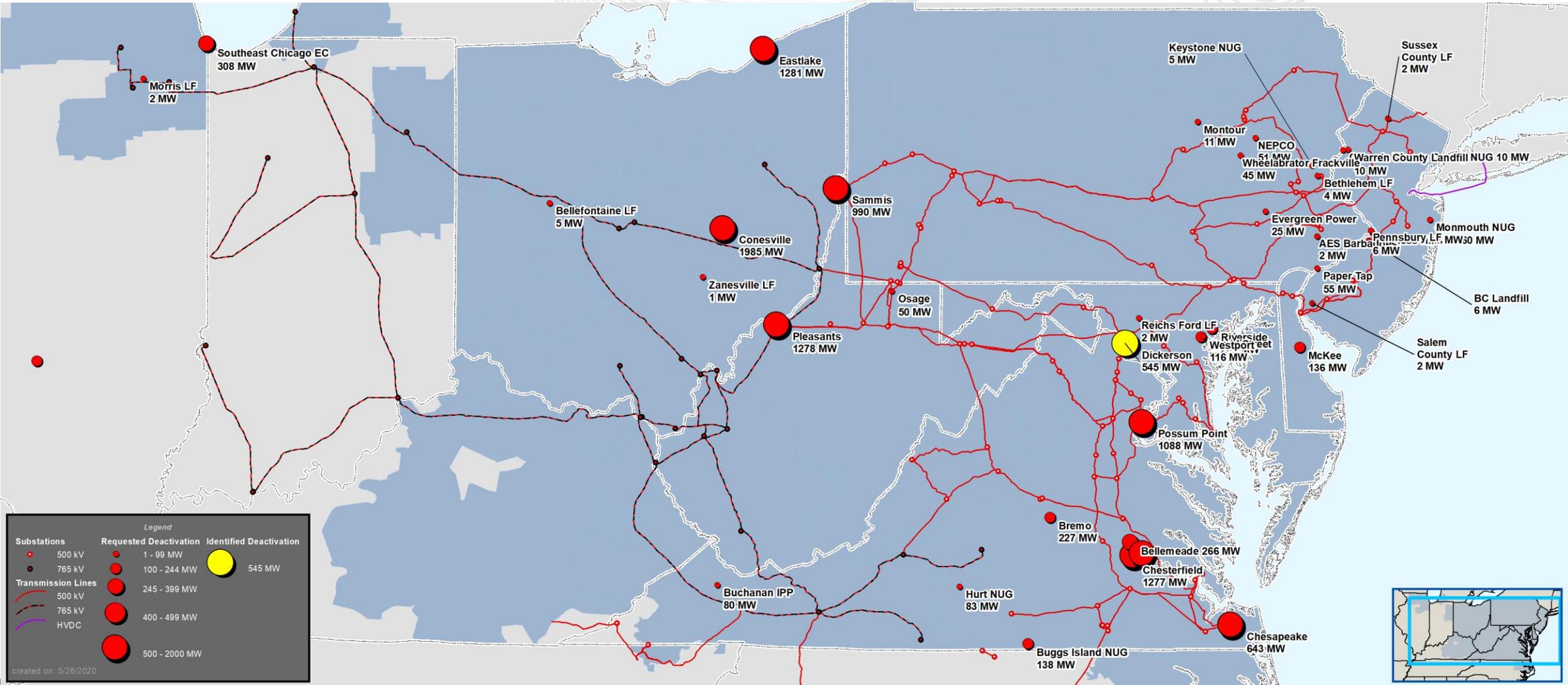




Generation Deactivation Notification Update

Transmission Expansion Advisory
Committee
July 7, 2020



Unit(s)	Transmission Zone	Requested Deactivation Date	PJM Reliability Status
Dickerson 1, 2, and 3 (545 MW)	PEPCO	08/13/2020	Reliability analysis Complete. Existing baseline revolves identified impact. Unit can retire as scheduled.

Problem Statement: Generation Deliverability for Dickerson 1, 2, and 3

Messick Rd. – Ridgeley 138 kV line is overloaded for the following scenarios.

