



Electric Transmission: A Changing Environment

NCSL Energy Summit

August 6, 2012



The Value of Electric Transmission



- Upgrading the safety, reliability and efficiency of our nation's transmission system will require a significant amount of future investment with current estimates ranging from **\$100 to \$300 billion over the next 20-years**
- This level of investment is estimated to **stimulate \$30 billion to \$40 billion in annual economic activity and support 150,000 to 200,000 full-time jobs each year** over this 20-year period. Once operational, it will also **enable another 130,000 to 250,000 full-time jobs each year** in related activities such as construction of renewable projects *
- Investing in the transmission grid provides other important economic benefits, including:
 - Lower generation costs due to improved power markets and better utilization of the existing generation fleet
 - Access to lower-cost, more efficient renewable generation and associated reduced emissions
 - Federal, state, and local tax income payments
- Taken together, these benefits are estimated to **more than offset** the customer rate impacts of investment cost recovery

* Source: The Brattle Group, Employment and Economic Benefits of Transmission Infrastructure Investment in the U.S. and Canada, prepared in conjunction with WIRES (Working group for Investment in Reliable and Economic electric Systems), May 2011.

Drivers for Growth & Customer Impact

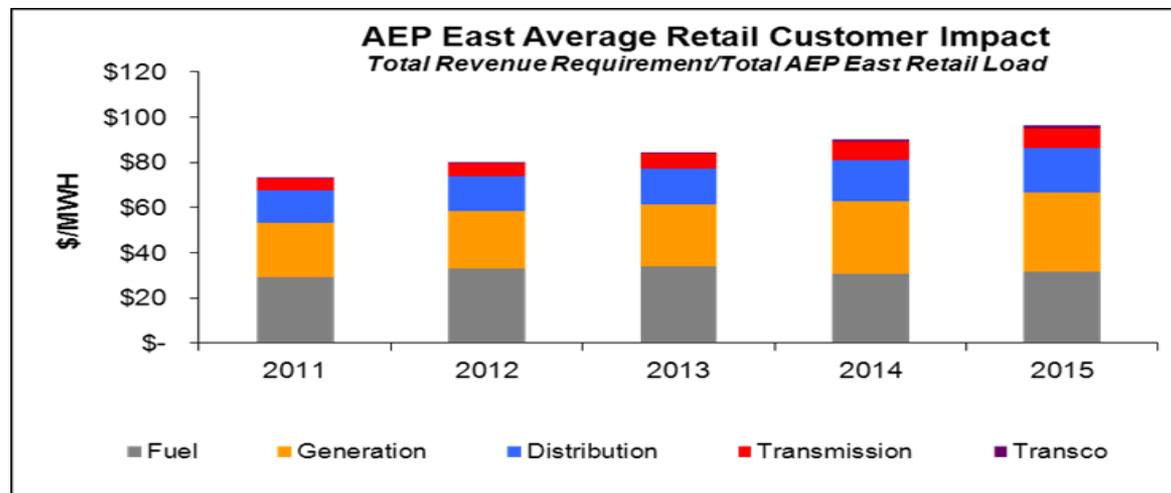


Drivers for Growth:

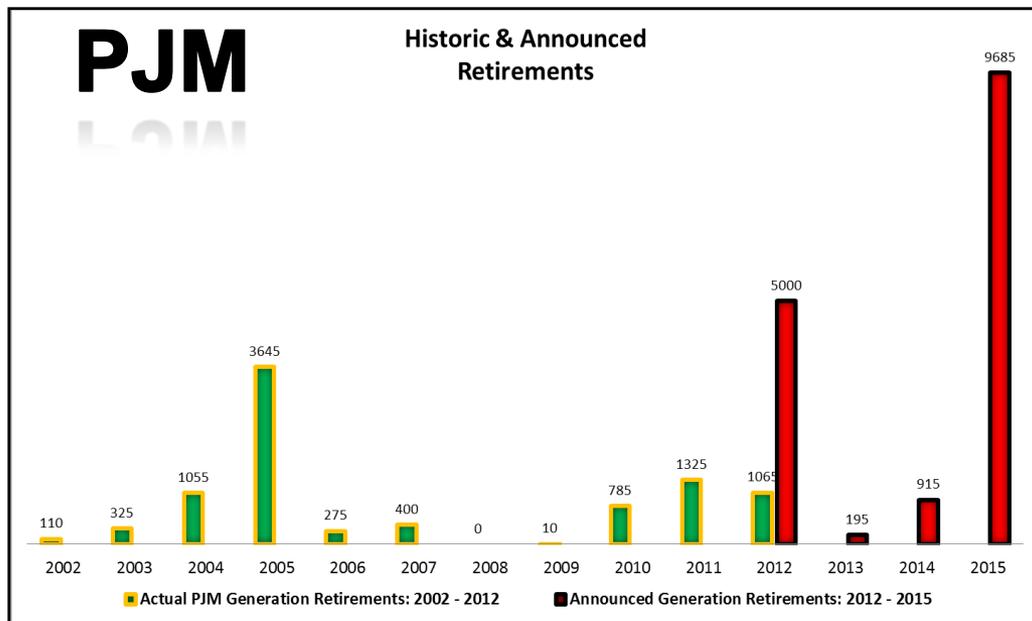
- Ageing transmission infrastructure in need of upgrade
- Maintaining system reliability standards to avoid widespread outages
- State-level public policy requirements, such as renewable portfolio standards and environmental policies
- Economic or market efficiency transmission needs that lower the overall cost of energy to customers by providing access to lower-cost generation and more diverse generation resources

Relative Customer Impact:

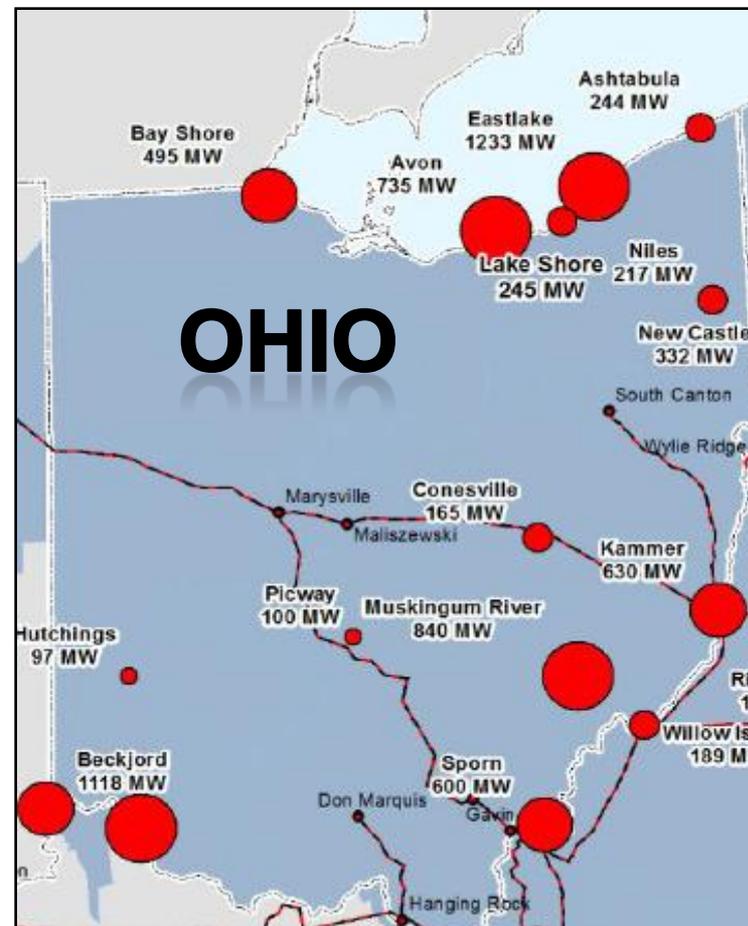
- Transmission represents a relatively small component of the overall cost of energy to customers while delivering tremendous benefits



