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West Central Minnesota Zone Meeting

May 18, 2005

Willmar, MN

Overview of Presentation

- Xcel Energy will present:
 - Update of Wind Generation Outlet Transmission Projects
 - Hutchinson-Glencoe- Waconia Area
 - US10/I94 Corridor Monticello to St Cloud
 - City Of St. Cloud

Update of wind projects

- Development plans for 425 and 825 MW
- Transmission requirements study for additional outlet



Wind outlet related projects

425 MW stage

- Willmar 115-69 kV replacement (WMU/GRE)
- Minnesota Valley 230-115 kV replacement (XEL)



Wind outlet related projects

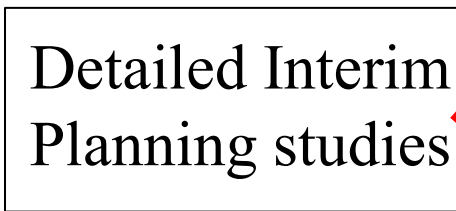
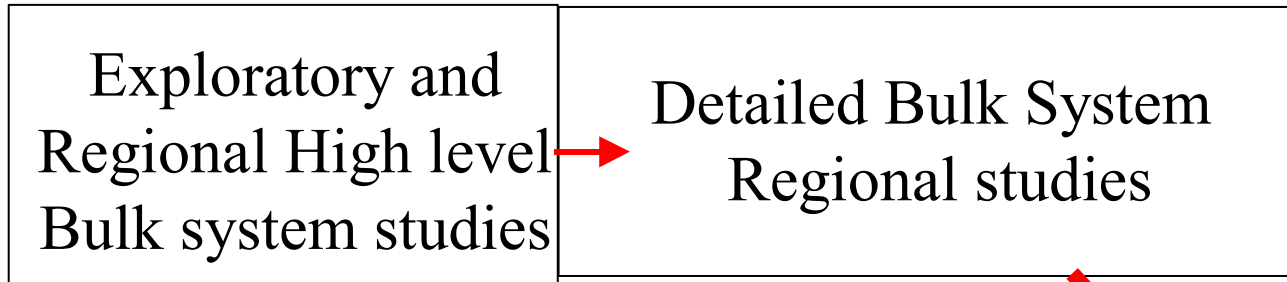
825 MW stage

- Paynesville-Wakefield 115 kV rebuild (XEL)



Plan for Post “825 MW”

