



ELECTRIC TRANSMISSION AMERICA, LLC

**Electric Transmission America, LLC**

**Energy Future Coalition**

**Expanding and Modernizing the Electrical  
Grid**

**October 21, 2010**

# The AEP & MidAmerican Partnership



- Electric Transmission Texas, LLC
  - Electric utility developing EHV transmission in ERCOT
  - Over \$1 billion of projects in-service or under development
  
- Electric Transmission America, LLC
  - Prairie Wind Transmission, LLC
    - 50% / 50% partnership between ETA and Westar
    - Developing portion of the SPP Priority Projects
  - Tallgrass Transmission, LLC \*
    - 50% / 50% partnership between ETA and OGE
    - Developing portion of the SPP Priority Projects
  - SMARTransmission Study
    - ETA-led study of EHV transmission plans for the Upper Midwest
    - Coordinated among several sponsors and numerous stakeholders



\* The Tallgrass Transmission partnership between OGE and ETA is an exclusive 765 kV partnership.

# Introduction to ETA



- Formed in 2007, Electric Transmission America (ETA) is a 50% / 50% owned joint venture between American Electric Power (AEP) and MidAmerican Energy Holdings Company (MEHC)
  - AEP owns and operates the nation's largest transmission system and brings expertise in building and operating EHV transmission
  - MidAmerican is the fifth-largest transmission owner in the nation and is a consolidated subsidiary of Berkshire Hathaway
- The primary purpose of ETA is to partner with like-minded incumbent utilities and leverage the diverse capabilities of each entity to develop large-scale transmission projects in North America, outside of ERCOT
- Our goal is to build Extra-High Voltage (EHV) transmission to improve reliability, market efficiency, and access remote generation sources

# What is New for Transmission Today?

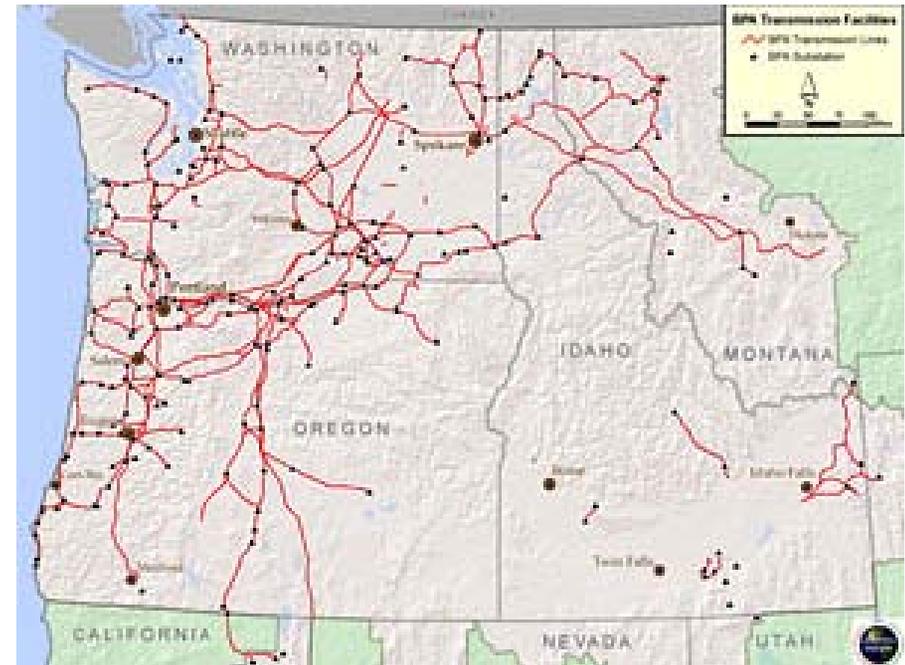


- The electric generation source of the future is not known with absolute certainty
  - Renewables – “location constrained”
  - New nuclear – time to commercial operation
  - Coal with carbon capture – not yet commercially available on a widespread basis
  - Natural gas – highly impacted by volatile commodity prices
- Transmission is no longer reactionary to generation or reliability needs but is viewed as an catalyst for the generation choices of the future
- Transmission infrastructure can provide the flexibility utilities need as the generation future unfolds

