Electricity Transmission: A Primer

NARUC Committee on Energy Resources and the Environment
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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.

Transmission: What Do We Need to Know about It?

- How did we get the system we have?
- What does it do and why is it important?
- How do we pay for it?
- How is it built?
- Who owns and operates it and who oversees them? (a scorecard to follow the action)
- What can states do to influence it?
Electricity Transmission: A Primer

- A project of RAP and the National Council on Electric Policy
  - Book by principles at RAP (Sedano) and NCSL (Brown)
- Outgrowth of the US DOE National Transmission Grid Study (2002)
- Help policymakers appreciate important elements of transmission in the U.S.
  - Physical, technical, business, policy
- Frame action options to improve system
Accessible

- This is not a book by electrical engineers for electrical engineers
- This is a book by people dedicated to helping policymakers do their jobs better for their constituencies
New Challenges

- This book anticipates new challenges in transmission siting brought on by:
  - Exhaustion of excess capacity
  - Regional energy markets
  - Suburban settlement
  - Viable alternatives and tools to evaluate them
  - Infrequent siting experience in many states
Action Items - 1

- Assign responsibility for transmission siting to one state entity
- Establish a fee structure whereby applicants pay for the costs of the studies required in the siting process
- Enable state siting authorities to collaborate with comparable agencies in other states to review projects that cross state lines
Action Items - 2

- Set a statutory limit for the time allowed to consider a transmission siting application
- Establish clear and complete filing requirements for siting proceedings
- Ensure that the siting authority’s analysis takes into account a “what if” analysis, considering other options to meet a perceived need
Action Items - 3

- Consider providing intervenor funding
- Identify important scenic, ecological, environmental and other resources
- Clarify the definition of need
- Integrate generation and transmission planning; add demand resources
- Include transmission corridors in urban growth plans
Action Items - 4

- Define considerations that can be evaluated and discussed in a transmission siting case
- Integrate the public into consideration of siting proposals
- Impose retail rates that reflect actual cost differences within a service territory to promote sound siting proposals
Action Items - 5

- Coordinate state permitting processes with federal permitting processes
- Examine the interactions between rate caps and rate freezes and investments in transmission
- Address landowner compensation for lands in a new or changed transmission R-O-W
Transmission Siting Initiative

- Overall US DOE project with RAP and National Council on Electric Policy
  - The Primer
  - Siting Workshops
    - Midwest: April 2004
    - Mid-Atlantic: March 2005
  - Sample siting legislation
  - Sample siting administrative rules
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.
Transmission investments are currently needed to meet an increasing electricity demand while enhancing security of supply, promoting competition, and integrating renewable energy. A key issue when assessing the benefits from an expanded grid concerns the valuation of the uncertain cash flows that result from the expansion.