Challenges to Building Transmission Facilities Where and When Needed: Siting and Permitting Issues

DOE Public Workshop

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In order to construct new transmission facilities or to significantly upgrade existing facilities in the U.S. electricity system, developers typically need approval from several state and federal agencies. This process has, in recent years, become protracted and difficult. The difficulty is hardly surprising given that transmission facilities are highly visible structures that may span long distances and must somehow fit into physical surroundings that are already in use for other purposes. Incorporating these facilities into the landscape and taking fair account of the wide range of legitimate interests affected by them is challenging.

Nevertheless, many observers and participants in the electricity sector now regard transmission siting and permitting procedures as a major reason why the development of new transmission facilities is not keeping up with the need. Critics say that the siting and permitting process has become unnecessarily cumbersome, delay prone, and subject to breakdown. Some observers argue that current state-based regime for managing siting and permitting is not well adapted to the review of proposed large-scale multistate transmission projects that are or may soon be needed to serve regional bulk power markets, perhaps with little benefit to local electricity consumers. Other officials familiar with state processes agree that regulatory processes can and should be improved, while noting that there is also potential to improve the siting and planning practices of transmission owners or other applicants for proposed new facilities.

Given the vital importance of the transmission network, it is essential to the national interest that transmission siting and permitting procedures work for society in practical terms. That is, these procedures must lead to timely decisions by appropriate agencies about whether proposed facilities would serve the public interest, and to timely approval of routes or sites for facilities that are deemed necessary. This paper examines current siting and permitting practices and ways to improve them. Specifically, the paper:

- Examines existing government and industry practices related to siting and permitting,
EWITS Scenario 1
How will long HVDC projects be completed?
EWITS Scenario 2
EWITS Scenario 4
Clean Line Plains & Eastern

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<th>KEY</th>
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<tbody>
<tr>
<td>AC Collection system</td>
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<td>HVDC transmission line</td>
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<td>Existing utilities' AC system</td>
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<td>AC/DC Converter station</td>
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This map is intended for illustration purposes only and does not represent a proposed route.
Ultra-high-voltage direct-current projects in China

Operating line
Planned line
Population density, 2015 (est)

Sources: State Grid; Centre for International Earth Science Information Network

Economist.com
State Siting Bodies and Regional Projects

- Well-positioned to make judgments
  - Questions persist about willingness to consider regional and national benefits
- Distribution of Benefits
- Incumbents and Independents
- Comity among States
Public Engagement

- On-going efforts to inform the public or at least its opinion leaders
- There is not enough engagement…
  - To overcome fundamental mistrust of institutions and motives
About RAP

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