Recent Example: PJM Generation Retirements



- A total of ≈ 9 GW of generation retired in PJM in the previous decade
- ≈ 16 GW of generation retirements announced in PJM in the near-term
 - ≈ 7 GW retiring in the state of Ohio alone
 - ≈ 3 GW is retiring on the shores of Lake Erie



Transmission: Bridging the Gap



- Historically, PJM has adequately managed small amounts of generation retirements, but it is now entering uncharted territory

- Transmission system impact of these generation retirements has created system reliability concerns, driving the need for transmission solutions
 - Approximately \$2 billion portfolio of transmission projects identified in Ohio will mitigate the impact of generation retirements

- Retirements have also triggered localized generation deficiency concerns, creating unprecedented increases in capacity auction prices
 - Annual resource clearing price in ATSI LDA of \$357 per MW-day compared with \$136 per MW-day for the RTO

- **What does this mean for consumers?**
 - **Providing access to lower-cost generation and more diverse generation resources can lower the energy component of customer bills**

FERC Order 1000:

- Eliminates, with certain exceptions, **Federal Rights of First Refusal (ROFRs)** contained in FERC-approved tariffs that entitle an incumbent utility to build transmission facilities identified in the regional transmission planning process
 - Instead, transmission companies will compete for the right to build future regional transmission projects
 - FERC believes this approach will help to ensure that the best transmission projects are identified and that customers will pay the most reasonable rates for those projects

- Additional Order 1000 reforms include:
 - Transmission Planning Reforms – participation in regional planning processes and consideration of state public policy requirements in the transmission planning process
 - **Cost Allocation Reforms – cost allocation roughly commensurate with benefits**

- Compliance with Order 1000 is being developed on a region-by-region basis, and submitted to FERC via Compliance Plans due October 2012. The order specifically requires that RTOs:
 1. Establish developer qualification criteria to establish eligibility to submit projects into regional plans
 2. Develop a formal process for submission of proposals
 3. Establish a formal process for evaluation of proposals in a fair and transparent manner
 4. Requires changes to tariffs to enable non-incumbent transmission developers to be eligible for regional cost recovery mechanisms
 5. File compliance filings for inter-regional reforms by April 2013

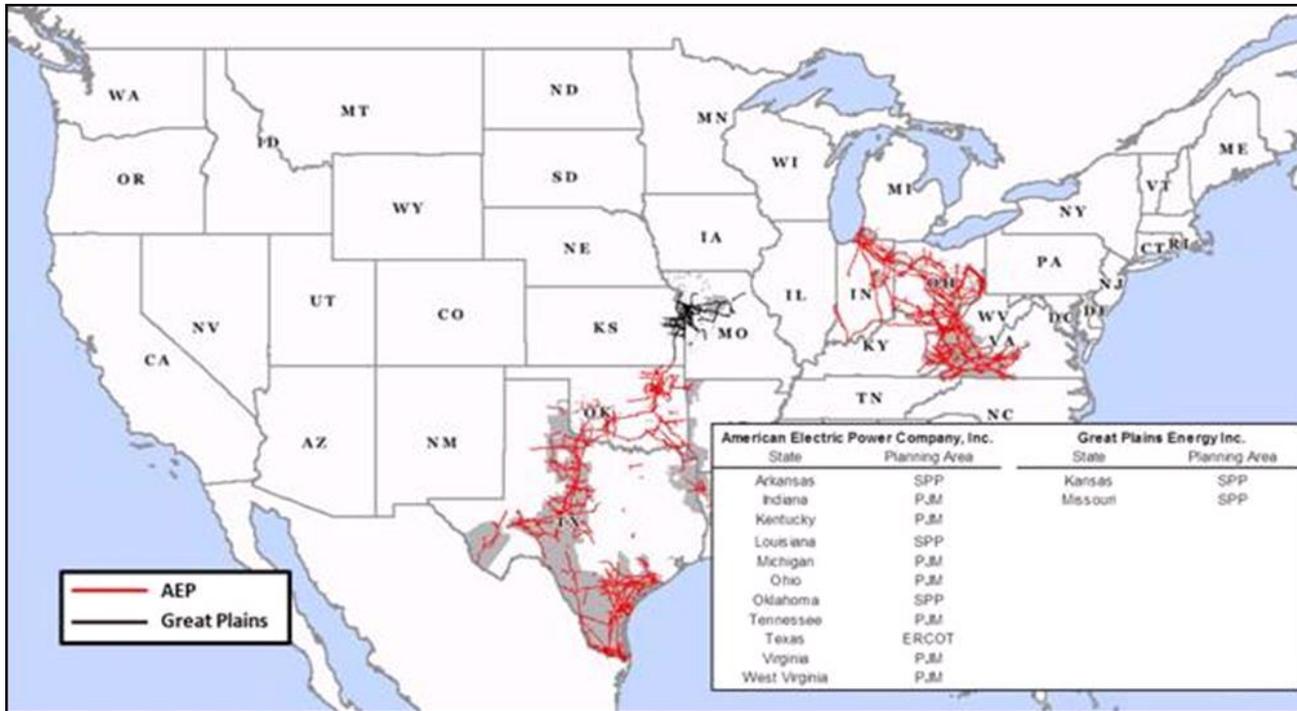
- States will maintain a significant regulatory role in a post-Order 1000 environment
 - State utility status requirements
 - Siting and routing requirements
 - Reporting requirements

