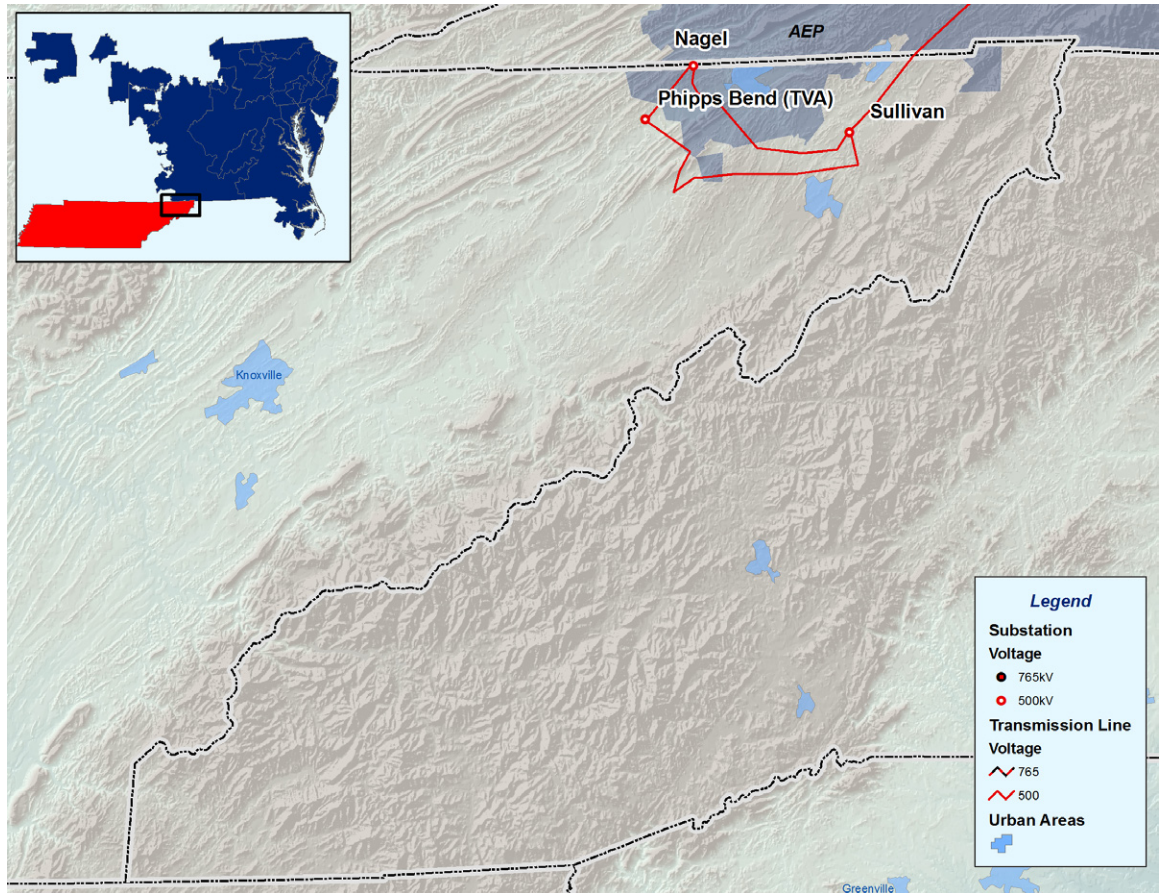




### 8.11: Northeastern Tennessee RTEP Overview

PJM operates the electric transmission system in northeastern Tennessee served by American Electric Power (AEP), as shown on Map 8.45. Customers are served by native generation resources and power transfers across tie-line facilities with adjoining systems.

Map 8.45: PJM Service Area in Northeastern Tennessee



**Table 8.45: Critical Issues in Northeastern Tennessee**

RTEP Topic	Report Section	Importance
Load Growth Trends	2.2	10-year forecasted peak power demand for individual TO zones
Load Management Trends	2.9	Impacts of Load Management as a capacity resource.
Generator Interconnection Plans	2.3	New sources of electric power to meet customer demand.
Wind and other renewable fuel sources	2.3.4	Potential for wind and other renewable fuel generating resources to meet RPS requirements.
Generator Deactivations	2.4	Impact on transmission requirements from generation removed from operation.
Merchant Transmission Interconnection Plans	2.5	Impact of merchant transmission interconnection requests.
502 Junction - Loudoun (TrAIL) 500 kV Line Validation	3.2	Resolving NERC reliability criteria violation overloads beginning in 2011
Amos-Kemptown 765 kV Line (PATH) Validation	4.3	Resolving NERC reliability criteria violation overloads beginning in 2013
2013 Baseline Upgrades Below Backbone 500 kV Level	5.5	Resolving zone-specific NERC-based reliability criteria violations.
Additional Backbone Facilities Under Construction	7.0	Ongoing assessment of need for new backbone transmission facilities.
Market Efficiency Studies	7.0	Assessing RTEP upgrades for potential market efficiency benefits.

***Critical RTEP Issues and Upgrades***

PJM continues to address a number of issues with a bearing on reliability in northeastern Tennessee and the regional transmission expansion plans required to maintain reliability. Table 8.45 which follows summarizes key critical issues facing northeastern Tennessee and identifies sections of this report where additional discussion may be found.

### 8.11.1 – Load Growth and Existing Generation

#### ***Internal Load Growth***

Load Growth for summer and winter periods is shown in Table 8.1 in **Section 8.0.2**. The peak summer load growth rate for the AEP Transmission Owner zone within PJM is expected to be 1.1% on average over ten years through 2018. The peak winter load growth rate for AEP is expected to be 0.8% on average over ten years through 2017/18.

Forecasted loads are modeled in power flow studies used to develop PJM's RTEP through December 2008. PJM's RTEP includes baseline transmission upgrades to meet expected 2013 peak load conditions. PJM's ongoing RTEP process continues to study anticipated needs for additional transmission expansion plans to meet load growth requirements beyond 2013 as well.

#### ***Existing Generating Capability***

No existing generating resources are located in the portion of northeastern Tennessee served by PJM through AEP.

### 8.11.2 – Generator Interconnection Requests

PJM has no queued interconnection requests – active or under construction - for new generating resources in northeastern Tennessee as of the close of Queue U4, January 31, 2009.

### 8.11.3 – Generation Deactivations

PJM has not received notice of any anticipated generator deactivations in northeastern Tennessee, through December 31, 2008.

### 8.11.4 – Merchant Transmission Interconnection Requests

PJM's interconnection queues contained no requests for merchant transmission in northeastern Tennessee through the close of Queue U4 on January 31, 2009.

### 8.11.5 – Transmission Expansion Plans in Northeastern Indiana

Through December 31, 2008, no new baseline reliability upgrades have been identified for northeastern Tennessee as served by PJM through AEP.

### 8.11.6 – Interconnection Requests for Generation Powered by Renewable Fuel Sources

PJM has no queued interconnection requests – active or under construction - for new generating resources in northeastern Tennessee as of the close of Queue U4, January 31, 2009.

