
Davis Besse Unit 1 (896 MW)	ATSI	5/31/2020	Reliability analysis complete. New and existing baselines resolve identified impacts. Units can retire as scheduled Operational flexibility allows to bridge any delays with the transmission upgrades
Perry Unit 1 (1247 MW)	ATSI	5/31/2021	
Beaver Valley Unit 1 (909 MW)	DUQ	5/31/2021	
Beaver Valley Unit 2 (902 MW)	DUQ	10/31/2021	
Cumberland County Landfill (1.6 MW)	ACE	1/1/2019	

ATSI and Duquesne Transmission Zones

- Davis-Besse (5/31/2020)
 - Unit 1 896 MW
- Beaver Valley Unit 1 (5/31/2021)
 - Unit 1 909 MW
- Perry (5/31/2021)
 - Unit 1 (1247 MW)
- Beaver Valley Unit 2 (10/31/2021)
 - Unit 2 902 MW



Davis-Besse Nuclear Power Station Unit 1, May 31, 2020

- Thermal overloads of transmission lines will be resolved by accelerating the completion of previously identified baseline upgrades

Beaver Valley Power Station Unit 1 and Perry Nuclear Power Plant Unit 1, May 31, 2021

- Thermal overloads of transmission lines and thermal overloads of system transformers will be resolved by both accelerating the completion of previously identified baseline upgrades and completion of newly identified baseline upgrades

Beaver Valley Power Station Unit 2, October 31, 2021

- Thermal overloads of transmission lines and thermal overloads of a system transformer will be resolved by completion of newly identified baseline upgrades

RPM analysis (2021)

- Load Deliverability
 - ATSI, Cleveland, DLCO, and PJM West LDAs

Deactivation analysis (2020, 2021)

- Load Deliverability
 - ATSI, Cleveland, DLCO, and PJM West LDAs
- Generation Deliverability
- N-1-1

Load Deliverability

- Sufficient transmission margin remains to import emergency power into impacted LDAs

Generation Deliverability

- Transmission upgrades are required to preserve deliverability of all existing PJM capacity resources under various contingency conditions

N-1-1

- Sufficient transmission margin remains to ensure that under normal peak conditions there is enough redispatch options to operate the system with two single outages

Load Deliverability

- Examines whether transmission system can support capacity deliveries into areas impacted by deactivation
- Considers emergency conditions inside LDA with security constrained dispatch outside LDA
- Considers single contingencies only
- ATSI, Cleveland, DLCO & PJM West LDAs
- 2021 RPM & 2020-2021 RTEP
- Conclusion: Sufficient transmission margin remains after deactivations to import emergency power into impacted LDAs

Generator Deliverability

- Examines whether transmission system can support capacity deliveries from clusters of PJM generators to the rest of PJM
- Considers normal peak conditions without security constrained redispatch
- Considers single contingencies and common mode contingencies
- Operational flexibility allows to bridge any delays with the transmission upgrades
- Conclusion: Transmission upgrades are required to preserve deliverability of all existing PJM capacity resources under various contingency conditions

N-1-1

- Examines whether transmission system can support normal peak conditions with security constrained redispatch with two transmission or generation facility outages
- 2020-2021 RTEP
- Conclusion: Sufficient transmission margin remains to ensure that under normal peak conditions there is enough redispatch options to operate the system with two single outages

- V1 – 4/30/2018 – Original Slides Posted