

CapX2020



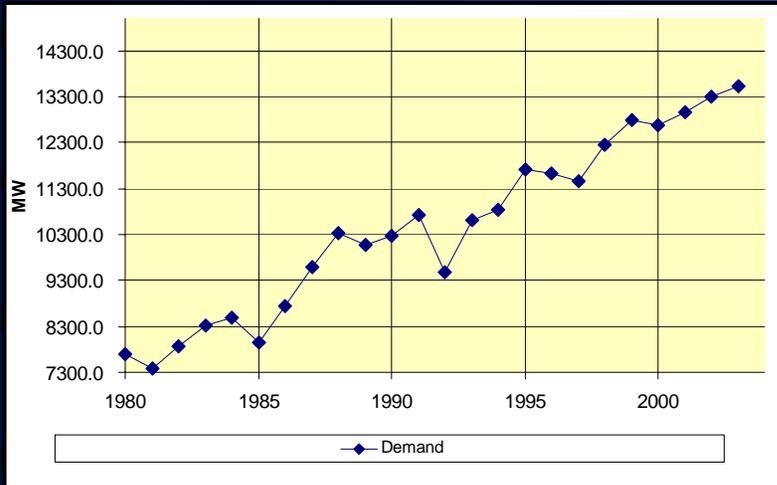
Delivering electricity you can rely on

CapX2020 Transmission Initiative

Meeting Transmission Needs in the Upper Midwest Region

Laura McCarten, Xcel Energy,
Co-Executive Director CapX 2020

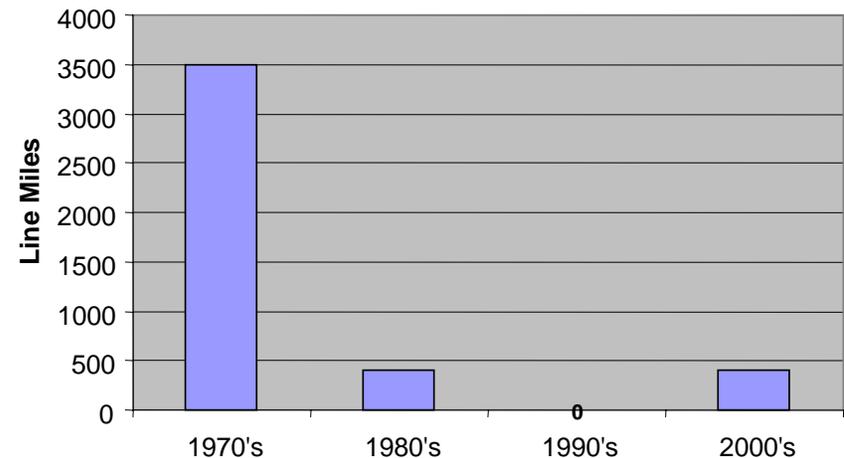
Upper Midwest - Load Growth Has Out Paced Transmission Investment



Regional electric use has grown by 80% since the early 1980's

The last significant addition to the regional high voltage transmission system occurred in the 1970's

Upper Midwest High Voltage Transmission Projects



Regional Utilities Began Work on Long Term Plan in 2004

- Highly interconnected system, long history of joint planning
- Develop integrated, flexible, long-term “vision” of expansion needed over 15 years
- Build on existing sub-regional planning studies and results
- Engage policymakers, regulators
- Seek enhanced regulatory review and cost treatment

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Transmission Capacity Expansion by 2020

- Formed to address potential reliability problems with transmission grid
- Alliance of 11 electric cooperatives, municipal and investor-owned utilities
- Serving Minnesota and portions of North and South Dakota and Wisconsin

