Enhancing the Nation's Electricity Delivery System

Transmission System Needs
By
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Transmission System Planning in the Upper Midwest Is Adapting to Change

- Pre-RTO era planning coordination among utilities was effective and continues in modified function.
- Open access and functional separation of transmission and generation operations has added uncertainty in planning assumptions, but planners are learning adaptive strategies.
- State regulators are having to re-evaluate their roles in planning.

Roles of Participants in Planning

Local Utilities

- Know their systems, and their neighbors' systems
- Have the best view of probable developments in their area
- In best position to do bottom-up planning for subregional needs.

RTO's

 MISO focuses on reliability, operational efficiencies and fairness, and does top-down planning.

FERC

 Where RTO's are effective, planning role should be limited

Roles of Participants Con't

State Commissions

- Should ensure state policies are well-fitted to local utility and RTO planning.
- Balance needs of customers with changing grid dynamics and uses.

A Minnesota Initiative May Have Promise as a Model

- CAPital eXpenditure 2020 Initiative or "CAPX 2020"
 - Minnesota's major electric utilities—a coalition of IOU's, cooperatives, and municipals—have undertaken a voluntary, statewide effort to plan the next generation of high voltage transmission development.

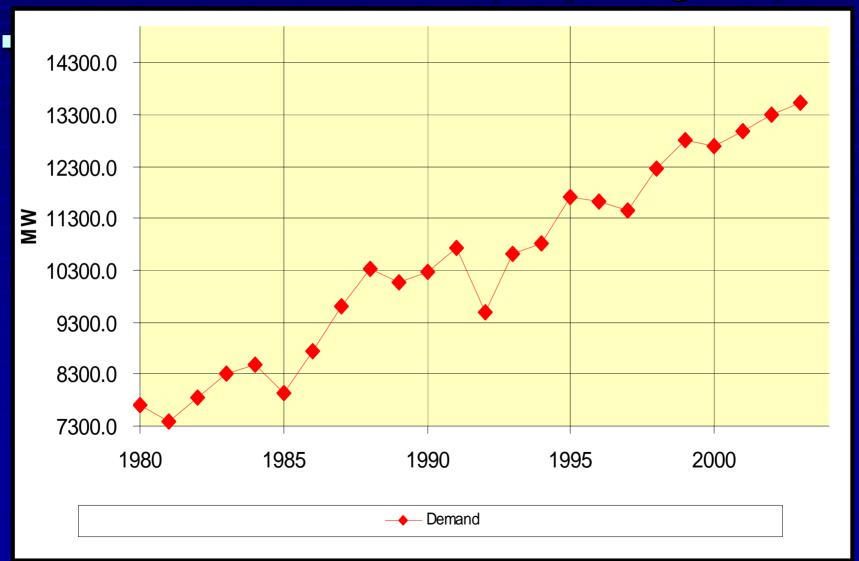
CAPX 2020

- Formed Spring 2004
- Eight Minnesota utility partners
- Focused on serving growing load in service territories; generation outlet, reliability, market efficiency
- Collaborative effort; utilities, regulators, legislators, and other stakeholders

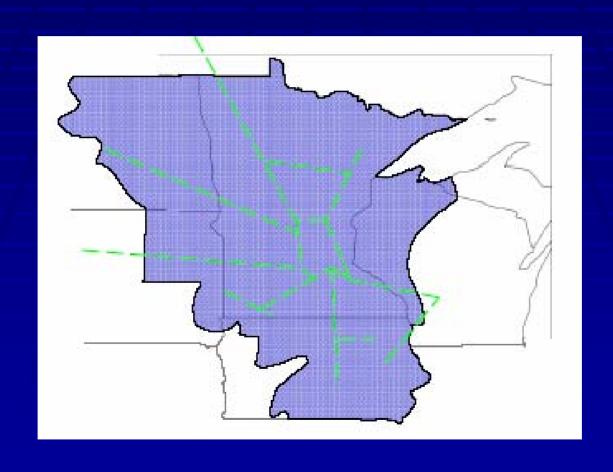
CAPX Vision Study Completed

- 15 year high level plan
- Integrated multiple planning studies
- Detailed studies completed on first anticipated projects
- Established by timing and priority of needs
- Forecast of capital investment—consolidated for all project groups
- \$2.3 Billion portfolio of high voltage (> 200kV) transmission assets to be built in the Minnesota region by 2020.

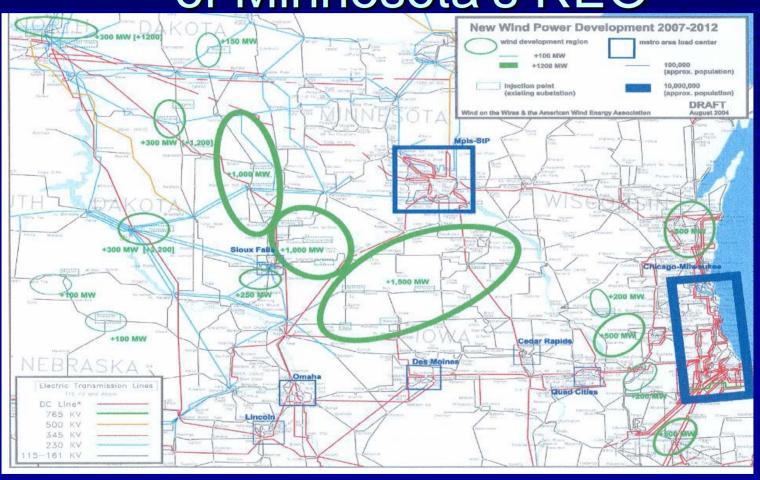
Forecasted capital Investment – Consolidated for all project groups



Transmission concept plan



CapX plans accommodate 2400 MW of wind generation in support of Minnesota's REO



Energy Efficiency, Conservation and Demand Response Programs

- Effective Transmission Planning at Local and Regional Levels Should Preserve and Expand Recognition of Conservation and Load Management Goals
 - Communication about how this is to be accomplished will be important to all stakeholders.
 - States will want to preserve their ability to apply as needed.

Regional Coordination and Conservation-The Difficult Questions

- How and to what objective should conservation be addressed?
- Do we need a real conservation goal and compliance showings that elevate conservation beyond "lip-service"?
- Is conservation a real and discreet alternative in transmission planning or are planners simply looking at load growth and reliability?
- Can states in a region, on their own initiative or through an RTO such as MISO, agree on a goal that makes sense to the public who would challenge land takings for transmission projects?
- Will federal policymakers and regulators force states in our region into a catch-22, compelling us to stand down public opposition to economic projects or default to federal backstop authority.?

How should EE, Conservation and Demand Response be included in the decision-making process of Regional and Local Planning?

- The more aggressive state policies in a region will set the tone; however an RTOwide goal may be appropriate.
- Goals and achievements will vary over time subject to many variables and need to be designed into planning models.
- Will be a challenge, but can become a focus of public debate about proposed new facilities, and must be addressed.

Regulatory Commission Cooperation in Development Regional Transmission Plans

- The Organization of MISO States has built an excellent model for state coordination.
- The Midwest Governor's Association has adopted a protocol that commits signatory states to further improvements in coordination and cooperation in interstate transmission planning and permitting
- States, including MN have responded to regional grid realities by achieving legislative support for certification criteria that recognize regional benefits of transmission development

Does EPACT 2005 Help or Hinder Grid Planning?

- The reliability provision will help define critical planning parameters
- Unclear how investment incentives will impact planning.
- Congestion study and listing of National Interest Transmission Corridors useful; subsequent possible pre-emption of state authority raises concerns.
- Still reviewing implications of other provisions.

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