

TRANSMISSION PLANNING AND RESOURCE ADEQUACY: WHAT ROLE SHOULD THE REGULATORY COMMISSIONS PLAY?



2004 NCEMC and Progress Energy Spring Conference
Pinehurst, North Carolina
May 25 – 26, 2005



Thomas L. Blackburn, Esquire
Bruder, Gentile & Marcoux, L.L.P.
1701 Pennsylvania Avenue, N.W.
Suite 900
Washington, D.C. 20006-5805
Telephone: 202/296-1500
Facsimile: 202/296-0627
E-Mail: tblackburn@brudergentile.com

Transmission Adequacy – Federal Oversight



- The FERC currently has very limited authority over transmission adequacy.
- FERC may establish regional districts for the voluntary interconnection and coordination of generation and transmission [§ 202(a) of FPA].
- FERC can order a public utility to interconnect with other transmission systems [§ 202(b) of FPA].
- In response to a complaint by a State Commission, the FERC can order a public utility to provide “adequate service” [§ 207 of FPA].

Energy Legislation on Federal Oversight of Transmission Capacity



- The House and Senate versions of the legislation are very similar.
- The Secretary of Energy will conduct a study of transmission congestion every three years.
- The Secretary may designate as a national interest electric transmission corridor any area with transmission capacity constraints or congestion if:
 - ✓ economic vitality may be constrained by lack of adequate or reasonably priced electricity; and
 - ✓ economic growth or end markets may be jeopardized by reliance on limited energy sources and diversification of supply is warranted; and
 - ✓ energy independence of the U.S. would be enhanced; and
 - ✓ the designation would be in the interest of national energy policy; and
 - ✓ the designation would enhance national defense and homeland security.

Federal Legislation – Construction Permits



- The FERC may issue a permit for construction or modification of transmission facilities in a national interest electric transmission corridor if:
 - ✓ the state is without authority to approve the siting or to consider the interstate benefits; or
 - ✓ the applicant is a transmitting entity but it does not qualify for state siting approval because it does not serve end users; or
 - ✓ the State Commission has either (i) withheld siting approval for more than one year after the later of the request for approval or the designation of a national interest electric transmission corridor; or (ii) has conditioned approval in a way that the facility will not significantly relieve congestion or is not economically feasible.

Federal Legislation – Additional Requirements For Federal Construction Permits



- The facilities must be used for transmission in interstate commerce.
- The construction must be consistent with the public interest.
- The construction must significantly reduce congestion and protect or benefit consumers.
- The construction must be consistent with sound energy policy.

Federal Legislation – Expediting Transmission Construction



- If an applicant for a federal transmission permit cannot obtain the right of way by contract it may do so by eminent domain in Federal Court.
- On request, DOE will serve as the lead agency for coordinating all federal authorities and environmental reviews.
- DOE must ensure that all reviews and decisions are completed within one year after the submission of the application.
- Regulations must be issued within 18 months of the enactment of the legislation.

Federal Legislation – Regional Planning



- DOE must consult with FERC, reliability organizations, RTOs and ISOs.
- If 3 or more contiguous states enter into an interstate compact establishing a regional transmission siting agency, the FERC cannot issue a transmission construction permit unless the states are in disagreement.

Regional Transmission Planning – SERC



- The Southeastern Electric Reliability Council is the Regional Reliability Council of NERC that includes the Carolinas.
- SERC is responsible for promoting, coordinating and ensuring the reliability and adequacy of the bulk power supply systems.
- SERC promotes reliability and adequacy arrangements, participates in the establishment of reliability policies and administers a compliance and enforcement program.

Regional Transmission Planning – VACAR



- VACAR was established by the Virginia-Carolinas Reliability Agreement.
- VACAR is one of the four sub-regions of SERC.
- VACAR conducts studies of transmission reliability and adequacy and provides input to SERC.