- Breaker failure contingency for loss of Bedington - Black Oak 500 kV line and Bedington 500/138 kV Transformers 1&3
- Breaker failure contingency for loss of Bedington - Black Oak 500 kV line, Bedington 500/138 kV Transformers 2&4, and Capacitor Bank at Bedington 500 kV bus

Recommended Solution(B3158):

Replace line relays on the Ridgeley Terminal at Messick Rd. 138 kV Substation.

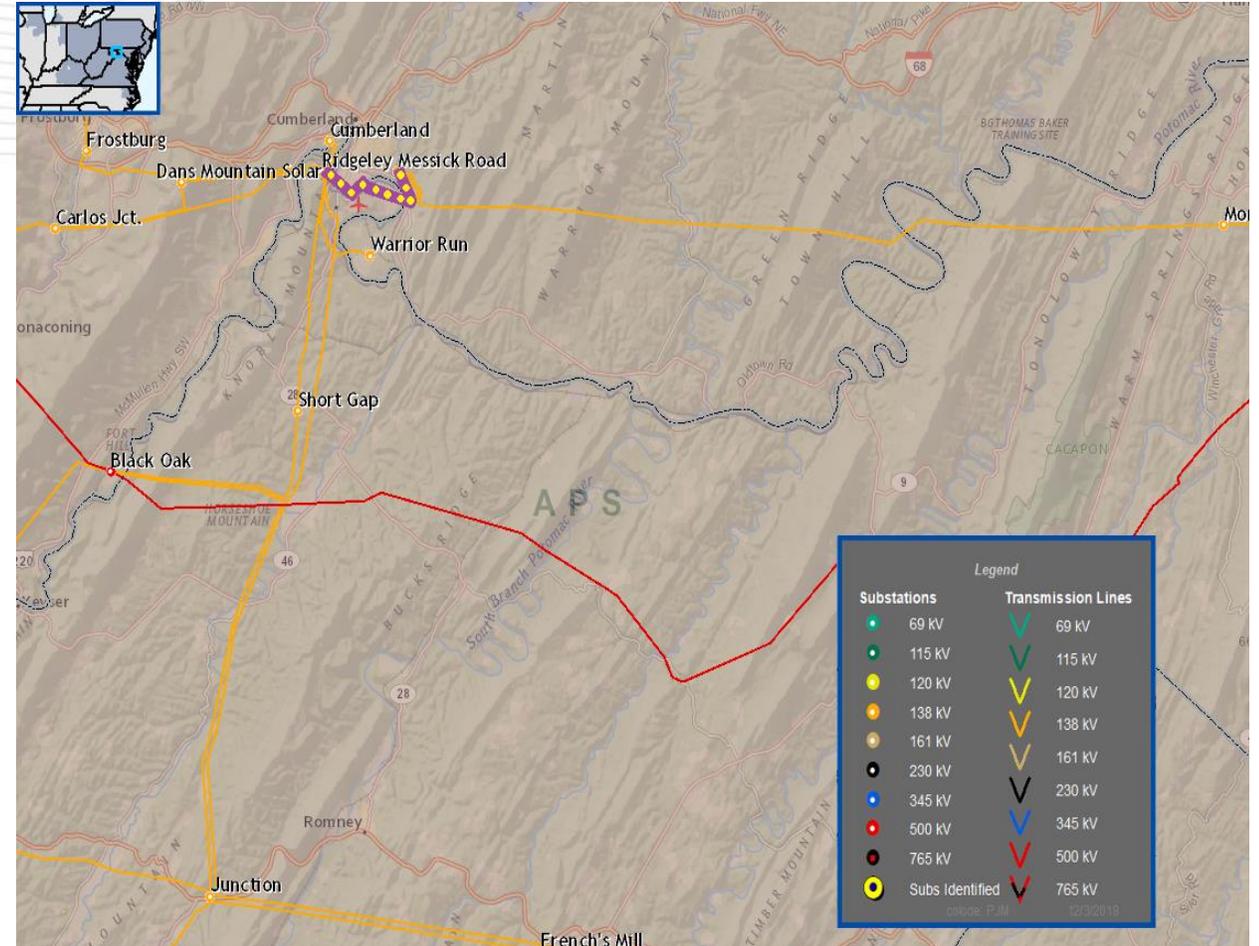
- Existing Scope Rating: 221 MVA SN /229 MVA SE
- New Scope Rating: 221 MVA SN /268 MVA SE