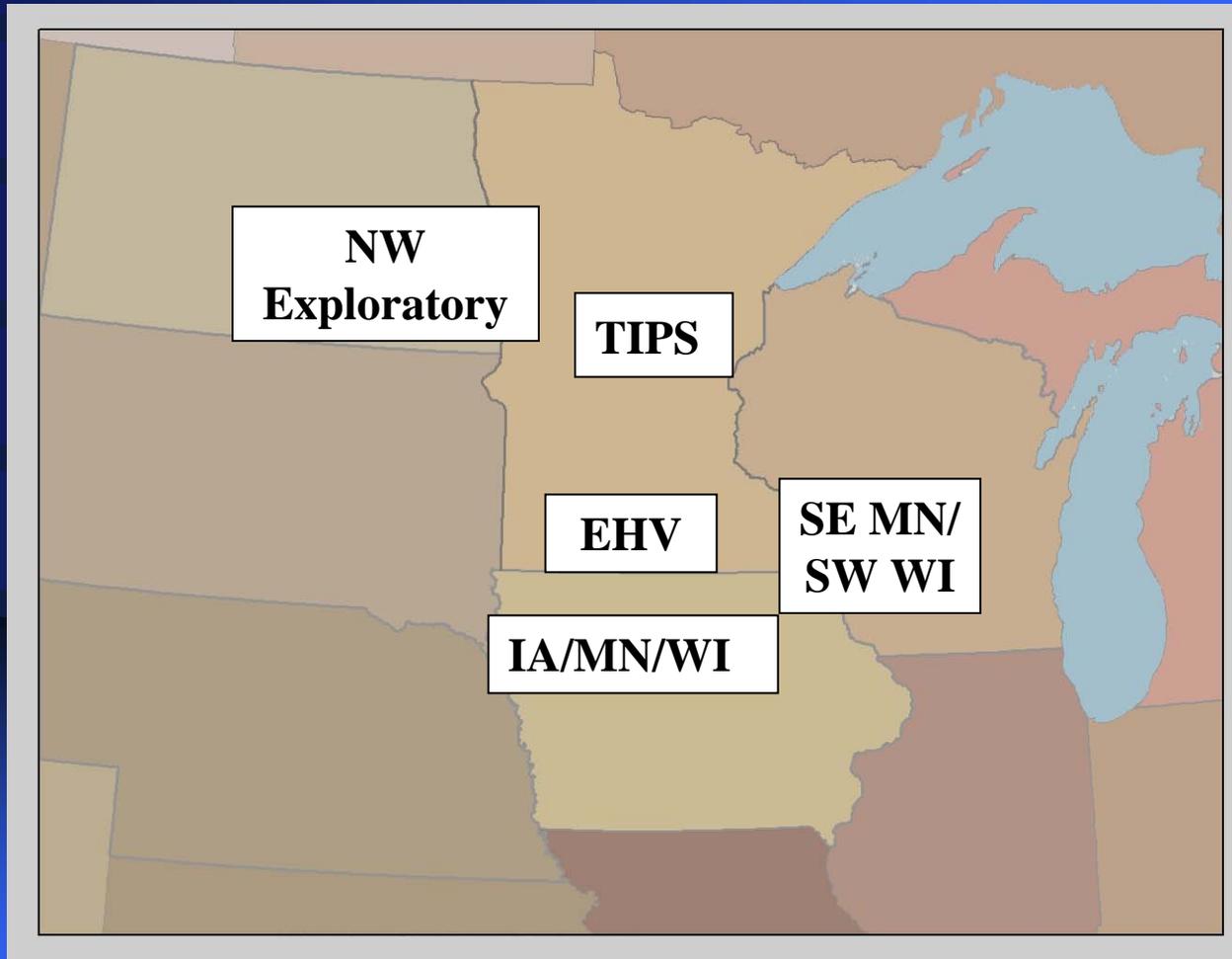
Current Participating Utilities:

- Central Minnesota Municipal Power Agency
- Dairyland Power Cooperative
- Great River Energy
- Minnesota Power
- Minnkota Power Cooperative
- Missouri River Energy Services
- Otter Tail Power Cooperative
- Rochester Public Utilities
- Southern Minnesota Municipal Power Agency
- WPPI Energy
- Xcel Energy

