North Dakota Public Service Commission Greenhouse Gas Regulation Symposium

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GREAT RIVER ENERGY®

Great River Energy at a Glance

- 28 member cooperatives – 1.7 million consumers
- 4th largest G&T in the nation
  - $3.7 billion total assets
  - $2.8 billion total debt
  - $921.2 million revenue
- 880+ employees (MN and ND)
- 3,619 MW generation
  - 468 MW wind
- 4,600+ miles transmission

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Great River Energy's Members Rely on North Dakota Coal Plants

- Coal Creek Station 1140 MW
- Stanton Station 188 MW
- Spiritwood Station 99 MW
- 70% of GRE's energy comes from coal
- GRE's North Dakota coal-fired plants are the economic foundation for our members' affordable rates

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Greenhouse Gas Regulation Poses a Fundamental Business Risk for GRE and Our Members

- Reliability: GRE is a MISO member; MISO region depends on coal
- Affordability: GRE has over $1 billion in undepreciated investment in ND coal plants
- Employment: GRE has over 400 direct jobs in ND power plants; MN benefits greatly from affordable, coal-based power

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Great River Energy's Response to the Risk

- GRE's board took action to prepare for GHG regulation
  - Reduce stranded investment risk by depreciating Coal Creek and Stanton by 2028
  - Reduce CO_2 emissions
  - Reduce reliance on coal
- GRE board directed management to engage in the development of GHG regulations to protect our members

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Great River Energy's Engagement Activities

- National Rural Electric Cooperative Association; Lignite Energy Council
- Midwest Power Sector Collaborative
  - Diverse group led by Great Plains Institute
  - Members include: North Dakota-based utilities; regulators from MN, MI, IL and KY; environmental NGO's
  - Principles for development of EPA standards
    - Maximum state flexibility
    - Maintain reliability and affordability while reducing CO_2 emissions
    - Recognition for early action
    - Support harmonization across state boundaries

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A Suggestion for a Market-based Regional Approach

- Establish a target for CO_2 emissions for the MISO region
  - Set by negotiation between ISO states and EPA
  - No caps on plants or utilities
- ISO optimizes for reliability, cost, CO_2 and emissions
- Carbon price set by ISO to meet the target
- Carbon price/ton CO_2 is charged to generators; carbon revenues collected by ISO and refunded to load based on MWHs

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Advantages of ISO Approach

- Optimization ensures focus on reliability and cost
- Avoids direct control of plant emissions, maximizing efficiencies
- Best plants continue to operate; coal states benefit from region-wide CO_2 reductions
- Applies an efficient market-based carbon price with no government tax

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