Planning Process



Permitting and construction



2007

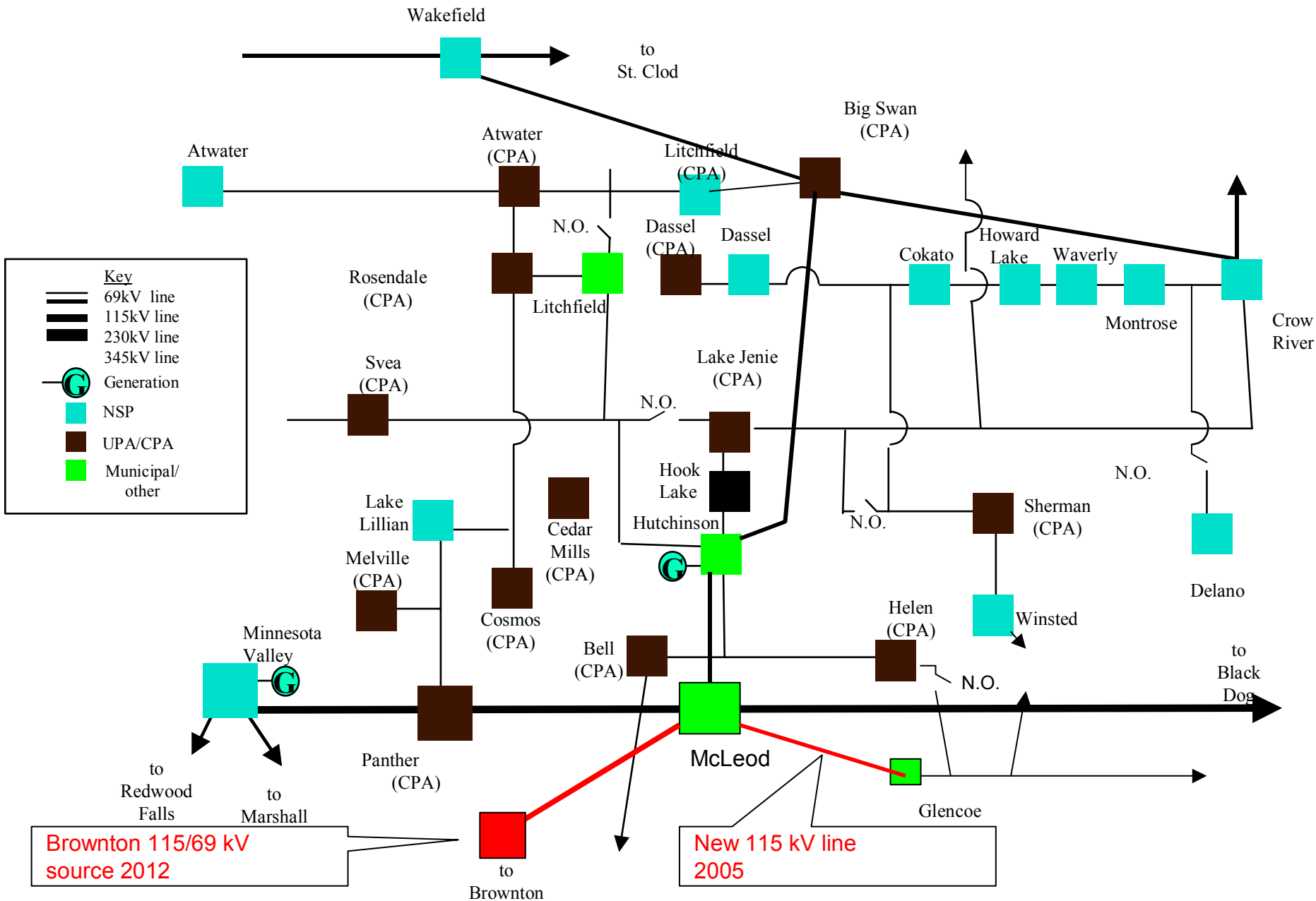
2010-2011

Beyond “825 MW”

