



PJM RTEP – 2014 Project Proposal Window 1: “Clinch River – Beaver Creek 138kV Proposal”

A Proposal to PJM Interconnection, Submitted July 28, 2014

Submitted by

American Electric Power “AEP” Transmission

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A. Executive Summary

Introduction

American Electric Power (“AEP”) submits this proposal (the “Proposal”) to PJM Interconnection, LLC (“PJM”) in response to the *PJM RTEP 2014 Project Proposal Window 1 (Thermal Baseline Contingency, Generator Deliverability & Common Mode Outage, Load Deliverability and N-1-1 Thermal)*. This Proposal details a proposed solution to one or more potential violations on facilities referenced in the *Problem Statement & Requirements Document*, dated June 27, 2014. AEP seeks to be considered the Designated Entity for the project described within this Proposal.

As the Designated Entity AEP is proposing to construct, own, operate and maintain the proposed 138kV line and associated station assets.

The Proposed Project

AEP proposes to establish approximately forty three miles of new single-circuit transmission line in an area comprised of mostly rocky, hilly pastures and terminate the proposed line at the AEP owned Clinch River and Beaver Creek 138kV stations. The line will terminate at the Clinch River 138kV station via a single 138kV breaker. The breaker installation will complete the G breaker and one-half string. The line will terminate at the Beaver Creek 138kV station via a newly established 138kV structure and bus work, located in the retired Beaver Creek SVC yard. The new 138kV arrangement will connect to the assisting Beaver Creek 138kV yard utilizing two 138kV bus tie breakers. The line will connect to the new structure via three 138kV breakers, arranged in a breaker and one-half arrangement.

Figure 1-1 presents a preliminary depiction of the Project

(REDACTED)

Figure 1-1 Preliminary Design

Figure 1-2 presents the preliminary geographical representation of the 138kV line.

(REDACTED)

Figure 1-2 Preliminary Site Map



The project addresses the following potential planning criteria violations (REDACTED).

Contingency ID	Description	Loading
5296_B2_TOR97B_MOAB	Clinch River – Clinchfield – Fletch Ridge	113.88
5295_B2_TOR97A_MOAB	Fletchers Ridge – Skeggs Branch – Garden Creek	109.71
5294_B2_TOR97_WOMOAB	Clinch River – Garden Creek Circuit	113.3
1375_B3	Broadford 765/500kV Transformer	110.25
8345	Clinch River – Fremont & Clinch River – Dorton Tower Outage	118.58
8634	Clinch River – Fremont & Clinch River – Lockhart Tower Outage	117.4
8344	Beaver Creek – Fremont & Clinch River – Dorton	111.25
1528_C2	Broadford Breaker P2	115.8
Base Case	Base Case	103.27
8345	Clinch River – Fremont & Clinch River – Dorton Tower Outage	102.52
8634	Clinch River – Fremont & Clinch River – Lockhart Tower Outage	101.52
1528_C2	Broadford Breaker P2	100.2
Base Case	Base Case	106.65
5296_B2_TOR97B_MOAB	Clinch River – Clinchfield – Fletch Ridge	101.21
5294_B2_TOR97_WOMOAB	Clinch River – Garden Creek	100.73
8345	Clinch River – Fremont & Clinch River – Dorton Tower Outage	105.13
8634	Clinch River – Fremont & Clinch River – Lockhart Tower Outage	104.14
1528_C2	Broadford Breaker P2	102.82
Base Case	Base Case	108.39
8634	Clinch River – Fremont & Clinch River – Lockhart Tower Outage	111.8
8345	Clinch River – Fremont & Clinch River – Dorton Tower Outage	107.84
6174_B2_TOR98A_MOAB	Clinch River – Lebanon	106.61
6173_B2_TOR98_WOMOAB	Clinch River – Saltville Circuit	106.46
6175_B2_TOR98B_MOAB	Lebanon – Elk Garden – Saltville	105.83
6176_B2_TOR98C_MOAB	Elk Garden – Saltville	105.01
6174_B2_TOR98A_MOAB	Clinch River – Lebanon	104.41
6173_B2_TOR98_WOMOAB	Clinch River – Saltville Circuit	104.26
6175_B2_TOR98B_MOAB	Lebanon – Elk Garden – Saltville	103.63
6176_B2_TOR98C_MOAB	Elk Garden – Saltville	102.81



AEP transmission has undertaken preliminary project development work to determine project constructability, preliminary cost estimates and a construction schedule. The estimated cost of the Project is estimated to cost \$94.9 million. This estimated cost includes all components of the Project, including those that may be considered as “upgrades” by PJM. The Project could be placed in service as early as late 2019.

REDACTED

Figure 1-3 Overall Cost Estimates

Refer to the section of this proposal titled “Greenfield Project Proposal Template” for additional detail regarding the project schedule and capital cost estimates.

B. Company Evaluation Information

REDACTED

C. Proposed Project Constructability Information

(REDACTED)