

# M-RETS & Siting Wind Towers

**Steve Kolbeck**

*Commissioner*

*SD Public Utilities Commission*

*May 12<sup>th</sup>, 2009*

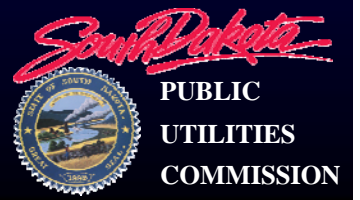
*South Dakota*



**PUBLIC  
UTILITIES  
COMMISSION**



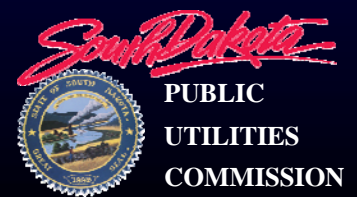
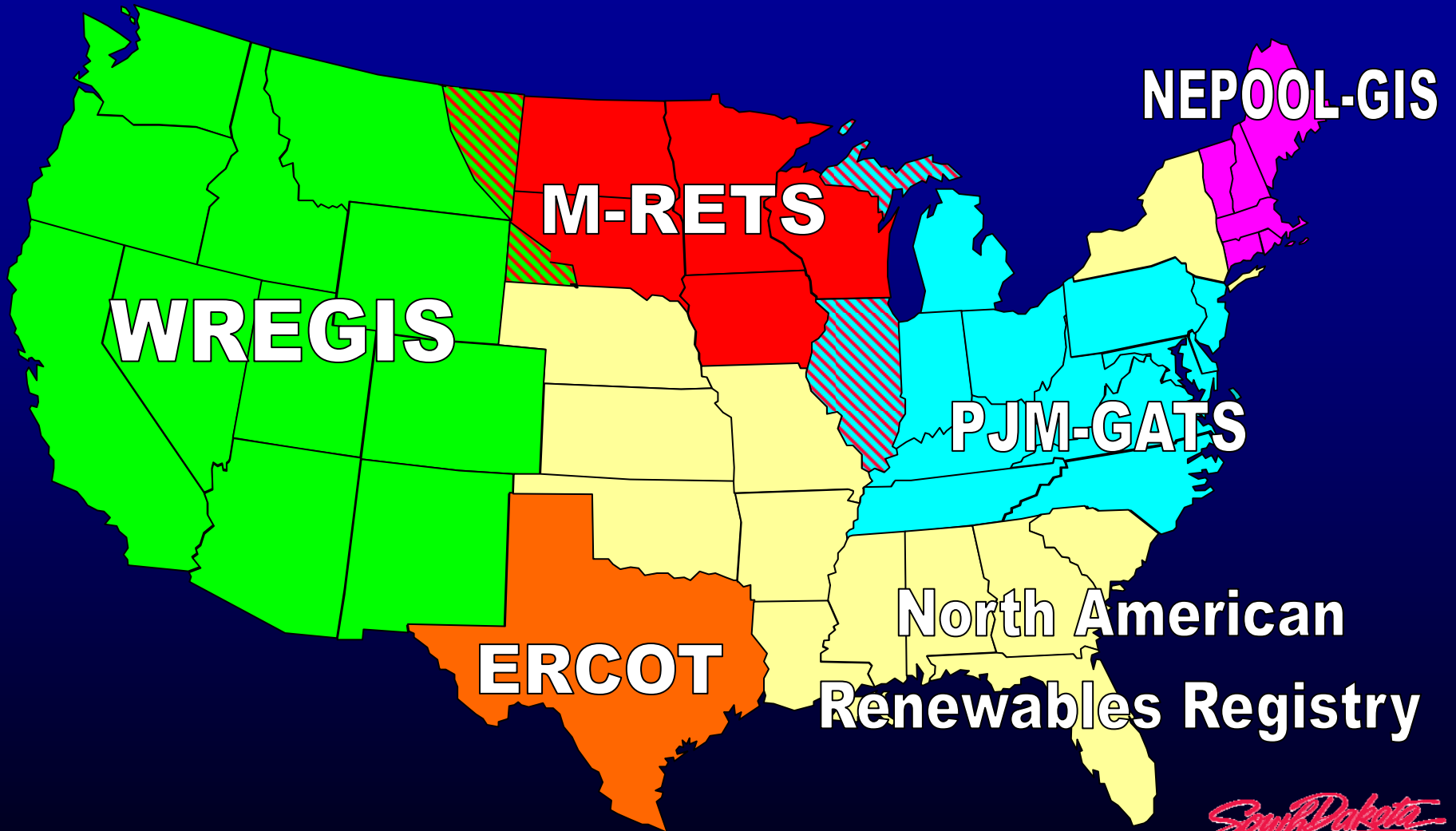
# M-RETS