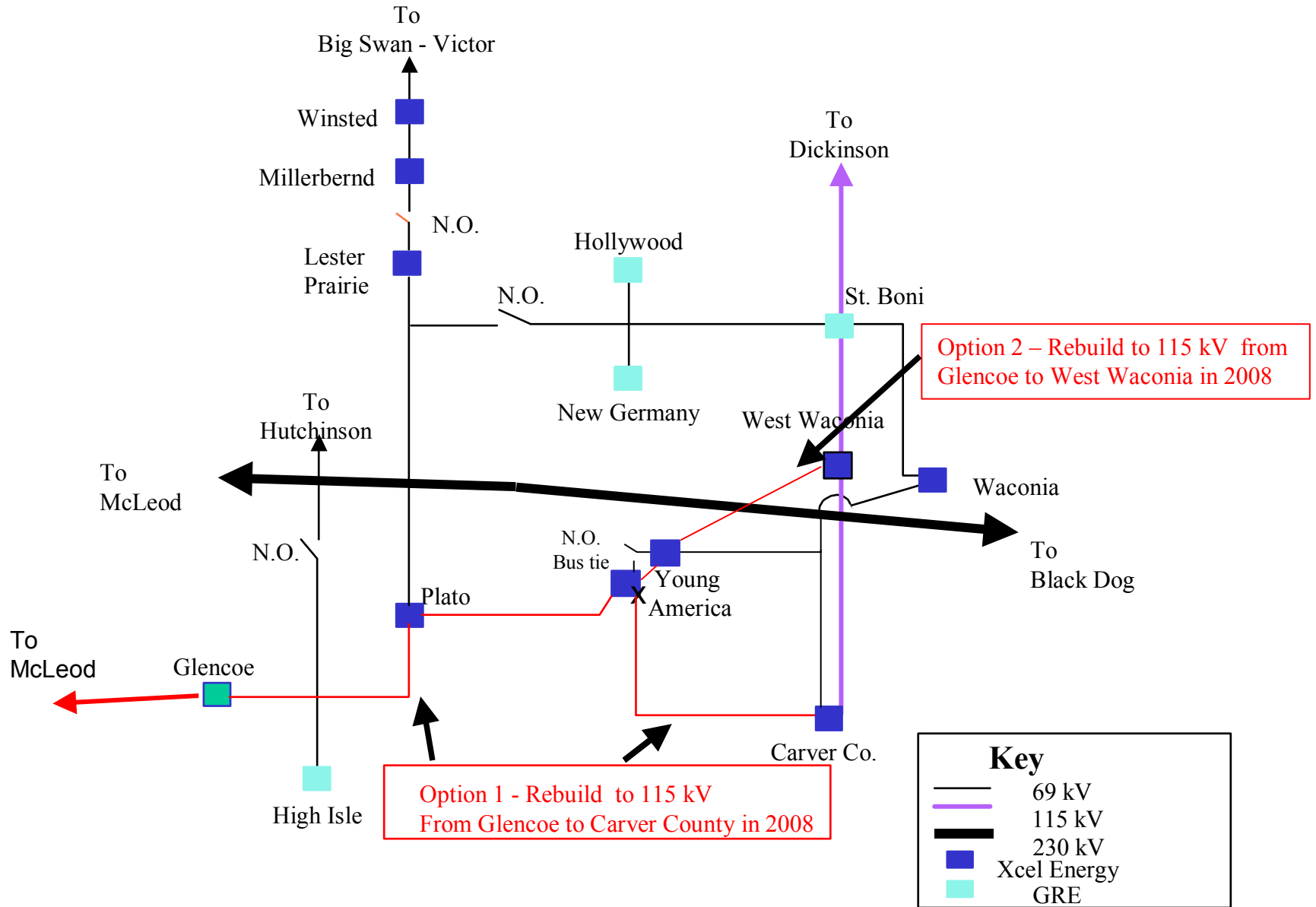
Studies Currently Underway

- Northwestern MAPP Exploratory study
- Iowa – Southern Minnesota Exploratory study
- CAPX 2020 vision plan
- Above studies are high level. More detailed studies to follow
- Studies will test high voltage concepts to get an understanding of how the system will perform
- Studies will coordinate with CAPX2020 planning effort that is also currently underway
- Big Stone II is another effort that is currently underway. 600 MW plant addition at the existing Big Stone site