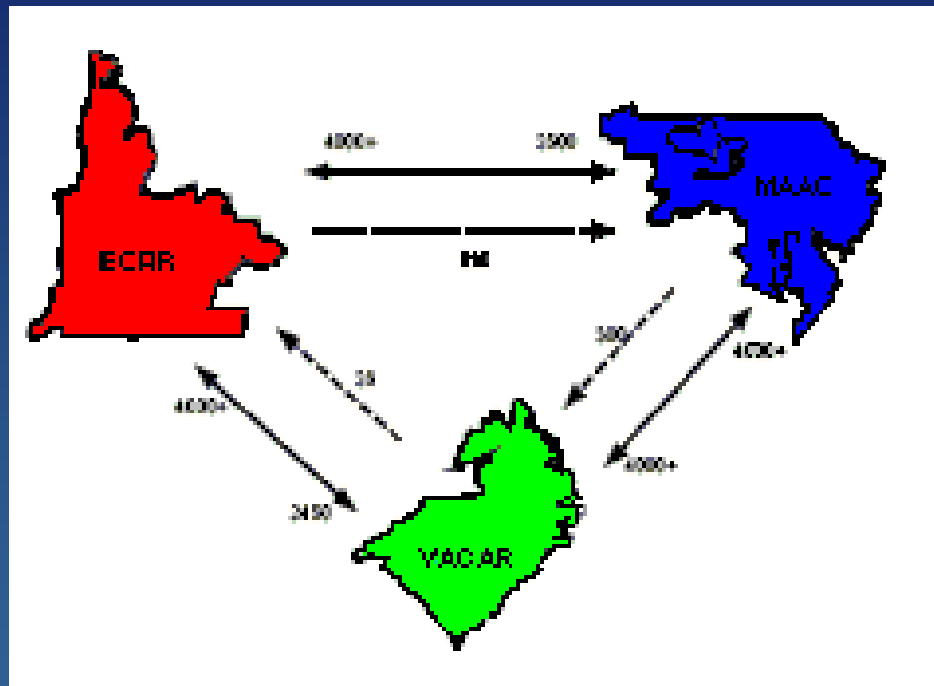
Regional Transmission Planning – VST and VSTE



- VACAR, Southern and TVA historically conducted assessments of the adequacy and reliability of their systems.
- After Entergy joined SERC, the group was expanded to include it.
- The VSTE Agreement provides for the parties to engage in joint planning within SERC, but in a larger region than just VACAR.

Regional Transmission Planning – VEM

- VACAR, ECAR and MAAC have engaged in inter-regional reliability assessments.



- Planning with those regions, which include AEP and PJM, is critical given the volume of power flows between the regions.

Regional Transmission Planning – MMWG



- The Multi-regional Model Working Group consists of representatives from each regional reliability council in the Eastern Interconnection, plus liaison representatives from ERCOT and WSCC.
- The MMWG is responsible for developing a library of power flow models for use in planning and evaluating future systems and current operating conditions.

FERC Transmission Initiatives



- In January 2003 FERC proposed to give incentives to utilities that construct transmission pursuant to RTO planning processes.
- FERC held a technical conference on transmission investment in April 2005 to examine impediments to investment and explore potential solutions, including ratemaking incentives.
- FERC clearly intends to push hard for more transmission investment. It is likely that FERC will adopt a new policy that will provide more incentives to invest in transmission.

Transmission Investment: 1990 – 1999



- For several years, FERC and industry analysts have raised concerns that transmission investment was not adequate to replace existing facilities – that net transmission plant was declining – and that it should be increasing.
- The problems of inadequate transmission investment are substantially exacerbated by the need for more transmission to accommodate the “regionalization” of electric service: RTO formation and the need to gain access to economic generation.

Transmission Investment: 1999 – 2008



- In 1999 – 2003, transmission investment increased at a rate of 12% per year.
- In 2005, transmission investment is expected to be 24% higher than in 2004.
- Transmission investment in 2008 is expected to be 2.3 times higher than in 1999: \$6 billion, as compared to \$2.6 billion.

