



# The Failures of Transmission Planning and Policy

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# Introduction

- FERC Order 2000 was supposed to invigorate transmission investment, but that hasn't really happened
- Yet, many transmission projects – even those for supposedly “good” causes, e.g., to further renewable resources – are mired in controversy
- In the December 2009 issue of The Electricity Journal, “Public Policy and Private Interests: Why Transmission Planning and Cost-Allocation Methods Continue to Stifle Renewable Energy Policy Goals,” my co-author, Nicolas Puga, and I sought to explain why this was happening

# Our Experience (why are we here?)

- We testified on behalf of the New York Regional Interconnect in a proceeding before the NY Public Service Commission
  - The NYRI developers withdrew their application literally while we were testifying
- We also provided independent analysis of both the proposed TRail and PATH transmission projects for the Virginia State Corporation Commission and West Virginia Public Service Commission, respectively
  - We were asked to independently verify project need and evaluate alternatives
- We have evaluated renewable generation projects and siting in the Southwest, and have extensive experience with CAISO's interconnection process

# Barriers to transmission development 1: FERC

- FERC provides incentives to develop independent transmission, but then penalizes developers because their revenue requirements are higher (this happened with NYRI)
- More recently, FERC sided with CAISO regarding CAISO's allocating transmission interconnection costs to Clipper Wind based on its initial application for firm capacity, even after Clipper changed it to "energy only." Clipper withdrew its project in November
- FERC has punted on supermajority requirements (NYISO)
- FERC cannot seem to address projects designed to increase access to renewables
  - Those projects aren't needed for reliability
  - They are also not going to lead to lower-cost electricity
  - Justification has to be based on other criteria

## Barriers to transmission development 2: Existing transmission owners who control RTOs

- NYISO is a good example of the problem
- NYISO requires a super-majority vote of 80% of LSEs to approve a non-transmission owner proposal
  - ConEd, one such TO, has 21% of the vote. Therefore, ConEd has an effective veto over non-TO projects, in effect ConEd is a “pivotal transmission provider”
- It’s almost impossible to justify a transmission line on pure economics (cost v. benefit), if the line will reduce/eliminate price differentials
- NYISO’s new “Congestion and Resource Integration Study” (CARIS) process requires both cost-benefit muster and a super-majority vote

# NYISO itself stated that, to meet NY RPS mandates, new transmission was needed

- In several “white papers,” NYISO said the state’s RPS requirement could not be met without building new transmission facilities from Upstate NY (UPNY) to Southeast NY (SENY)
- The NY State Energy Plan, authored by the NY DPS, called for more transmission from Upstate NY into SENY
- The NY Legislature voted \$2 million to fund opposition groups to NYRI
- The NY DPS opposed NYRI, said that building gas-fired combined cycle generation was a better alternative for meeting reliability needs
- None of the opponents even addressed the state’s own RPS goals

# Barriers to transmission development 3: RTO cost allocation processes

- Cost-allocation is usually based on one of two principles:
  - Cost-causation or beneficiary pays
- Nothing wrong with either approach in principle, However, in practice, the generation queue process can create winners and losers
- The underlying problem is that transmission/interconnection costs are “lumpy”
  - Example. CAISO determined that two companies seeking to develop wind power in the La Rumorosa area in northern Baja California would have to pay over \$1 billion in network upgrade costs (essentially, having to build a second Sunrise Power Link)
  - Guess what happened to those projects?

# Recent cancellations in CAISO's generation queue

- Over 3,900 MW of wind generation was withdrawn from the CAISO queue between Oct 2009 and Dec 2009
  - All but 125 MW had been listed as “firm capacity”
- About 15,800 MW of proposed solar generation (PV and solar thermal) was withdrawn from the CAISO queue in December 2009 alone
  - About 2/3 was firm capacity
  - The remainder was “energy only”
- If the policy goal is to develop renewable generation, this is an odd way to go about it



# The RTO Planning Process

- “When all you have is a hammer ...”
- RTOs are charged with maintaining reliability, but cannot control development of any generation alternatives
- This was a fundamental part of FERC’s electric restructuring: unbundle transmission, generation, and distribution
  - But in doing so, FERC introduced an inherent bias towards transmission solutions
  - That bias drives RTO planning efforts, such as PJM’s analysis of the need for the TRaiL and PATH projects
- FERC has also made things worse by insisting that RTO’s equate generation with demand response for capacity planning purposes
  - Yet, DR does not have to meet the same requirements

## Renewables policy is governed by a “do something” approach, economics and engineering are ill-considered

- Ideally, we would analyze whether the benefits of RPS mandates exceed their costs
  - This would require identifying what RPS mandates are supposed to achieve: reductions in GHGs? Reduced price volatility? “Green” jobs?
- Failing that, how about identifying least-cost ways of meeting imposed RPS requirements?
- Treat “least-cost” RPS resource reliability and deliverability network upgrades costs as public goods
  - Allocate the costs to all consumers within the RTO
- Should RTO’s be allowed to bid out construction and operation of generating plants so they can “control” generating resources?

**“Politics is the art of looking for trouble, finding it everywhere, diagnosing it incorrectly, and applying the wrong remedies.” – Groucho Marx**

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