Open, competitive, and transparent transmission development markets will ultimately precipitate the most efficient and cost-effective transmission solutions

Overview of Transource Energy



- Transource Energy is a newly formed joint venture between American Electric Power Company (AEP) and Great Plains Energy (GPE)

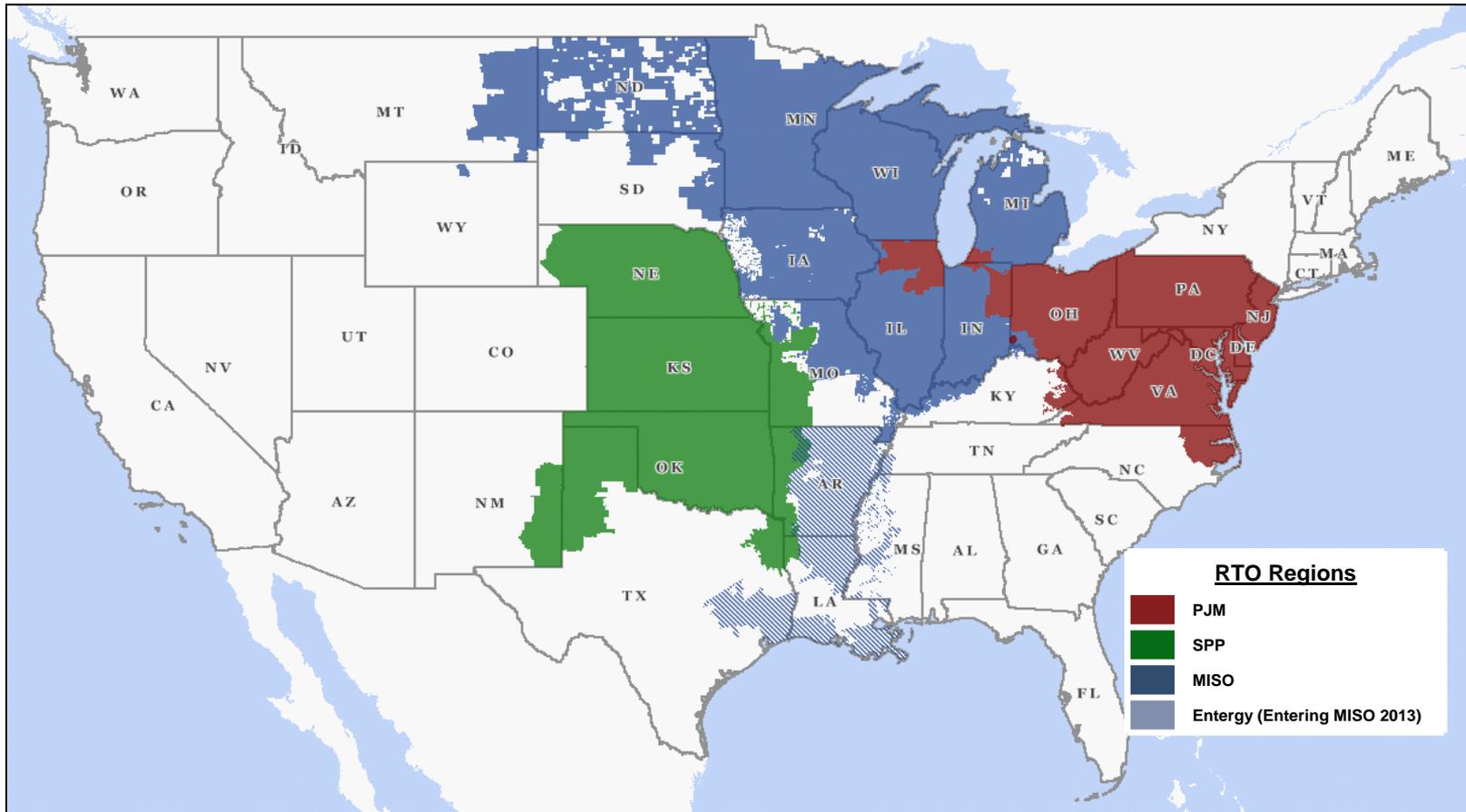


On a combined basis, the partners own and operate the largest electric transmission system in the United States, serve over six million customers in 13 states and operate 42,600 miles of transmission lines

Scope of Transource Energy



- Transource will initially focus on competitive projects in the PJM Interconnection, Southwest Power Pool (SPP) and Midwest Independent System Operator (MISO) regions
- Additional regions will be considered in the future as regional opportunities develop



Transource Benefits & Capabilities



- By leveraging the combined strength of AEP and GPE, Transource will have an exceptional capability to advance innovative and cost-effective solutions. Specifically, Transource has:
 - Vast experience planning and engineering the largest transmission portfolio in the country
 - Experience building, managing and maintaining every voltage class across the transmission spectrum at a low cost
 - Access to the technological advances developed by AEP Transmission
 - Ability to leverage procurement synergies from significant parent capital programs
 - Financial sophistication and capability to efficiently finance very large infrastructure projects
 - Broad regulatory experience across 13 states and 4 different markets
 - Demonstrated ability to collaborate with other local utilities on efficient designs and solutions, and use targeted strategic partnerships where synergies are present
 - Demonstrated ability to work closely with state and other regulators to get projects built
 - Obtaining state utility status and approvals
 - Obtaining project permits as necessary (e.g., NEPA, public lands, wetlands, state and local siting)

Impact of Future State Policies



- State policy can either help foster a competitive environment that will ultimately reduce costs to customers or can serve as a roadblock to these benefits

- Some states are considering implementing state-level Rights of First Refusal (ROFR) via a legislative process that effectively reverses the outcome of FERC Order 1000
 - Concerns being voiced about competition include:
 - Unqualified, non-incumbent developers would not maintain the same high standards for project development and reliable operations and maintenance
 - Non-incumbent entities would not be regulated by the respective states

- Concerns are unfounded and will be mitigated by RTO qualification processes, NERC reliability standards, and appropriate state regulation of new entities
 - Other qualified and experienced competitive development entities exist or are emerging today (e.g. Duke/ATC, ITC, Exelon Transmission, etc.)

Implementing a state-level ROFR for incumbents closes the door on the benefits to customers from competition at a time when unprecedented levels of investment are required