



Solution for the Immediate Need Operational Performance Issues: AEP 765kV Switchable Line Reactors

Second Read

Wenzheng Qiu
Transmission Planning
Transmission Expansion Advisory Committee
June 4, 2024



Operational Performance: 765kV Fixed Line Reactors

Process Stage: Recommended Solution – Second Read

Criteria: Operational Performance

Assumption Reference: Real time operation

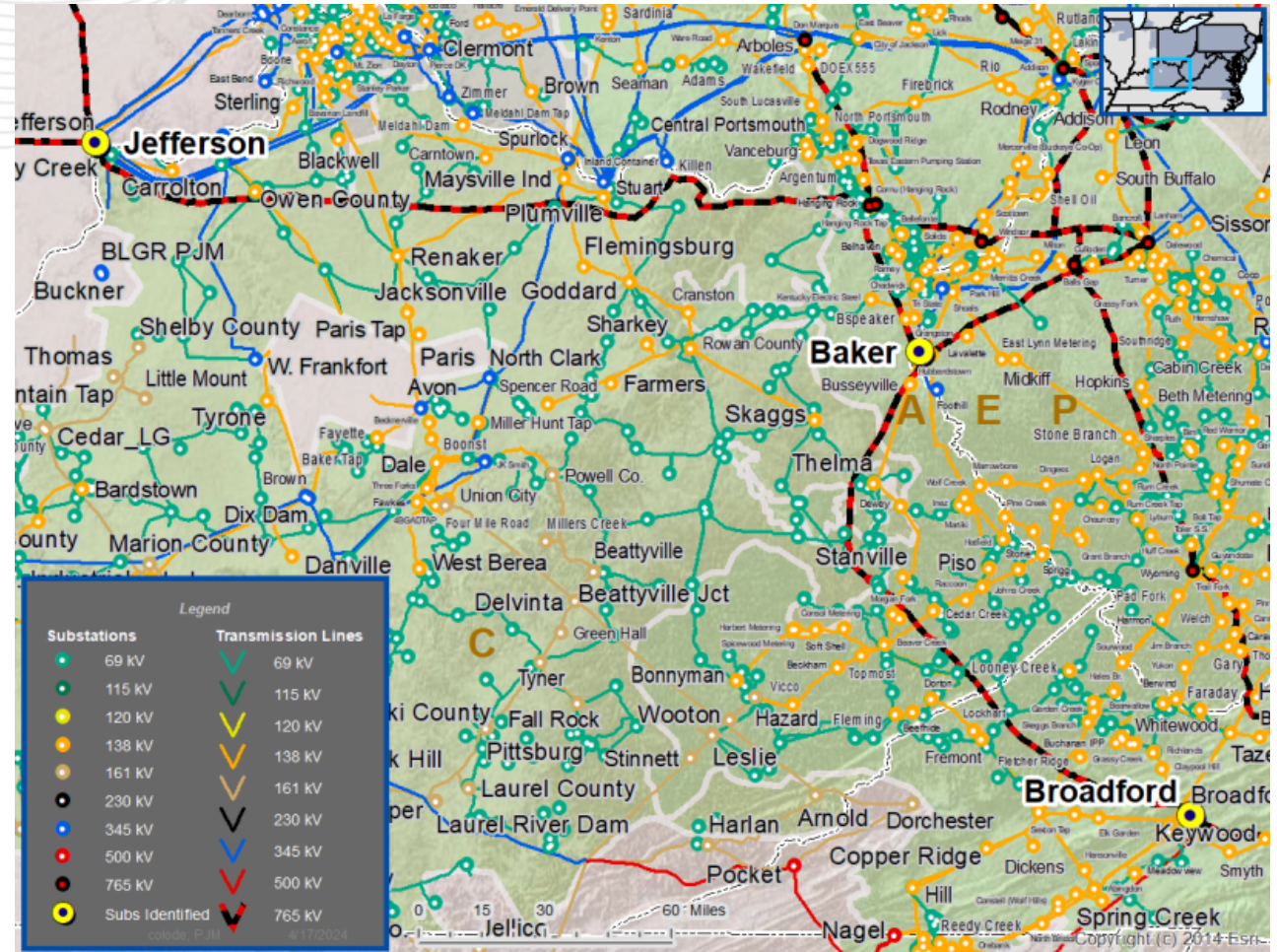
Model Used for Analysis: Operation cases

Proposal Window Exclusion: Immediate Need

Problem Statement:

PJM Operations has requested flexibility in the ability to switch in 765 kV reactors at Baker, Broadford, and Jefferson stations. Currently, these reactors are tied directly to the line which requires a line outage to switch the reactors on and off. During recent winter storm events, PJM determined that having the ability to remove these reactors from service could have helped support certain systems.

* The detailed need was presented in 4.2.2024 TEAC and the need document was posted at <https://pjm.com/committees-and-groups/committees/teac> under the same TEAC as one of the Informational only items.





AEP Transmission Zone: Baseline Operational Performance: 765kV Fixed Line Reactors

Recommended Solution:

- Add a 765 kV breaker at Baker station for the reactor on the Broadford 765 kV line (B3847.1). **Estimated Cost: 23.36M**
- Add two 765 kV breakers to the reactors at Broadford station on the Baker and Jacksons Ferry 765 kV lines (B3847.2). **Estimated Cost: 29.05M**
- Add a 765 kV breaker to the reactor at Jefferson station on the Greentown 765 kV line (B3847.3). **Estimated Cost: 8.53M**

Total Estimated Cost: \$60.935 M

Required IS Date: 6/1/2027

Projected IS Date: 6/1/2027

Previously Presented: 4/30/2024

Facilitator:
Jason Connell,
Jason.Connell@pjm.com

Secretary:
Tarik Bensala,
Tarik.Bensala@pjm.com

SME/Presenter:
Wenzheng Qiu,
Wenzheng.Qiu@pjm.com



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

Version No.	Date	Description
1	5/23/2024	<ul style="list-style-type: none">• Original slides posted

**PROTECT THE
POWER GRID**
**THINK BEFORE
YOU CLICK!**



Be alert to
malicious
phishing emails.

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