Estimated Project Cost: \$0.14M

Original Required IS Date: 12/1/2024

Newly required IS Date: 08/13/ 2020

Projected IS date: 06/01/2021





Buchanan 1 and 2 deactivation: AEP Transmission Zone

Additional Problem Statement: N-1-1 voltage violations - FERC 715 AEP criteria violation

Original TEAC Date: 10/17/2019

Deactivation units: Buchanan 1 and 2 (80MW)

Requested Deactivation Date: 06/01/2023

Richland, Whitewood, Shack Mills, Grassy Creek, Buchanan, Keen Mountain 138 kV buses became radial line connection for the following N-1-1 contingencies:

- Broadford - Claypool Hill and Claypool Hill – Richland 138 kV.
- Hales Branch - Garden Creek and Hales Branch – Shack Mills 138 kV along with loss of Hales Branch 69 kV bus.

As a result, these radial connected 138 kV buses, and 69 kV buses through Richland 138 kV bus have voltage magnitude and drop violations.

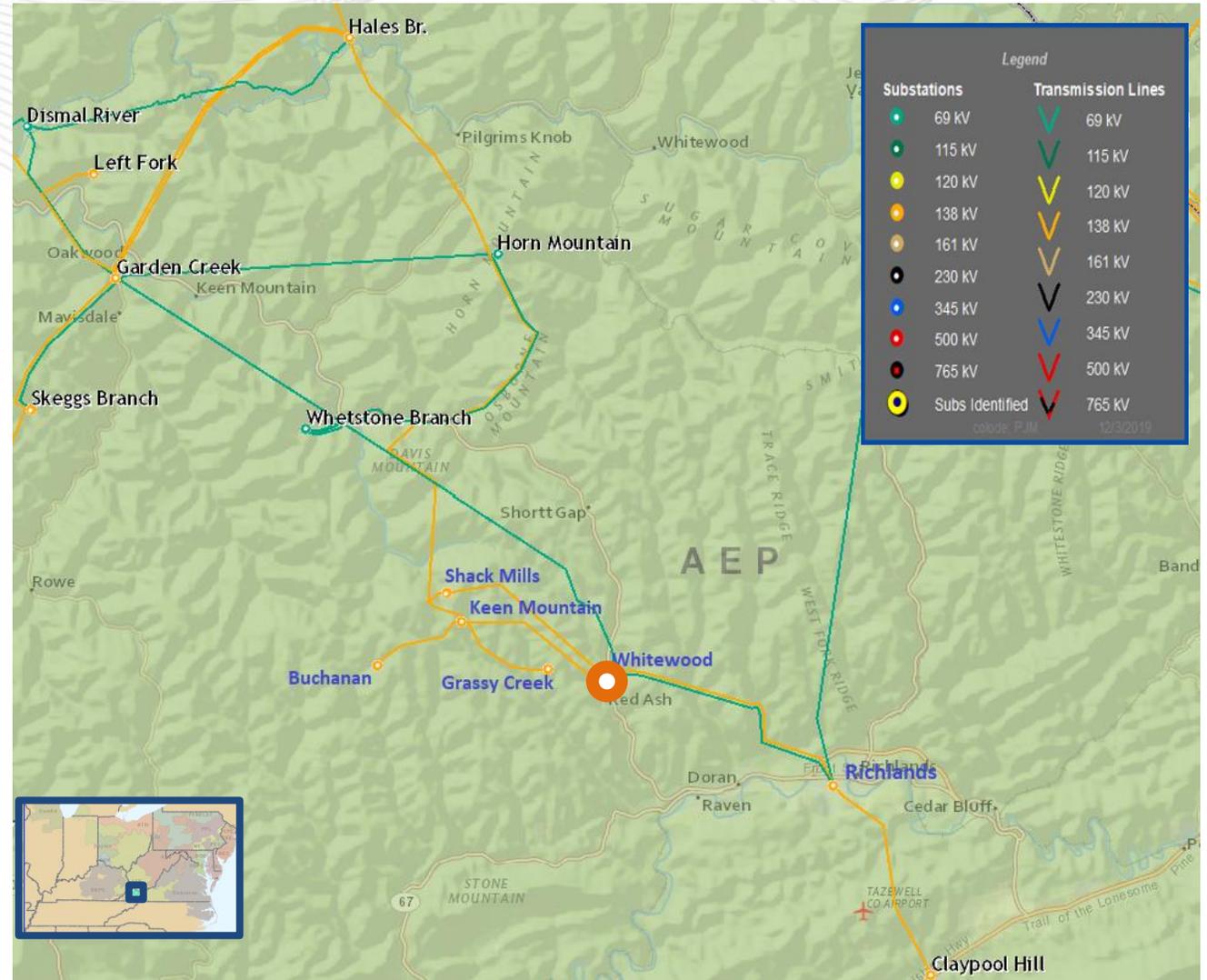
Recommended Solution (B3220):