Regional Transmission Study Efforts Shaped CapX2020 Vision Study

- Iowa/Minn/Wisc Study (MISO-led)
- NW Exploratory Study (MISO-led)
 - Increase transfer capacity from North Dakota, South Dakota
- SE Minn/SW Wisc
 - Local reliability needs, system expansion for future needs
- Transmission Improvement Planning Study (TIPS)
 - Address current and future reliability in north-central Minn.
- CapX2020 Vision Study
- EHV Study
 - Generation outlet from SW Minn

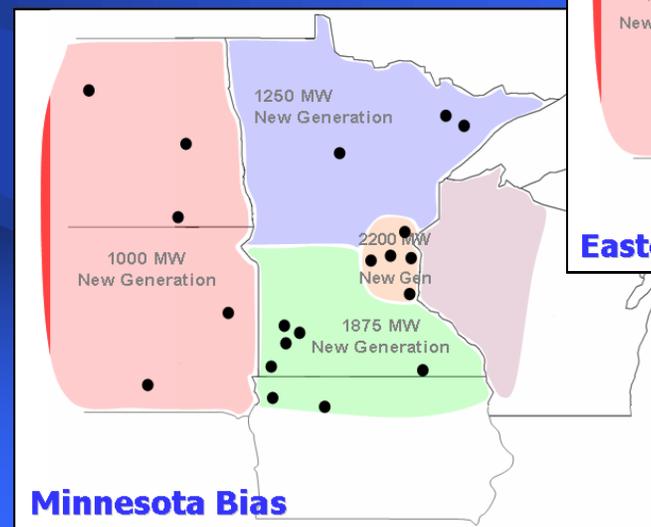
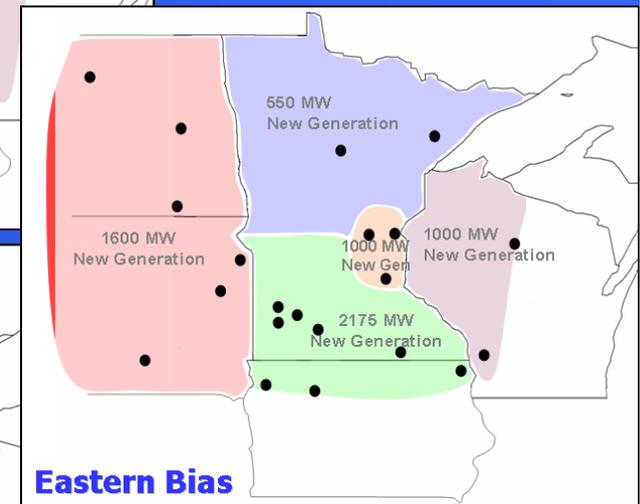
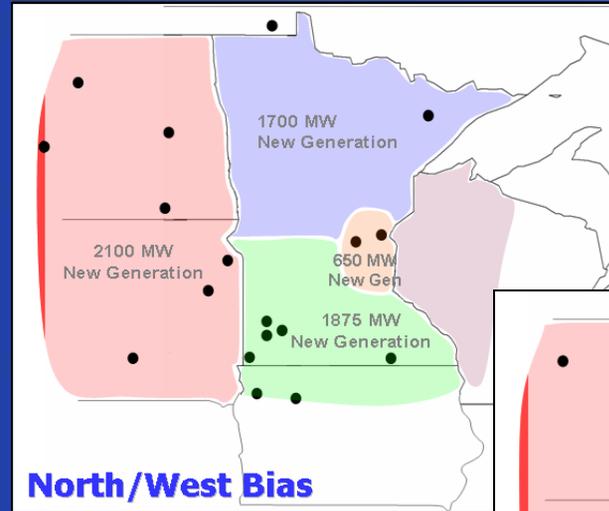
Regional Transmission Study Efforts *From 2004 into Early 2006*