# A Case Study of the Benefits of a Robust Alternating Current Transmission System – The Bonneville Power Administration

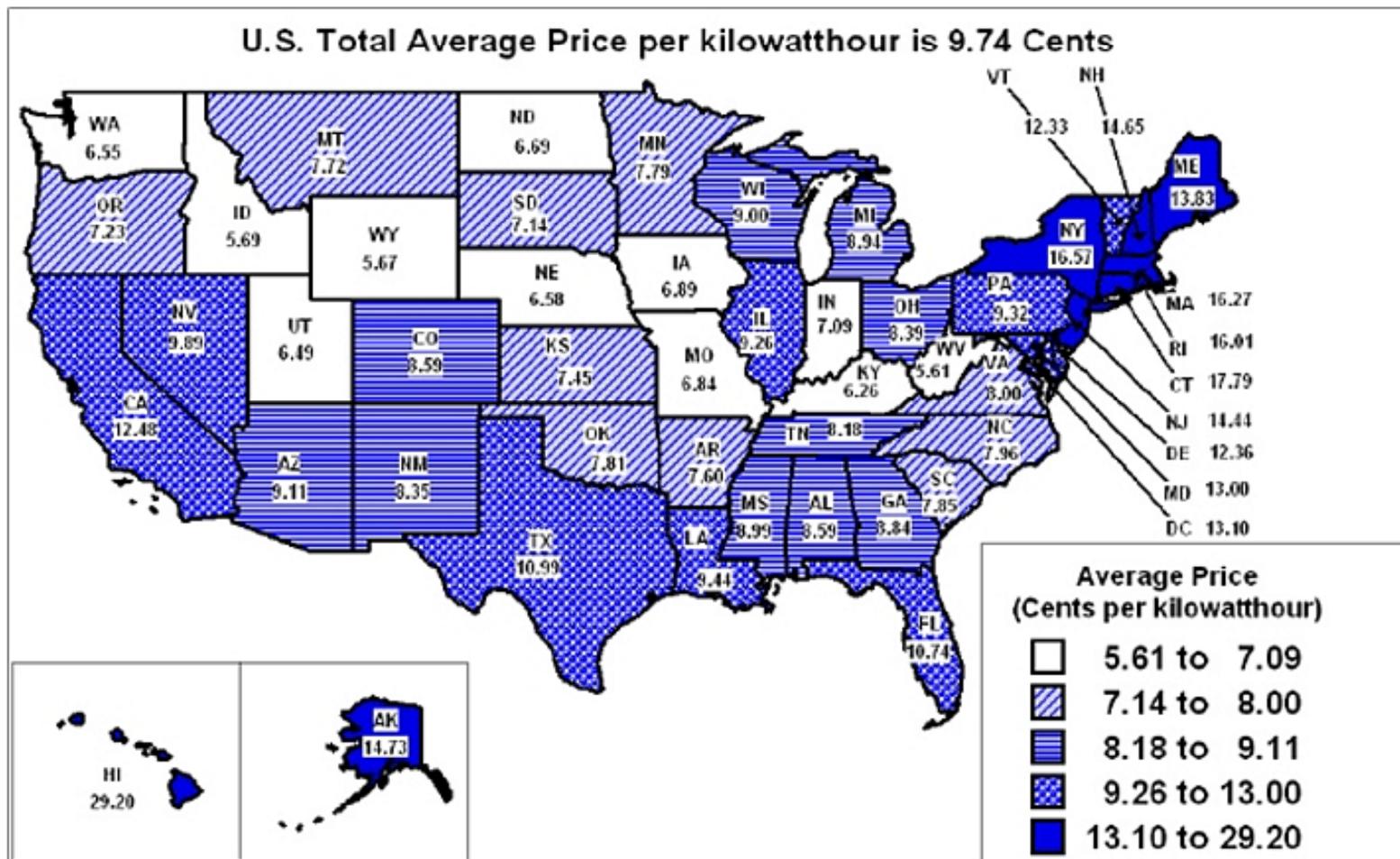


- 1932 - Franklin Roosevelt delivered a speech in Portland during the 1932 presidential campaign promised that the next great federal hydroelectric project would be built on the Columbia River
- Major construction from the 1940s through the 1960s created networks and loops of high-voltage wire touching most parts of BPA's service territory
- The first BPA Administrator established uniform "postage stamp" rates for BPA so that all utilities regardless of location paid the same price for transmission over BPA lines, and initiated an aggressive transmission line construction program
- At the outbreak of World War II, the power generated at Pacific Northwest dams contributed greatly to the defense industry, particularly in the production of aluminum, as well as plutonium production at the Hanford Reservation
- The BPA transmission today still today allows flexibility for:
  - Environmental fish constraint mitigation
  - Delivery of power to market both internally to the Pacific Northwest and the West
  - Limited wind integration



# Retail Price of Power

Average Retail Price of Electricity by State, 2008



Note: Data are displayed as 5 groups of 10 States and the District of Columbia.

