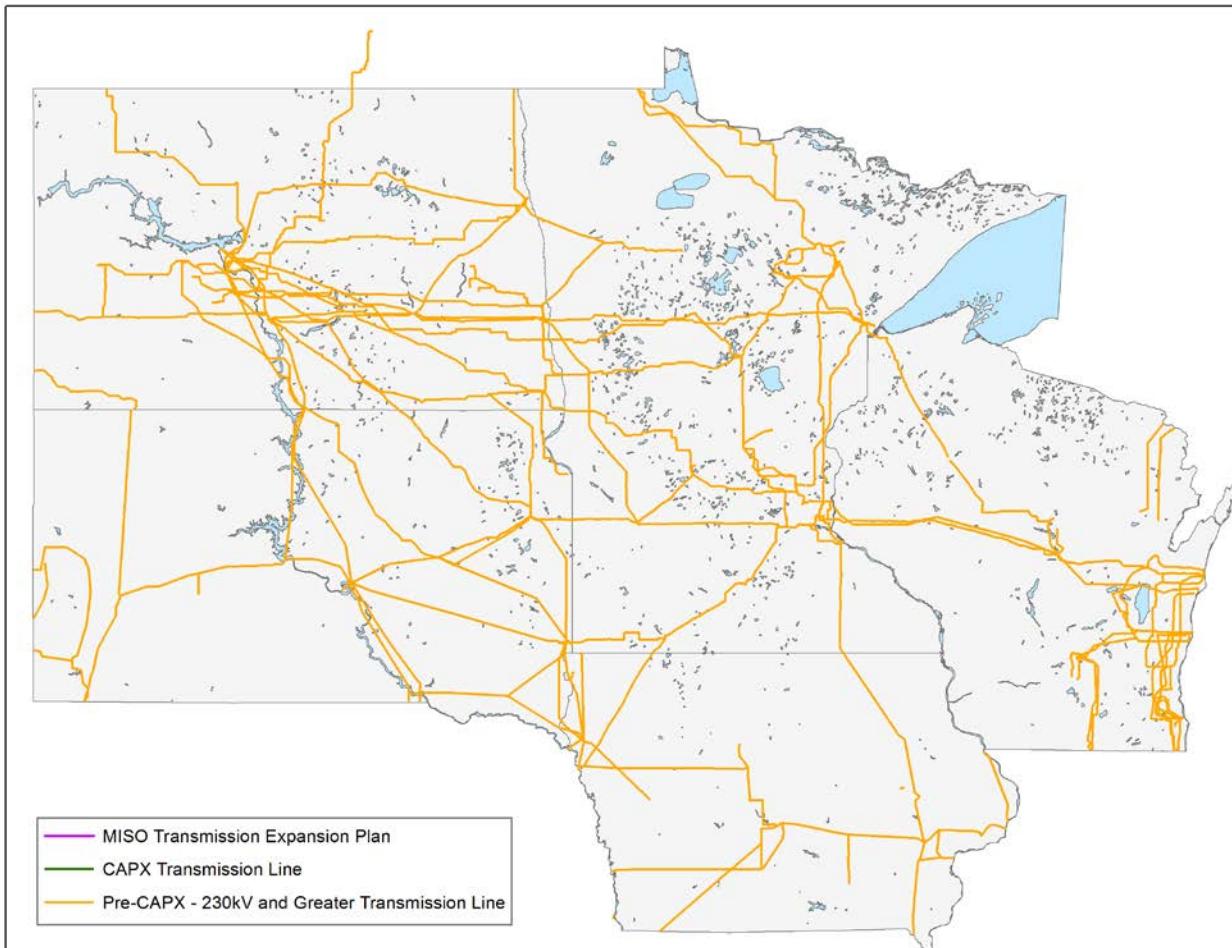


# **Transmission Challenges**

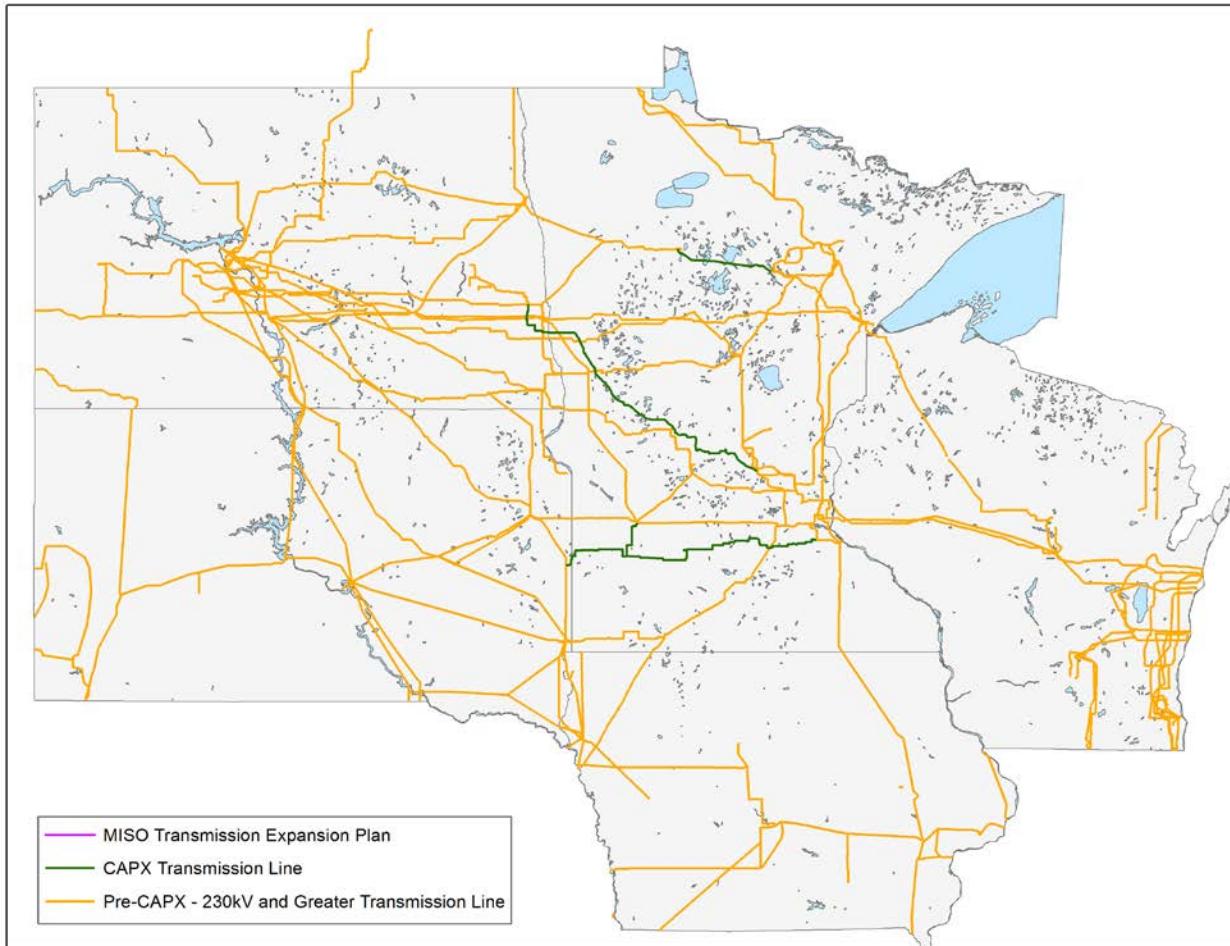
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**Gordon Pietsch  
Great River Energy  
June 2015**

