Transmission Siting – How Should it work, and How Do We Succeed in Today’s World??

Lisa Barton – Vice President
Transmission Strategy & Business Development
American Electric Power
Tell you a little bit about AEP and what we see as the major issues related to transmission development, including siting as a barrier…

Discuss key principles to developing & implementing a strategic outreach plan for siting transmission…

Review a relevant case study
- Wyoming-Jacksons Ferry 765 kV project EHV transmission line

Review results of outreach strategy…
American Electric Power

- 5.1 million customers in 11 states.
- Largest Transmission Owner in the US with 2,100 miles 765kV

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<thead>
<tr>
<th>Asset</th>
<th>Size</th>
<th>Industry Rank</th>
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<tbody>
<tr>
<td>Domestic Generation</td>
<td>~38,400 MW</td>
<td>#2</td>
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<tr>
<td>Transmission</td>
<td>~39,000 miles</td>
<td>#1</td>
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<tr>
<td>Distribution</td>
<td>~208,000 miles</td>
<td>#1</td>
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<th>Generation</th>
<th>Transmission</th>
<th>Distribution</th>
<th>Customers</th>
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<tr>
<td>Environmental Projects</td>
<td>I-765™</td>
<td>Distribution automation</td>
<td>Customer programs and incentives</td>
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<tr>
<td>Wind</td>
<td>Electric Transmission Texas JV</td>
<td>Self-healing distribution circuits</td>
<td>Energy efficiency</td>
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<td>IGCC</td>
<td>Electric Transmission America JV</td>
<td>Advanced metering</td>
<td>Direct load control</td>
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<td>Carbon Capture &amp; Storage</td>
<td>AEP-ABB Alliance</td>
<td>Communications infrastructure</td>
<td>Peak demand reduction</td>
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<td>Mobile workforce</td>
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<td>Internal energy efficiency</td>
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<td>Integration platform for advanced visualization and analytics</td>
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<td>Distributed generation and energy storage</td>
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gridSMART™: bridging the gap to provide integrated two-way communications & control across the electricity value chain

Existing generation and transmission control systems

Home energy automation
Vision of The Next Interstate: EHV Transmission

*AC-DC-C ties optional
Barriers To Transmission Development

The “Three Horsemen”

- **Planning**: How do we plan expansion of the grid in a coordinated way, with the kind of vision that led President Eisenhower to propose our interstate highway?

- **Siting**: How do we site needed transmission on an expedited basis to ensure that the necessary infrastructure is developed to support inevitable changes to our supply portfolio?

- **Cost Allocation**: How do we keep the 300 pond elephant – who pays for this???? – from derailing necessary infrastructure development?

“We need a true nationwide transmission version of our interstate highway system; a grid of extra-high voltage backbone transmission lines reaching out to remote resources and overlaying, reinforcing, and tying together the existing grid in each interconnection to an extent never before seen.”

Suedeen Kelly—Commissioner FERC
“What got us here won’t get us there”

- Currently, siting authority rests with a myriad of bodies at the local, state, regional and federals levels,
- While FERC has “backstop” siting authority in certain cases, that authority is largely untested and needs to be strengthened to ensure that the necessary EHV backbone transmission infrastructure gets built.
- AEP’s last major 765kV project – Jackson’s Ferry/Wyoming took 16+ years to permit and 1 & ½ years to build. Clearly, this paradigm will not work.
- AEP believes that federal siting – especially for EHV backbone transmission infrastructure is the only means of ensuring that critical infrastructure gets developed.
While we clearly need to change the siting paradigm – especially for EHV Backbone Transmission – for now, we must operate (and Succeed) within the present system.
Transmission Siting: Key Outreach Principles…

- “Do the research” – don’t assume to know the issues and/or the scope of the public’s questions and/or concerns. Research is an ongoing – not one time – exercise.

- Develop a flexible plan – be strategic, proactive and consistent. Need to consider multiple issue areas.

- “Keep it simple” – honesty, transparency and a respectful attitude are critical. Credibility takes years to build and only seconds to lose, and once it’s gone……..

- Remember that people want information – if you’re not providing it, they will take it from where they can get it, including sources of propaganda.

- Keep feedback loops open and flowing – transmission siting is a long process and continually incorporating feedback into the outreach strategy is critical.
Wyoming-Jacksons ‘Ferry 765 kV
Wyoming-Jacksons Ferry 765 kV
Jacksons Ferry/Wyoming Survey highlights....

- Concerns – personal property impacts, viewsheds, perceived lack of local benefit, wildlife, health, tourism
- Media – preference TV, then papers
- Supporters – men, seniors, higher and lower income brackets
- Opponents – women, younger, college educated
- Population – 25% didn’t complete hs, 42% hs grad, 15% percent college grad
- Average Household income - $21,000
- Perceptions – 2/3 viewed AEP favorably
Jacksons Ferry/Wyoming Messaging Highlights....

Key Messages did not change
(1996-2006, surveys confirmed importance of issues)

- Power line is needed urgently and will deliver substantial local and regional benefits (Infrastructure drives economy, both near and longer term)
- AEP treats people, environment with respect – important message, but must be supported through consistent action.
- AEP demonstrated commitment to working with the public, regulators to solve the problem – input is key to the final product and stakeholders must feel vested in the outcome...
Established employee ambassadors, provided front line employees with information.

Coalition established, supporters – labor, business - were kept informed and were active.

Key audiences identified – elected officials, customers, shareholders, unions, media, public, supporters, employees, retirees, etc.

Tools – videos, presentations, fact sheets, brochures, direct mail, advertising, news releases, letters, project info line and web site.

Tailored every message for every audience.
Jacksons Ferry Wyoming Execution Highlights....

- Advertising – Consistent and frequent use of print/television
  - partners included Wild Turkey Federation, Nature Conservancy, local industry, homeowners)

- Media –
  - More than 200 stories a year in project area – consistency and frequency of message – remember; people have a need for information!

- Establishment of web and phone based information and continual reminders of the availability of those services.
1999: Two routes on the table, W.Va., ruled, Va. hadn’t. Public opposition at 33 percent,
- 57 percent of Bland County opposed to the project

Between 2000-2004: Opposition steadily declined. By 2004 public opposition was 11 percent.
- 16 percent of Bland County opposed. 41 percent support.

2002-2004: 60 percent surveyed felt the line was an “acceptable solution to the region’s electric needs”
Project perceptions

![Bar chart showing project perceptions from 1992 to 2004. The chart compares the number of people who oppose, support, or have no opinion (DK/DC) for each year.]
The Outcome

- May 2006 Dedication Ceremony drew two governors, FERC chairman, House Energy and Commerce committee chair

- AEP recognized for innovation, working with the public, dedication to customers and persistence

- Energized June 2006!