- Install 14.4 MVAR Capacitor Bank at Whitewood 138 KV

Estimated Project Cost: \$1.2M

Required IS Date: 06/01/2023

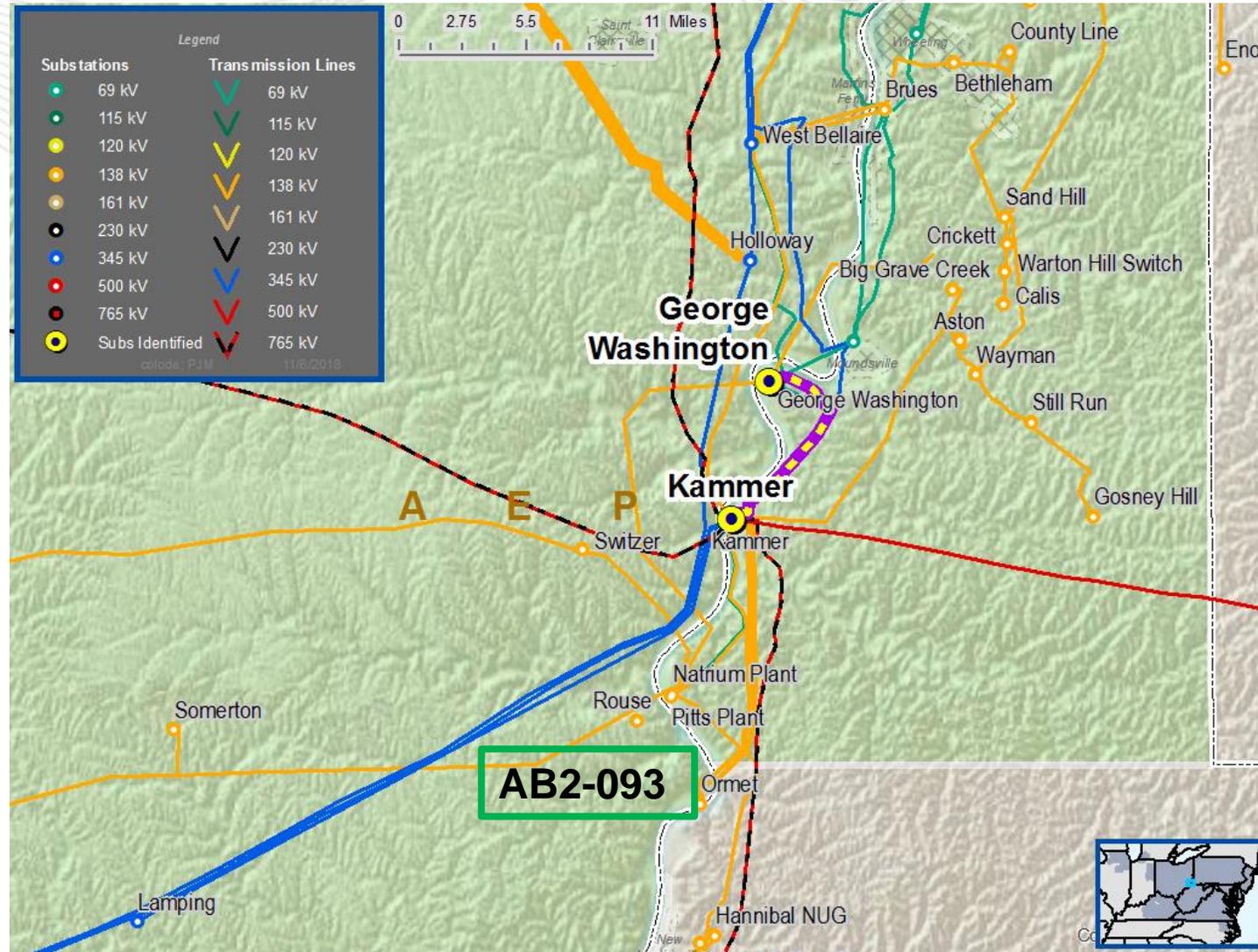
Projected IS Date: 12/31/2022



The following pending resolution upgrade is required due to executed AB2-093 ISA

- B3085 (AEP) - Conductor Kammer – George Washington 138 kV line (~0.08 mile) and replace wavetrap at Kammer 138 kV bus
- Current rating: SN 296 MVA / SE 398 MVA
- New rating: SN 389 MVA / SE 550 MVA

Estimated Project Cost: \$0.5M
Required IS Date: 06/01/2022
Projected IS Date: 06/01/2022

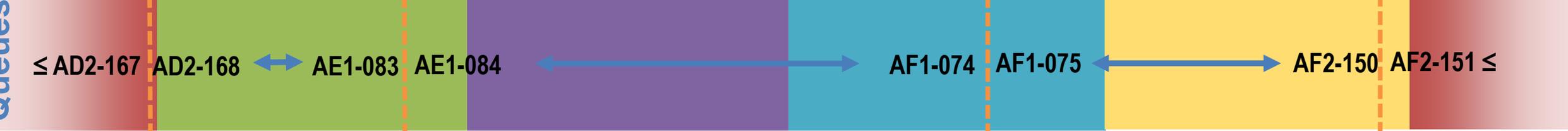




Beaver Valley 1 & 2 Reinstatement Queue Impact

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec | Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec | Jan Feb Mar Apr May Jun

2018 AD2-Queue AE1-Queue AE2-Queue AF1-Queue AF2-Queue AG1-Queue



RTEP

	b3005	b3215	B3015.2
	B3006	b3216	b3015.3
b2965	b3007.1	b3011.5	b3015.4
b2967	b3007.2	b3011.6	b3217
	b3008	b3012.1	b3015.7