Comprehensive Approach

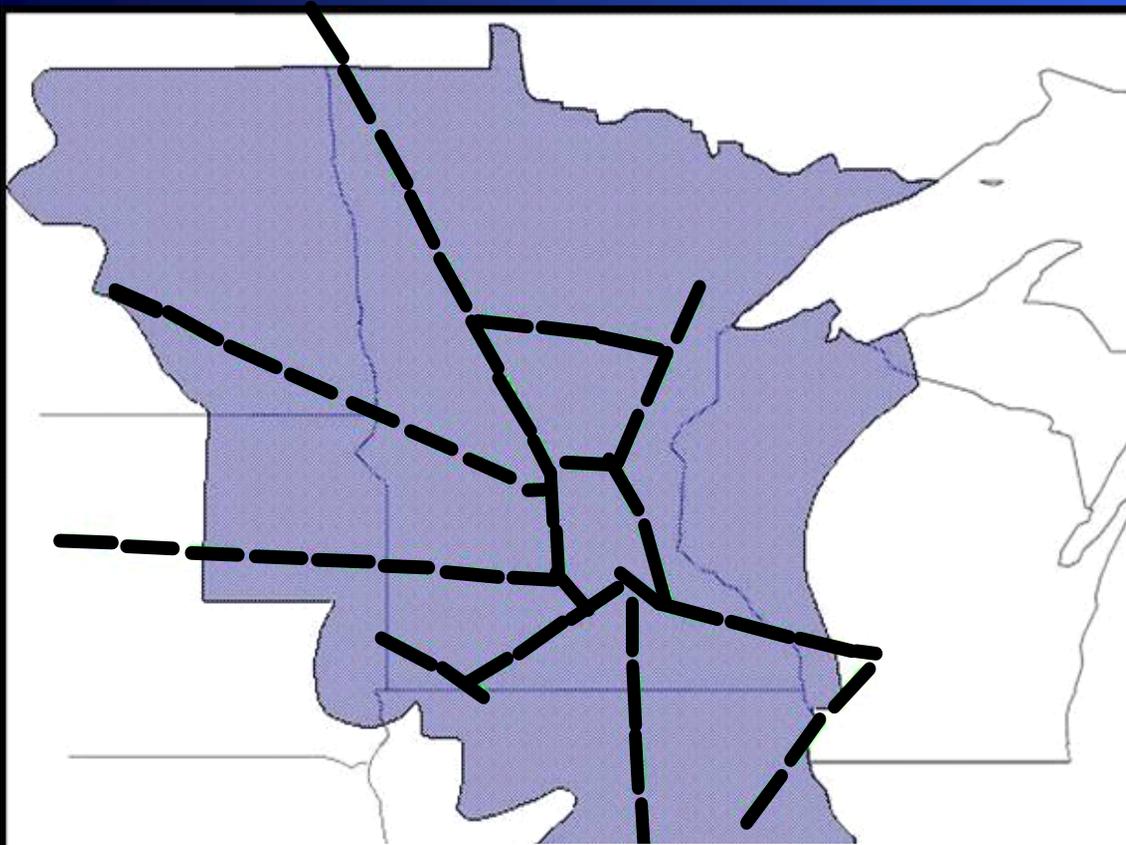
Flexible Transmission Infrastructure Plan

- Incorporated other regional studies
- Modeled three scenarios of future generation locations
- Looked at medium and low forecast of growth



CapX2020 Vision Study (2005)

