

Upper Midwest Transmission Development Initiative

MN/E. Dakotas/W. WI

Transmission Owner Perspective

1/30/09

Transmission Planning Objectives

Reliable

Efficient

Cost Effective

Robust

Well Coordinated

Meet State/Region Energy Policy
Objectives

Meeting Regional Transmission Needs

MN Renewable Energy Standard: 25% by 2025, primarily from wind

Additional 4,000-5,000 MW by 2025



April 2009, blueprint of transmission needed for MN RES 2016 milestone

Future analysis to identify transmission needed for MN RES 2020 and 2025 milestones

Utility led sub-regional analyses

Close MISO coordination (RGOS)

Regional scope, range of choices

Minnesota Transmission Owners

MN utilities are working together to meet the transmission study requirements

Participating Utilities

HCPD

Willmar

GRE

BEPC

RPU

MP

MPC

SMMPA

OTP

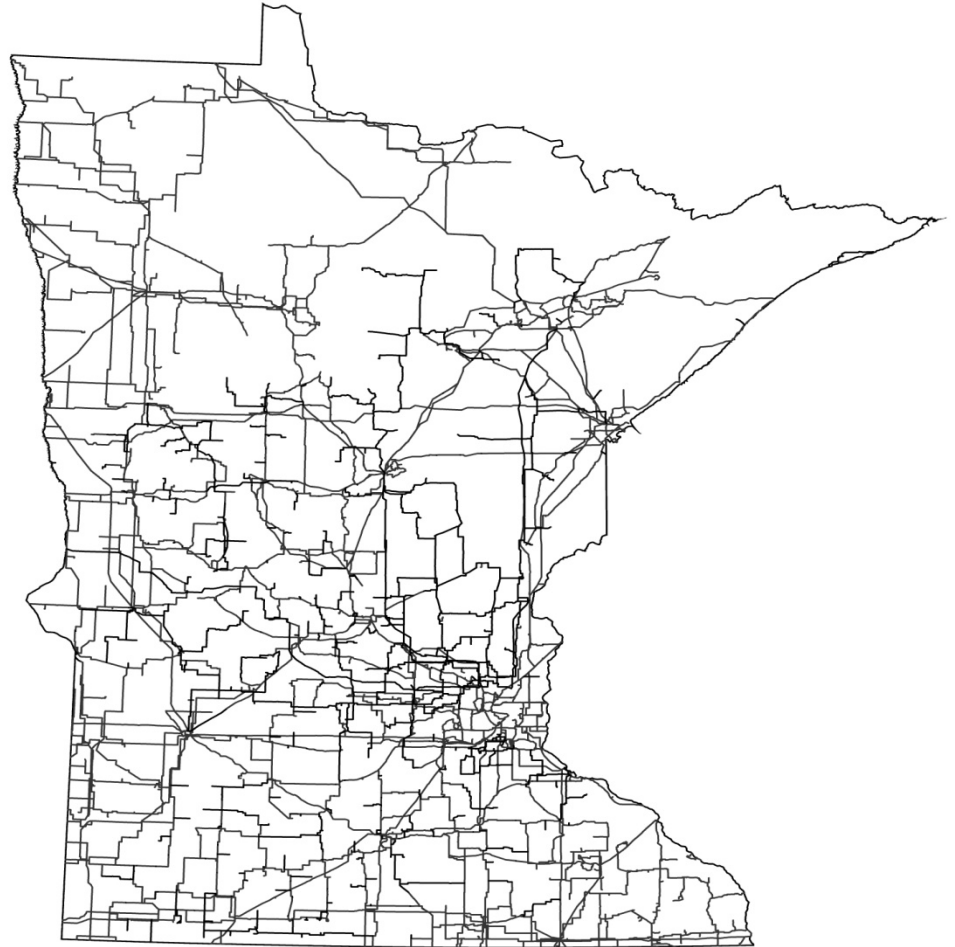
MRES

DPC

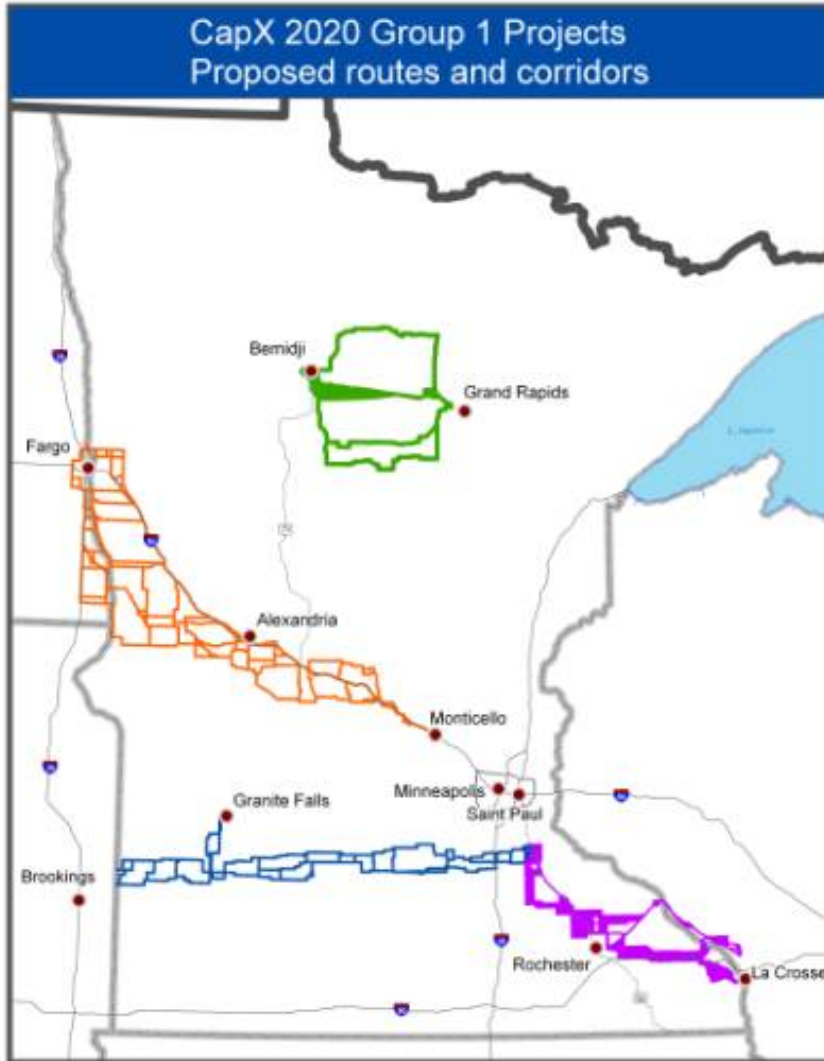
Xcel

ALTW

MMPA



CapX 2020 Group 1 Projects



Project

Fargo ND – Alexandria St. Cloud – Monticello	250 miles	345 kV
Brookings SD – SE Twin Cities	250 miles	345 kV
SE Twin Cities – Rochester La Crosse, WI	150 miles	345 kV
Bemidji – Grand Rapids	68 miles	230 kV

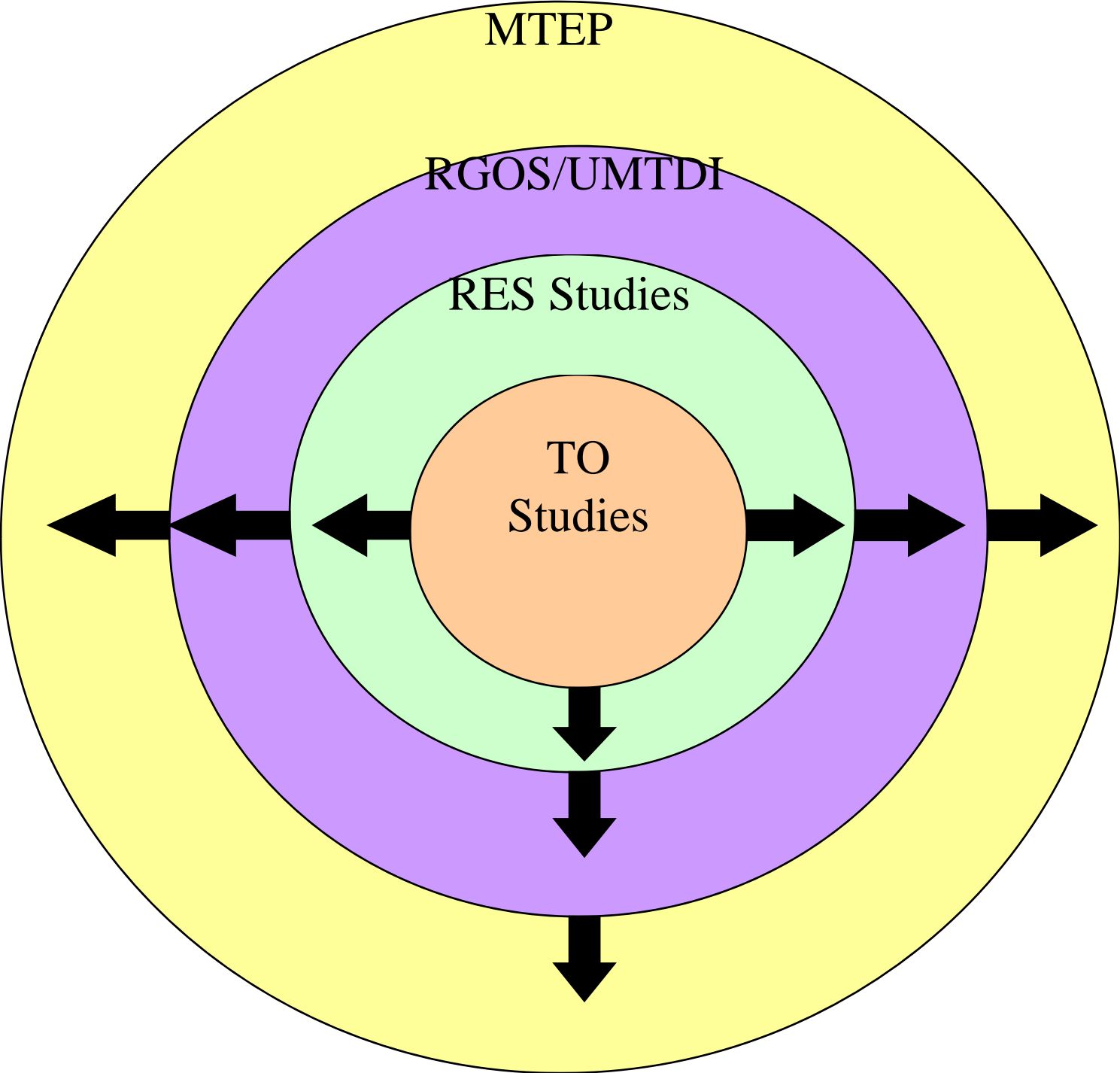
Alleviates emerging community service reliability concerns around the state

Critical foundation for future transmission and generation

Provides needed transmission capacity to support new generation outlet

\$1.4 - \$1.7 billion (2007 dollars)

In-service dates from 2012 to 2015



MTEP

RGOS/UMTDI

RES Studies

TO
Studies