# What is M-RETS?

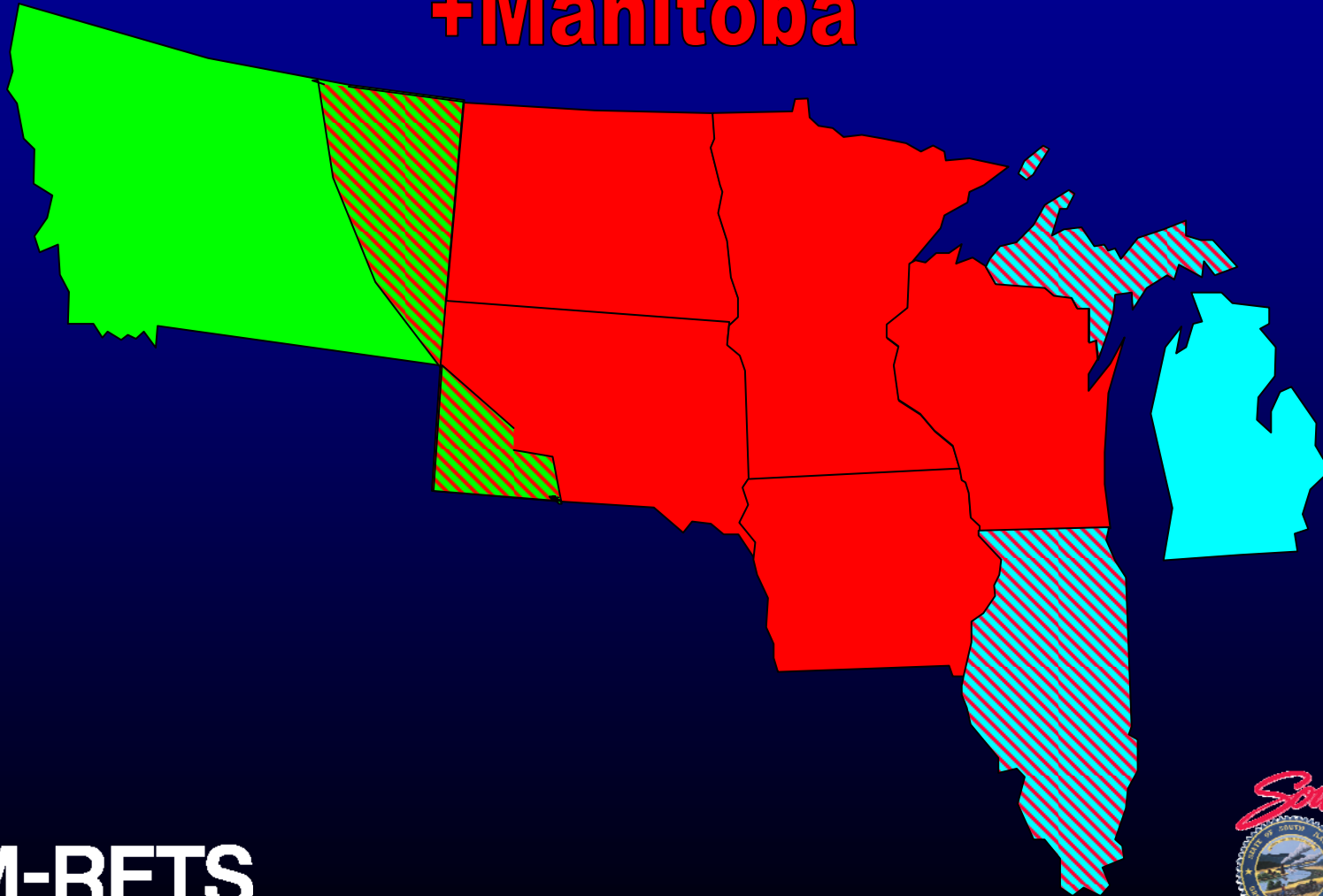
- 🌀 Midwest Renewable Energy Tracking System
- 🌀 System for tracking the following:
  - 🌀 Green Tags
  - 🌀 Green Credits
  - 🌀 Renewable Energy Credits (RECs)
  - 🌀 Renewable Energy Certificates (RECs)
  - 🌀 Tradable Renewable Credits (TRCs)
  - 🌀 Tradable Renewable Credit Certificates (TRCCs)
- 🌀 “Policy Neutral” Design