Regional High Voltage Transmission Need



Indicative expansion plan

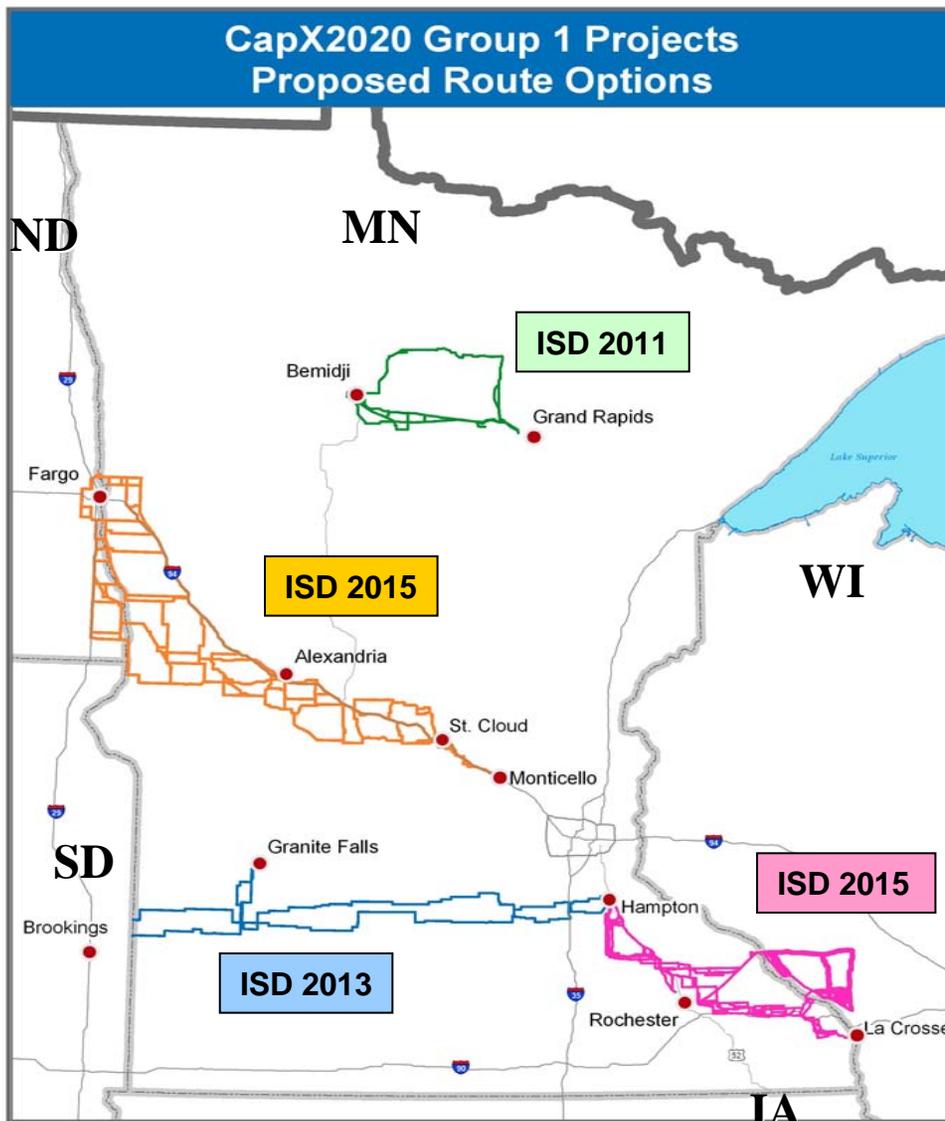
- Key assumptions
 - 4,000 to 6,000 MW growth by 2020
 - RPS of 10%
- Initial projects – Group 1
- Subsequent projects will be driven by growth, generation location, energy policy, etc.

Significant regulatory and legislative changes enacted to enable transmission

- CapX utilities collaboration
- 2005 Minnesota legislative session
 - Transmission rider, earn on CWIP
 - Combine Need and Routing decision authority at PUC
- 2006 South Dakota session
 - Transmission rider, earn on CWIP
- 2007 North Dakota session
 - Transmission rider, earn on CWIP

Group 1 Projects

Needed in all Scenarios, Serve Multiple Purposes



700 miles, 1.7 billion (\$2007)

Xcel Energy approx \$900 M

Fargo, ND-Monticello	250 mi, 345-kV
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Brookings County, SD - Hampton	240 mi, 345-kV
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Hampton-Rochester-La Crosse, WI	150 mi, 345-kV
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Bemidji-Grand Rapids	70 mi, 230-kV
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- Alleviates emerging community service reliability concerns
- Critical foundation for future transmission and generation, including renewables