Hutchinson Sub-Area Existing Transmission System

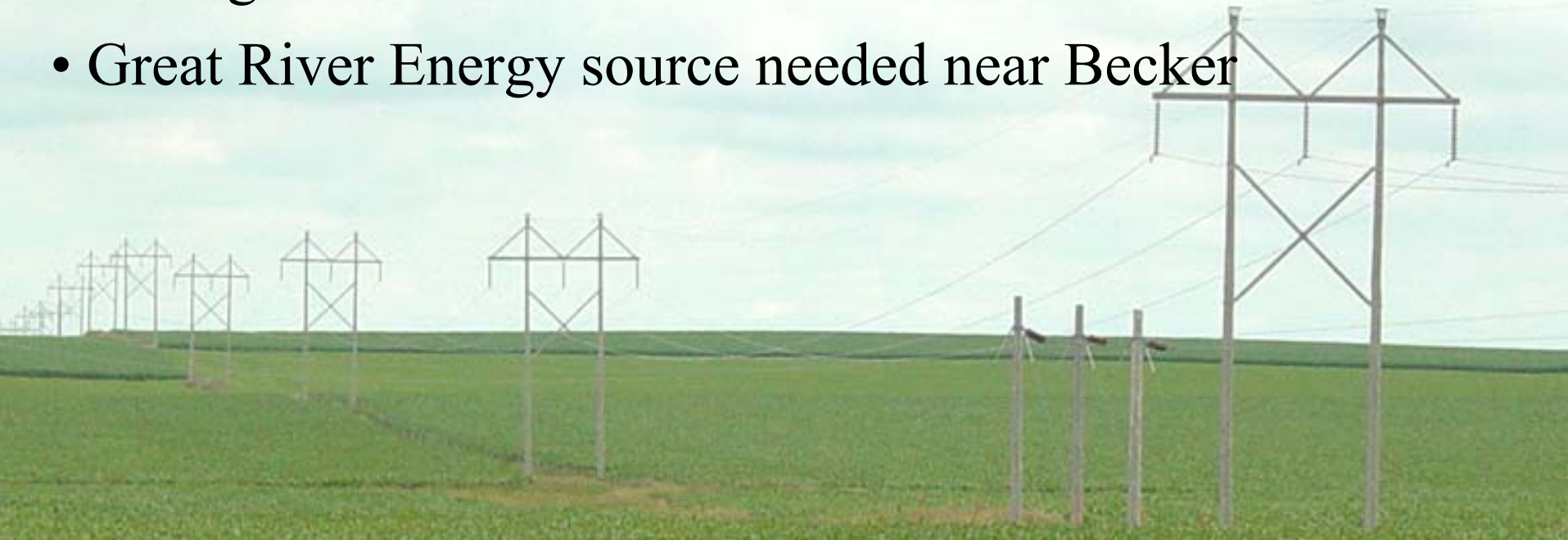


Waconia Sub Area

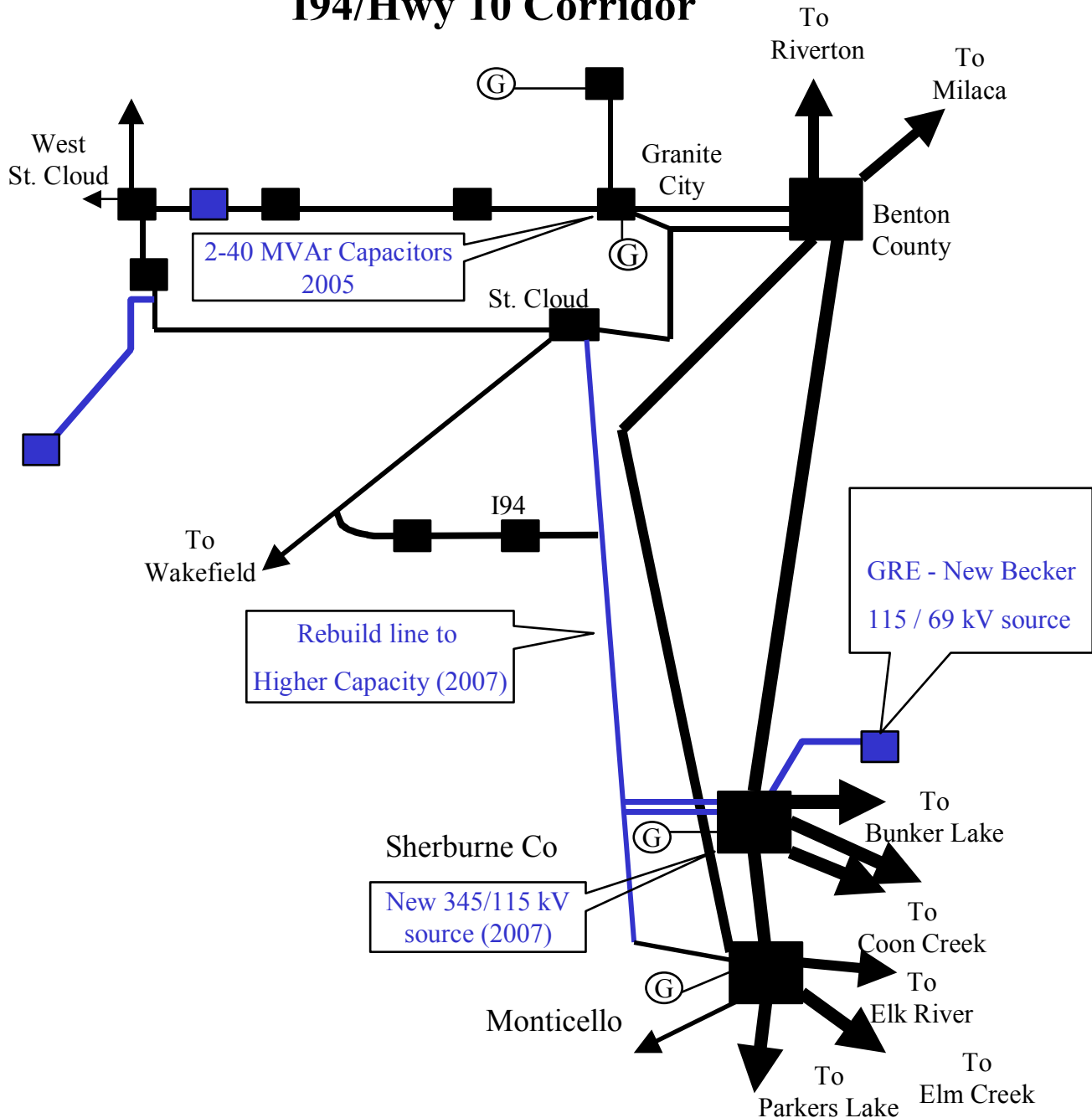


US10/I94 corridor: Monticello to St. Cloud

- **Need: 2006 outage of the 345 kV Sherburne County to Benton County line**
- Worst case loading of Monticello 345/115 kV transformer
- Monticello-St. Cloud 115 kV lines overload
- Load growth in and around St. Cloud
- Great River Energy source needed near Becker



I94/Hwy 10 Corridor



West
St. Cloud

(G)

Granite
City

To
Riverton

To
Milaca

Benton
County

2-40 MVAR Capacitors
2005

St. Cloud

(G)

I94

To
Wakefield

Rebuild line to
Higher Capacity (2007)

GRE - New Becker
115 / 69 kV source

Sherburne Co
New 345/115 kV
source (2007)

(G)

To
Bunker Lake

To
Coon Creek

To
Elk River

Monticello

(G)

To
Parkers Lake

To
Elm Creek

City of St. Cloud - Long Term Solution

- Preliminary work to identify new bulk supply to St.Cloud underway with Northwestern exploratory and CAPX 2020 studies
- Studies will identify concepts that will assist utilities with coming up with detailed solutions for new St.Cloud bulk supply line and other needs for Bulk supply lines



Any Questions/ Input?