Source: U.S. Energy Information Administration. Form EIA-861. "Annual Electric Power Industry Report"

# What is Needed for Transmission Build Today?



- Long term planning view
- Consideration of benefits to a large geographically diverse customer base
- Certainty of recovery of costs
- Collaboration between multiple entities to coordinate a build out



ELECTRIC TRANSMISSION AMERICA, LLC

## A Current Example of Collaboration

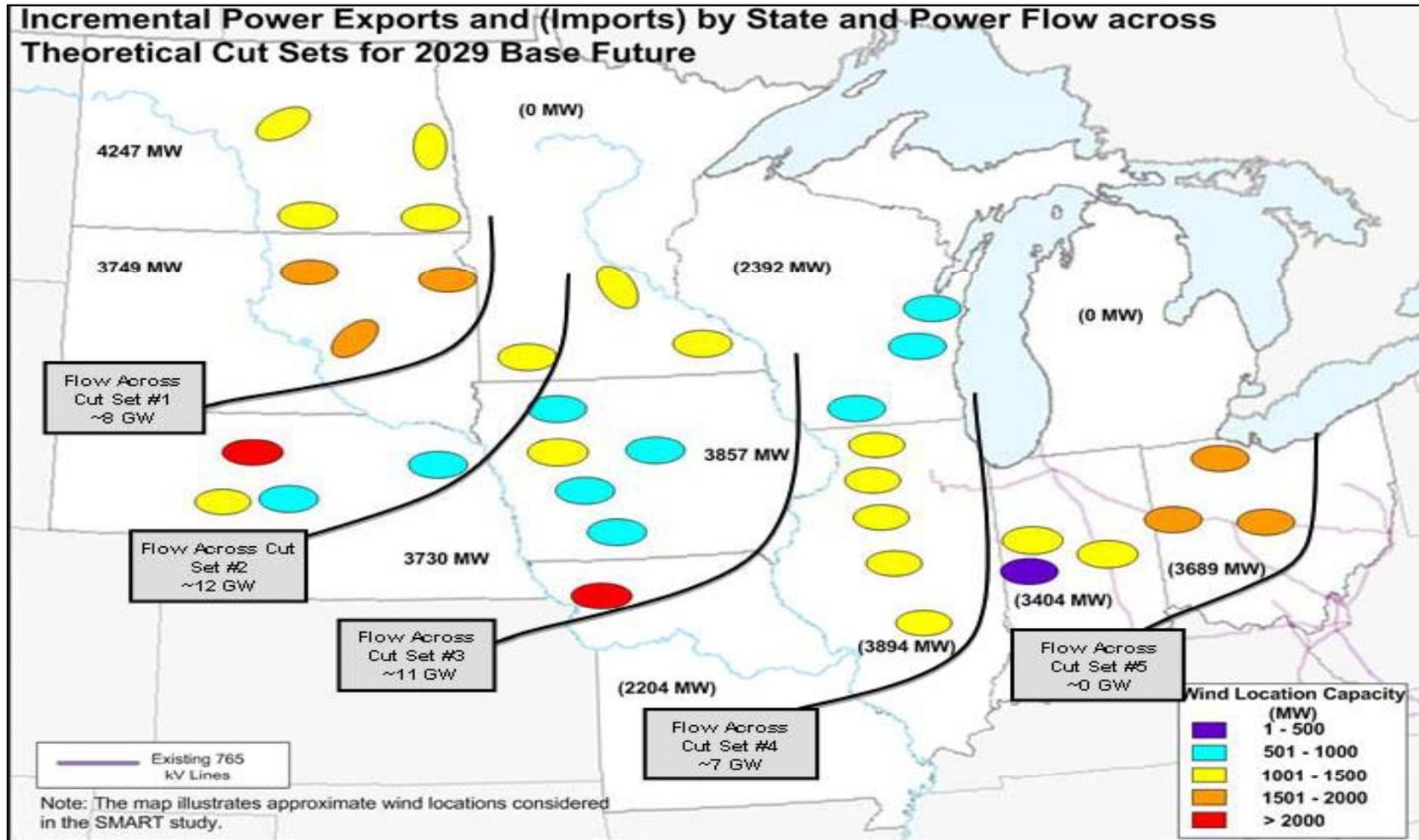
# Project Sponsors



- Electric Transmission America, LLC (ETA) – lead sponsor
  - American Electric Power (AEP)
  - MidAmerican Energy Holdings Company
  