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Project Investors

Governance of Project Execution

Fargo-Monticello

Xcel Energy
Great River Energy
Missouri River
Minnesota Power
Otter Tail Power

Bemidji-Grand Rapids

Otter Tail Power
Great River Energy
Minnkota
Minnesota Power
Xcel Energy

Brookings- Hampton

Great River
Missouri River
CMMPA
Otter Tail Power
Xcel Energy

Hampton-Rochester- La Crosse

Xcel Energy
SMMPA
RPU
Dairyland Power
WPPI

Company name in bold is Development Manager for that project

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Multi-Utility Networked Organization

Utilities Executive Leaders
(Vision Team, Project
Management Committees)

CapX2020 Staff

Regulatory

Planning

Communications

Standards

Government
Affairs

Agreements

HR

Accounting

Regional and
national
transmission policy
arena

CapX Group 1
Projects

- Project Management
- Routing
- Project
- Communications
- Right-of-Way
- Engineering
- Construction
- Management
- Accounting

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Public Outreach

Priority on Public Participation

- Initial 2007 outreach included:
 - 100+ meetings with local governments, news media, and civic groups
 - Thousands of mailings to landowners, local government officials in broad study corridors
- Ongoing outreach and communications include:
 - 75+ public meetings (open houses, routing work groups)
 - 200,000+ direct mail pieces
- Positive media and public response



Process Overview of MN Certificate of Need (CN) for 345 kV Projects

- Public Notice Plan filed summer 2006
 - Outreach started prior to filing
 - Formal public notice activities began summer 2007
- CN Application filed August 2007
 - Three 345 kV projects; project-specific and common information
 - Largest CN application ever submitted to MN PUC
- CN process
 - Assesses need, alternatives, impacts
 - Decides Size, Timing, Type
- CN application required lengthy preparation effort
 - Massive scope; projects serve multiple needs over long time period
 - Multi-party input: data, reviews, approvals

MPUC Decision on Certificate of Need (CN) for 345 kV Projects

- Contested Case
 - Issues: impact of economic downturn; lower voltage alternatives; use of small-scale distributed generation; renewable vs coal energy
 - Strong support by State Office of Energy Security (customer advocate agency)
- Minnesota CN application approved April 16, 2009
 - Unanimous vote of approval
 - Build all as double circuit capable
 - Brookings project wind conditions
 - Utilities filed Request for Rehearing on wind conditions
 - Other Interveners filed requests to overturn approval

Routing Efforts for 345 kV Projects

- Extensive public input
- Application to MPUC identifies two or more route options for every segment
- MN Route application filings Q4'08 – Q4'09, anticipate decisions within 12-18 months
 - MPUC decides routes
- Coordinating ND, SD and WI state reviews; federal environmental and agency reviews
- Localized opposition is developing as routing options are narrowed

Bemidji-Grand Rapids 230 kV Project

Need and Routing Status

- MN Certificate of Need application March 2008
 - Critical to regional reliability
 - Separate, but coordinated with 345 kV projects CN
 - Uncontested, expect decision summer 2009
- MN Route application filed June 2008
 - MN regulators and Rural Utility Services coordinating on single environmental review
 - Draft EIS: September 2009
 - Decision: Q2 2010
 - Also involves Leach Lake Band of Ojibwa, Chippewa National Forest

Group 1 Projects Implementation

- Developing project agreements (construction, ownership, capacity exchange, etc.)
- Cost Allocation
 - MISO analyses determined Baseline Reliability Project treatment for Fargo, LaCrosse, Bemidji projects
 - Utilities working with MISO and wind developers to develop Brookings-specific solution, because MISO Generator Interconnection tariff isn't a good "fit"
- Integrated approach to resourcing project labor and materials needs
- Ongoing communication and public outreach efforts

CapX2020 is Well Underway in Developing 700 Miles of New High Voltage Transmission

- Efficient, multi-purpose set of projects
- Foundation for future expansion to serve
 - Reliability
 - Customer growth
 - Energy choices
 - Regional and national energy policies
- Beyond Group 1 projects: create a plan that meets intersecting interests of utilities, customers and policy-makers

Thank You !

Questions?

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