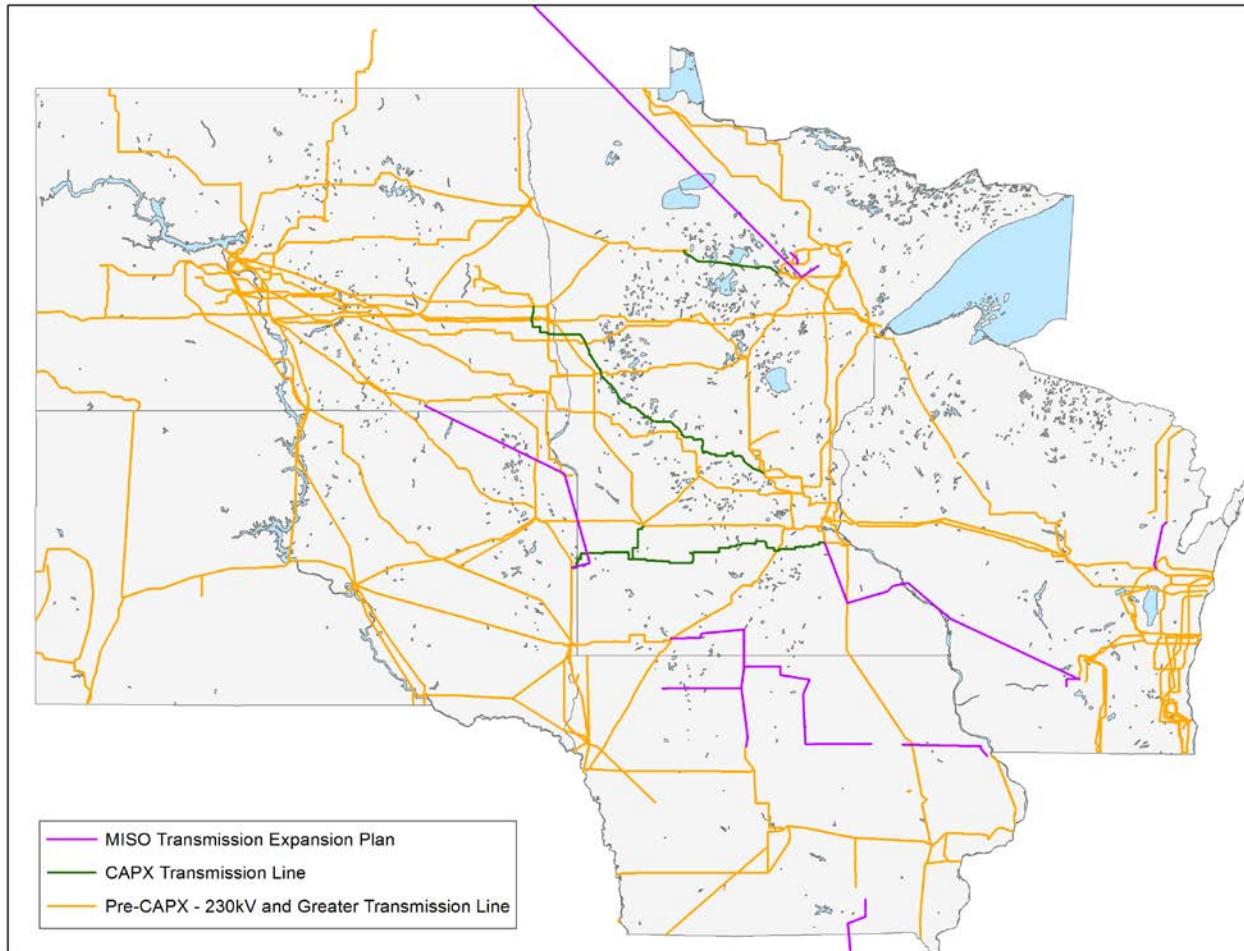
# Transmission 2000



# Transmission today

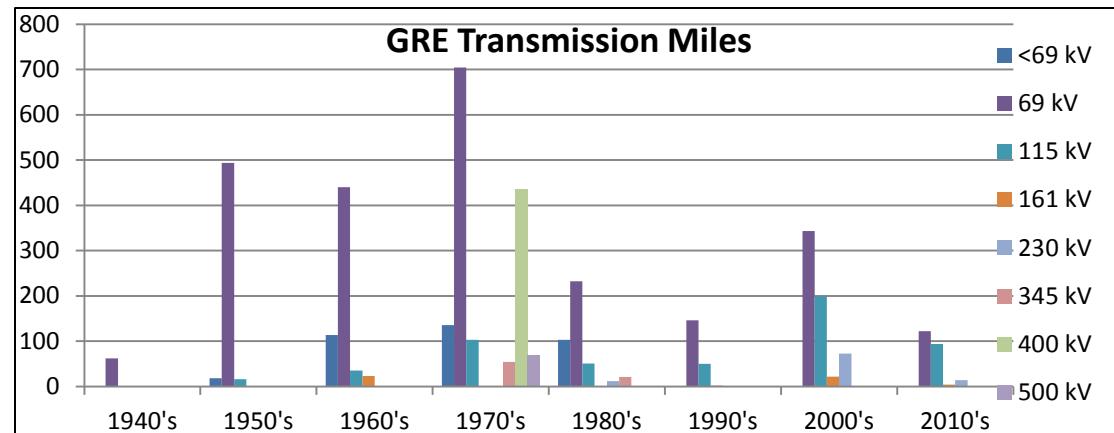
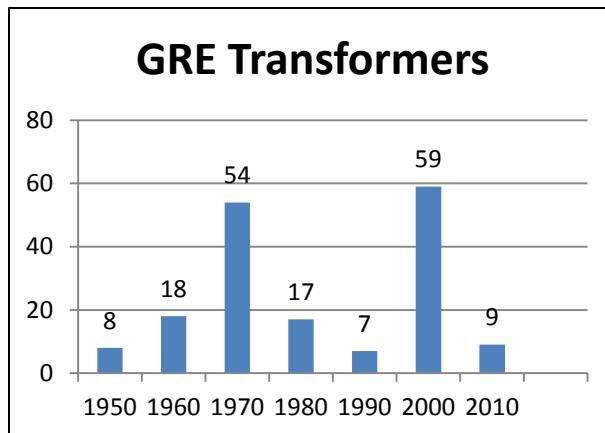


# Transmission plan 2020



# Challenges

## ► Aging infrastructure



## ► Security



# Challenges

## ► Climate Change

- Short term weather patterns
- Long term climate change



## ► Regulatory compliance



Federal Energy  
Regulatory  
Commission

**NERC**  
NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION



# Operational Challenges

## Load Pattern



## Resource Mix



## Technology



## Knowledge



# Opportunities

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## ► Education



## ► Resiliency



PARTNERSHIP FOR  
ENERGY SECTOR  
CLIMATE RESILIENCE  
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