

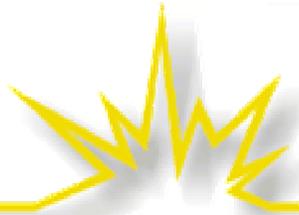
Data Needs for Electric Transmission Planning and Siting

Workshop on Designating Electric Transmission Bottlenecks

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July 14, 2003

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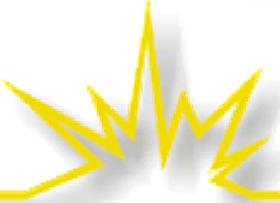


Introduction

Regulatory Assistance Project

RAP is a non-profit organization, formed in 1992, that provides workshops and education assistance to state government officials on electric utility regulation. RAP is funded by the Energy Foundation, the US EPA and the US DOE.

Richard Sedano was Commissioner of the Vermont Department of Public Service, 1991-2001, and presently serves on the Montpelier Planning Commission



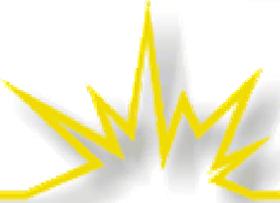
Data: Instruments to addressing grid needs

- Transmission owners should have all relevant data on transmission needs and projects
 - ❖ They are the experts
 - ❖ Ignorance of knowable data is really bad
- Government has important data
- Effective Communication of relevant data is as important as possessing it



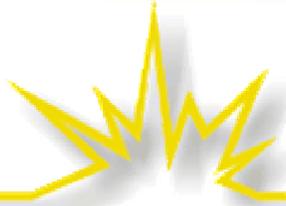
System Data

- Real time operations
 - ❖ Adequacy, Incidence of congestion, out of merit generation
- Short term forecast (volatile, clear drivers of trends, can prompt emergency actions)
- Long term forecast (more stable, trends sometimes clear, sometimes require insight to see changes coming, probabilistic analyses factor in uncertainties)



Planning: What data?

- Disaggregated changes in load
 - ❖ Big loads
 - ❖ Settlement, development patterns
 - ❖ Effect of demand side electric activity
 - ◆ CHP/DG, EE, Demand Response
- Generation Changes (Opportunities)
- Transmission Changes



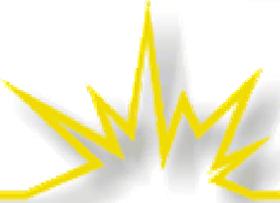
Affect of Markets

- No central control to plan grid changes
 - ❖ Significant uncertainty
- Planning Rules compensate (not perfect)
 - ❖ Reasonable expectations of developers of generation and transmission
- Demand resources aid managing uncertainty
 - ❖ Partnership between system operator and local utilities is important



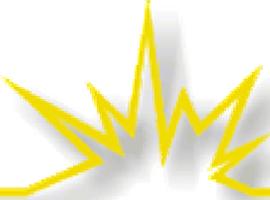
Siting: What Data?

- Existing rights of way locations (aerials/elevations)
 - ❖ And places with significant visual resources and other stoppers and hardships
- Timing of need
- Community awareness of need
 - ❖ Focus on opinion leaders in counties, cities and towns; and newspapers
- Alternatives to solve a grid concern
 - ❖ Siting
 - ❖ Non-transmission
 - ❖ Natural Gas supply



State Responsibilities

- Identification of significant visual resources
 - ❖ Not in utility job description
- Independent planning
 - ❖ hopefully verifying grid concern
- Siting application that elicits relevant data
- Enable non-transmission alternatives



Federal Responsibilities

- Federal land managers must engage
 - ❖ Contribute to identifying reasonable routes
 - ❖ Reasonable expectation for significant notice recognizing their process requirements



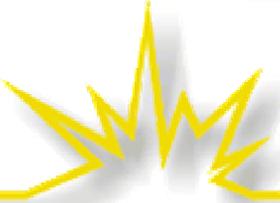
Institutional Challenges for Regional Projects

- Regional system operator very useful in highlighting regional needs
 - ❖ Data exists anyway, processed differently
- Communication needed to apprise states of more complex need assessment
- RSC/MSE useful in applying public policy layer to regional assessment
 - ❖ Can also provide process solutions
 - ❖ Reason with impact-heavy states



Parting Words

- Planning early
 - ❖ Inclusiveness for stakeholders and options
- Planning consistently
 - ❖ Transparency
- Communicating consistently
 - ❖ Encourage policymakers to apply their prerogatives consistent with utility mission
- Management Goal: No surprises



Thanks for your attention

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❖ RAP Mission: *RAP is committed to fostering regulatory policies for the electric industry that encourage economic efficiency, protect environmental quality, assure system reliability, and allocate system benefits fairly to all customers.*