Transmission Siting and Construction – Progress and Santee Cooper



- New generation at a Santee Cooper plant may affect power flows on Progress transmission facilities.
- Progress is currently engaged in a joint study with Santee Cooper that will address reliability issues and interconnections.
- Rather than address the issue in an adversarial proceeding, Progress and Santee Cooper are working together to create a win-win scenario.

Transmission Siting and Construction – North Carolina LSEs' Planning Participation Agreement

- The NCUC facilitated a review of the adequacy of the transmission infrastructure by Progress, Duke, NCEMC and Electricities.
- The North Carolina Load Serving Entities' Planning Participation Agreement was executed on May 20, 2005.
- The Agreement provides for all LSEs in North Carolina to participate in transmission planning. It was executed by all four participants in the NCUC's review.



Objectives of the Participation Agreement



- Assist the NCUC in fulfilling its responsibilities to develop long range plans for electricity to serve North Carolina.
- Develop a collaborative process for transmission planning by the signatories that allows all LSEs in North Carolina to participate.
- Expand planning to include increased import capability to improve access to generation outside the region.
- Develop a single coordinated transmission expansion plan.

Generation Adequacy – Current Law



- FERC does not have jurisdiction over generating facilities except as explicitly provided [§ 201(b)(1) of FPA].
- FERC cannot order the enlargement of generating facilities in conjunction with:
 - ✓ Interconnection of transmission systems [§ 202(a) of FPA].
 - ✓ Requiring the provision of adequate service [§ 207 of FPA].

Generation Adequacy – FERC Oversight



- FERC traditionally relied on state commissions to ensure resource adequacy.
- With the boom in independent generation, many at FERC and the industry asserted that generating capacity was irrelevant and should not be compensated; short run and long run marginal cost signals and market based rates would provide adequate incentives to construct new generation.
- The market meltdown in California, which was caused in part by excessive reliance on the spot market, caused a massive rethinking of this approach.

Generation Adequacy – Standard Market Design



- In the Standard Market Design proposed rulemaking, FERC proposed to impose a Resource Adequacy requirement on utilities.
- FERC proposed a minimum 12% planning reserve margin, with penalties for utilities that failed to meet the requirement.
- FERC stated that spot prices will not signal the need to construct new generation in time to avert shortages.

Generation Adequacy – Standard Market Design continued



- FERC also was concerned about “free riders,” who rely on others to maintain reserves in regions with retail competition.
- The implication is that concern with respect to ensuring resource adequacy arises when utilities no longer have an obligation to serve as a result of retail choice.
- FERC’s proposal to impose resource adequacy requirements sparked a huge outcry from utilities and state commissions.

Generation Adequacy – California ISO



- In ruling on the California ISO proposal, FERC expressed concern that it lacked a resource adequacy element.
- FERC called resource adequacy a critical element of any market design.
- CAISO reported that the California PUC was addressing resource adequacy.

Generation Adequacy – Midwest ISO



- FERC approved MISO's proposal for a 12% default reserve margin on an interim basis. It would apply only in the absence of a state requirement.
- FERC emphasized that the requirement would not require utilities to adopt higher reserve margins than the state requires.
- FERC required MISO to develop a long-term resource adequacy plan. MISO will make its filing by June 6, 2006.

Generation Adequacy in North Carolina



- Progress incorporates the load forecasts of its wholesale customers into its system-wide forecast.
- The Company maintains a capacity margin of 11-13%, which is equivalent to planning reserves of about 13-15%.
- Progress' load and resource plan is reviewed and approved by the North Carolina Utilities Commission.
- Is FERC oversight needed?

Generation – Fuel Diversity



- On May 13, FERC held a conference in West Virginia promoting regional transmission planning and expansion to promote fuel diversity, including expanded uses of coal-fired generation.
- Chairman Wood emphasized the need to develop domestic energy supplies to ensure economic reliable power supply.
- Once again FERC has felt the need to become involved in an area in which it previously was uninvolved.
- Is FERC's involvement necessary?