	b3009	b3012.2	b3015.8
	b3010	b3013	b3016
	b3011.1	b3014	b3017
	b3011.2	b3015.1	b3024

b3012.3	b3066	b3075	b3084
b3012.4	b3067	b3076	b3085
b3061	b3068	b3077	
b3062	b3069	b3078	
b3063	b3070	b3079	
b3064.1	b3071	b3080	
b3064.2	b3072	b3081	
b3064.3	b3073	b3082	
b3065	b3074	b3083	

b2965	b3215	b3015.7
b3214	b3216	b3015.8
b3006	b3011.5	b3016
b3007.1	b3012.1	b3024
b3007.2	b3015.1	b3064.1
b3008	B3015.2	b3064.2
b3009	b3015.3	b3064.3
b3011.1	b3015.4	b3084
b3011.2	b3217	b3085

Notices

03/28/2018: First Energy announces deactivation of **Davis Besse 1, Perry 1, and Beaver Valley 1-2**

08/29/2018: First Energy announces deactivation of Eastlake 6, **Sammiss 5-7**, Sammiss Diesel, and Mansfield 1-3

07/29/2019: First Energy announces reinstatement of Davis Besse 1, Perry 1, and Sammiss 5-7

03/13/2020: First Energy announces reinstatement of Beaver Valley 1-2

- V1 - 06/30/20 - Original slides posted
- V2 – 07/02/20 – Baseline number was corrected from B3065 to B3085 for slide 6 and 7.