- American Transmission Company (ATC)
  
- Xcel Energy
  
- Exelon Corporation
  
- MidAmerican Energy Company
  
- NorthWestern Energy

**SMART**transmission®

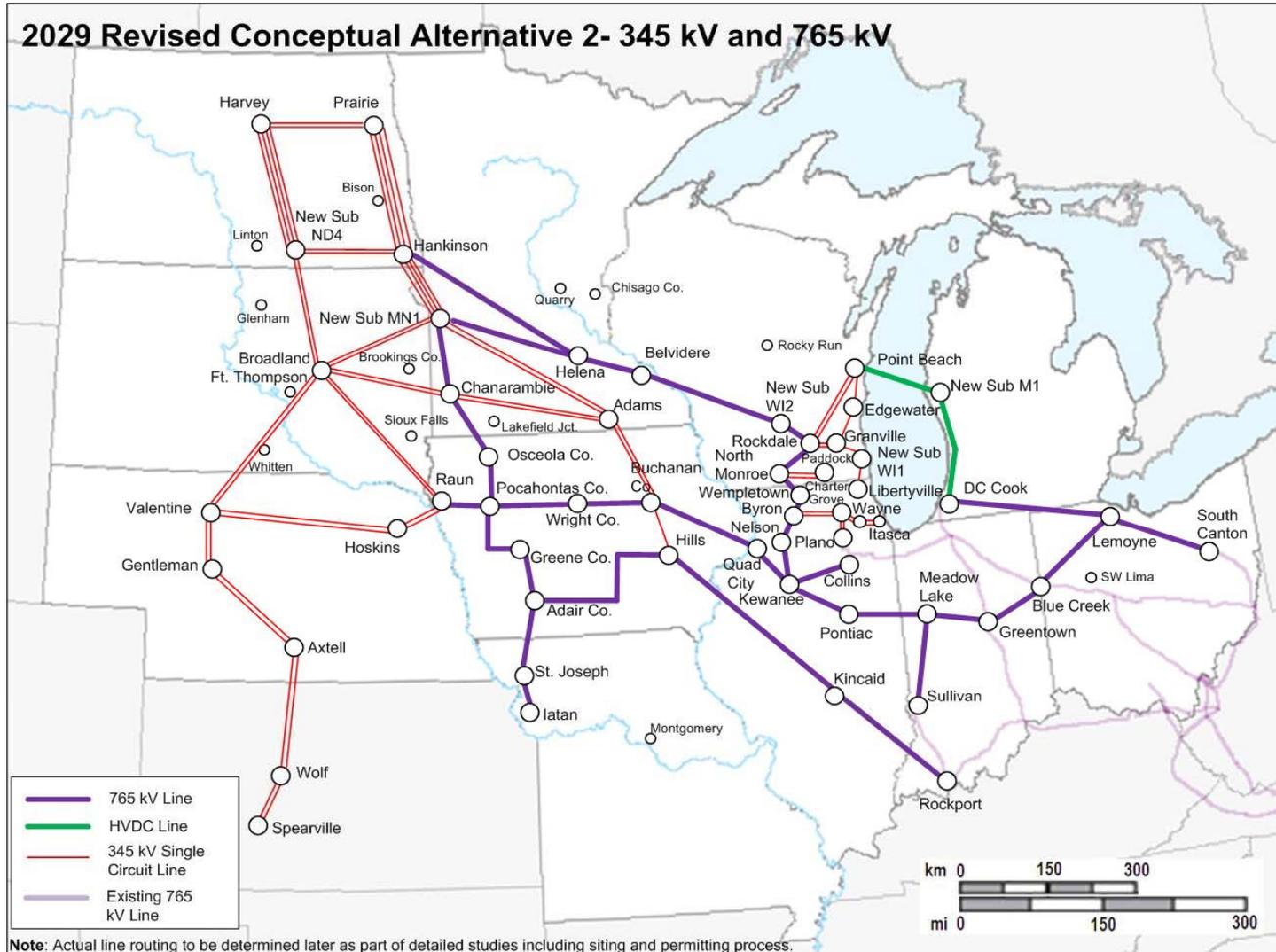
# SMARTransmission - An Assessment of Footprint Needs



- Initially developed eight proposed alternatives:
  - One all 345kV
  - Two combination 345kV and 765kV
  - Five 765kV

# Collaboration at Work

## SMART Transmission<sup>SM</sup>





ELECTRIC TRANSMISSION AMERICA, LLC

**Follow up / Questions**