# What is M-RETS?



# What is M-RETS?

**+Manitoba**



# Why do we need M-RETS?

- More demand for renewable energy
  - Mandates
  - Marketing
  - Beliefs
- Buyers are willing to pay a premium price for renewable energy

# Why do we need M-RETS?

- 🌀 Marketers and consumers need to verify authenticity
- 🌀 State regulators will be able to verify compliance with state renewable standards
- 🌀 M-RETS provides the authenticity needed



# History of M-RETS

- 🌀 2-year initiative to launch M-RETS
  - 🌀 Powering the Plains/Great Plains Institute
  - 🌀 Isaak Walton League of America
  - 🌀 Center for Resource Solutions
- 🌀 Major funding from The Joyce Foundation
- 🌀 Technical Review Committee (TRC) formed
- 🌀 Technical Recommendations released



# History of M-RETS

- 🌀 M-RETS Operating Procedures created
- 🌀 Request for Proposal (RFP) Issued
- 🌀 Two proposals
  - 🌀 APX
  - 🌀 CPM
- 🌀 Contract awarded to APX
- 🌀 M-RETS began tracking RECs on July 2<sup>nd</sup>, 2007

# M-RETS Now

- ❁ Decisions made by Governance Committee consisting of stakeholders from each state
- ❁ Governance Committee was incorporated in 2008 – MRETS, Inc.
- ❁ M-RETS, Inc. allows representation through seats on the Board of Directors
- ❁ M-RETS, Inc. will take control of the system when APX contract expires in 2011

# M-RETS Now

- 🌀 Currently being used by Minnesota, Wisconsin, and Iowa for RPS compliance
- 🌀 Compatibility with other systems
- 🌀 Emissions Tracking

# Siting Wind Towers



# Wind Tower Concerns

## Current Siting Authorities

- For large wind farms, greater than 100 MW, the Public Utilities Commission must issue a permit
- Anything smaller than 100 MW does not need a PUC permit
- A number of counties have established siting ordinances for less than 100 MW (Brookings, Deuel, Yankton, Lawrence, etc.)
- For small wind, only Lawrence and Yankton counties (that I know of) have specific ordinances. Everyone else typically needs a variance from their local commission to put a tower over 35’.
- The FAA also has jurisdiction over any structure >200 feet



# Tower Working Group

Objective:

To provide local government officials with the information they need to site wind and wireless towers **responsibly** and **efficiently**



# Tower Working Group

## Stakeholders from Wind & Wireless Industries

SD Public Utilities Commission

Verizon Wireless

SD Assoc. of County Comm.

Alltel

SD Municipal League

PCIA – Wireless Infrastructure

SD Historic Preservation Office

CTIA – Wireless Association

SD Dept. of Game, Fish & Parks

American Wind Energy Assoc.

SD Economic Development

Wind Developers

US Fish and Wildlife



# Tower Working Group

Deliverables:

Model **Wind** Siting Ordinance

Model **Wireless** Siting Ordinance

Environmental & Cultural Concerns





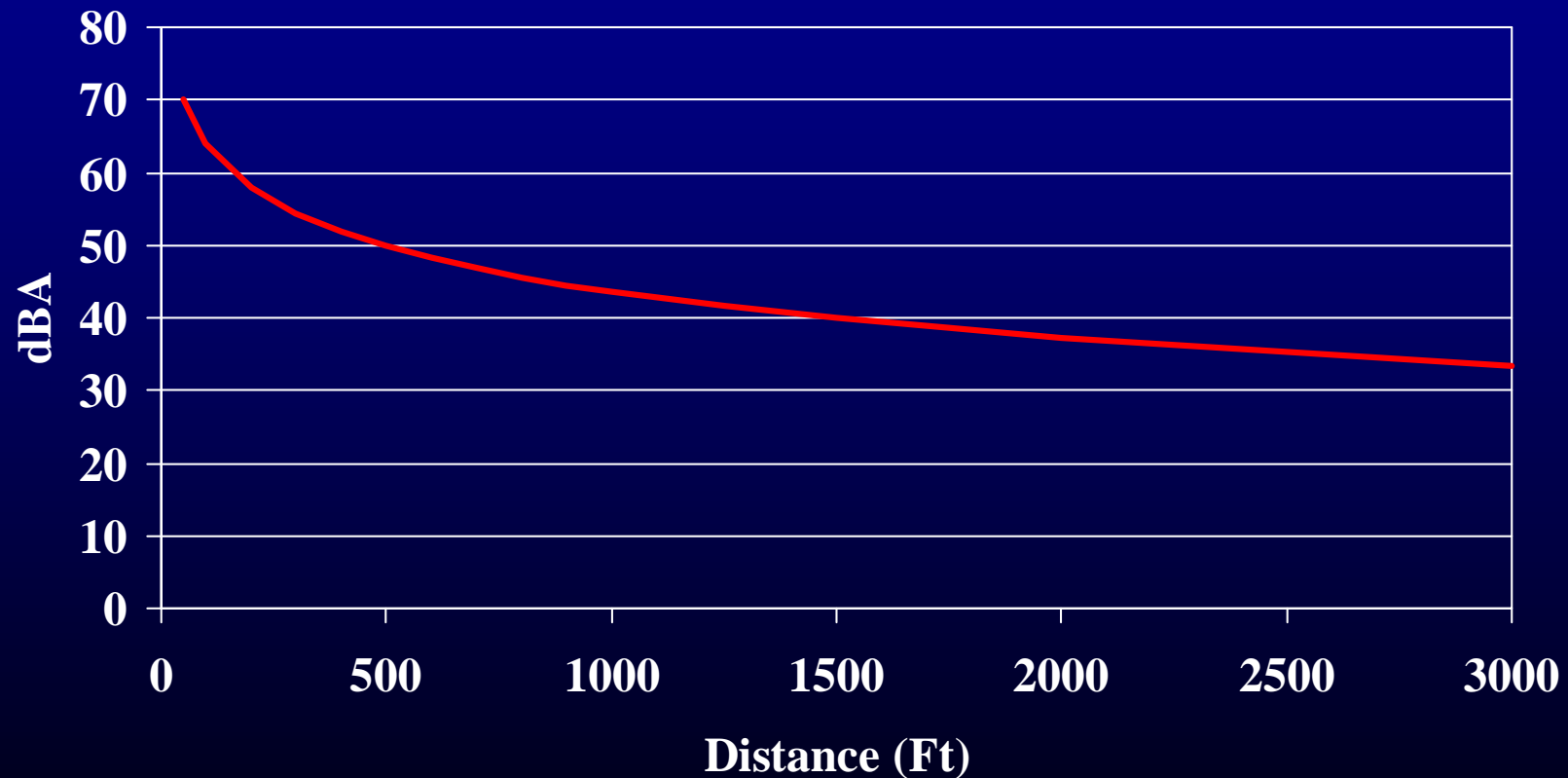
# Wind Tower Concerns

## Noise

- Wind turbines typically make a “whooshing” sound
- Can be as high as 70 dB right next to the turbine
- 45-55 dB is more acceptable
- For large wind, a setback of 1000-1500’ from residences will keep that noise level down
- Noise levels for small wind turbines varies
- Best to set a decibel level such as 50 dB and determine the setback needed from the manufacturer

# Wind Tower Concerns

## Noise (cont.)



Wind Speed- 8m/s, relative humidity 80%, 50 degrees F, no attenuation from trees, terrain or barriers

# Wind Tower Concerns

## Aesthetics

- Towers can be either beautiful or an eyesore
- Modern towers are huge: 200-400 feet tall
- Shadow Flicker: Strobe-like effect caused by shadows of moving blades
- Local property values are a concern to homeowners
- Tourism may be affected positively or negatively

# Wind Tower Concerns

## Effects on Wildlife/Culture

- Studies are being done on birds and bats
- U.S. Fish & Wildlife is concerned about siting towers on migratory bird paths through South Dakota, specifically whooping crane, song birds
- SD Game, Fish & Parks concerned about siting towers on contiguous grasslands and on paths between wetlands
- SD Historic Preservation Office concerned about siting towers on culturally significant land
- All three of the above agencies should be contacted early in the development process and consulted with during siting



# Wind Tower Concerns

## Decommissioning

- For projects  $> 100$  MW, SDPUC has siting authority, and typically requires some sort of bonding or guarantee
- For projects  $< 100$  MW, local authorities may want to take this into account
- Wind farms may limit urban sprawl due to 1,000 to 1,500 ft setbacks
- Safety net should be in place in case of project failure



# Thank You!

**Steve Kolbeck**

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