

Great River Energy: Our Beliefs, Focus & Future

5 October 2006

MN WasteWise Annual Meeting

GREAT RIVER ENERGY®
A Touchstone Energy® Cooperative



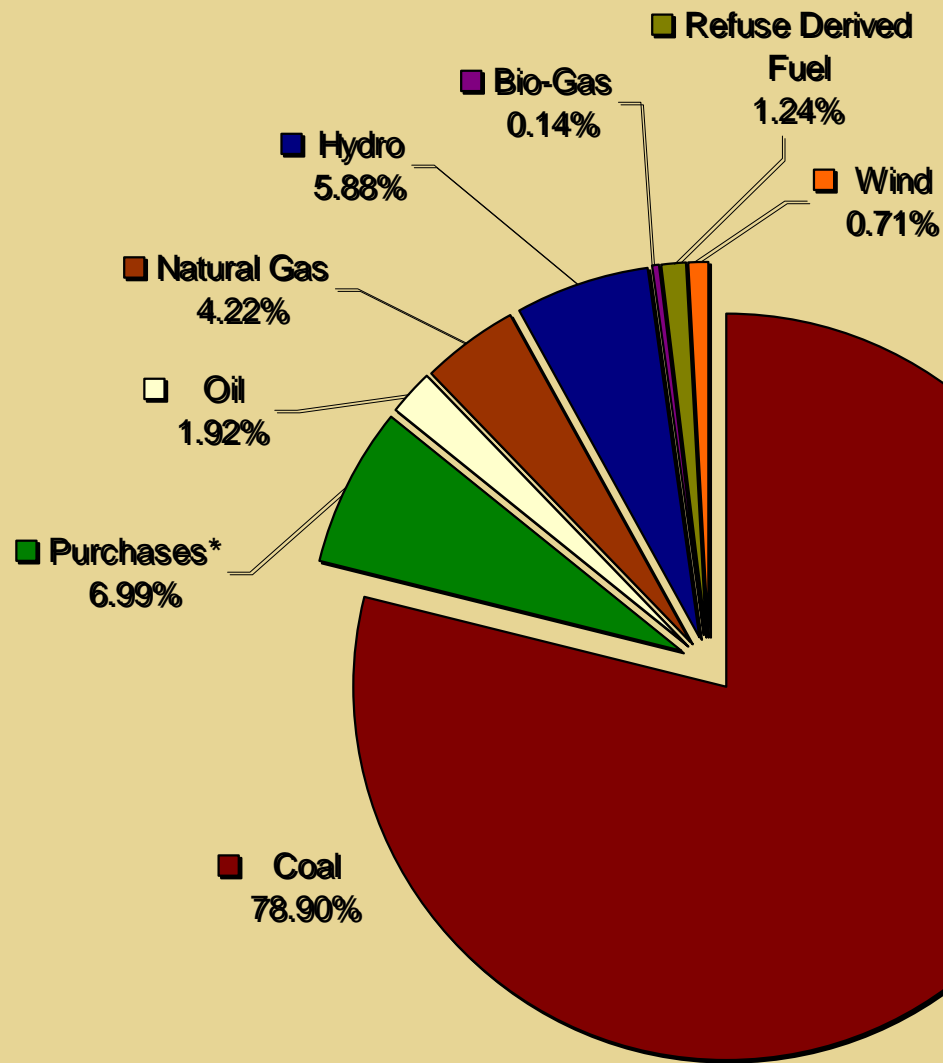
Who Is Great River Energy?

- Cooperative Generation & Transmission Company
 - Member Co-ops provide to actual customers
 - 600,000 customers across Minnesota and Wisconsin
- Formed in 1999
- First to Commit to the State of MN's Renewable Energy Objective (10% of capacity by 2015)
- New Environmental Strategic Imperative

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Current Resources



Environmental Reality

- GRE's Commitment to Environmental Stewardship
- Fastest Growing Electric Utility (Regionally)
- Balancing Future Demand and Environmental Concerns
- Scientific, Technical & Political Realities



Current Environmental Programs

- Wellspring ®
- Coal Combustion Product Use
- Recycling/Reuse
- Employee Education/Awareness
- Conservation Improvement & Demand-Side Management
- Research
- Memberships

Renewable Energy

- **Wellspring ®**
 - Voluntary Program
 - 100 kWh Wind Blocks
 - 4,300 Participants
- **Other Renewables**
 - Waste-to-Energy Facility
 - 100 MW of Wind in 2005
 - 100 MW of Wind in 2007
 - Goal of 20% Renewable by 2020 (currently 5%)



Coal Combustion Products

- 2 Coal-Fired Plants in North Dakota
 - Coal Creek Station (Lignite)
 - Stanton Station (PRB)
- Invested \$27 Million in Ash Infrastructure
- Coal Creek Station Fly Ash Sales
 - Sold/Used 513,000 Tons for Concrete in 2005
 - 400 Tons to Landfill
 - 1 Ton Ash in Concrete Reduces CO₂ by ~1 Ton in Production
- Stanton Station Growth
 - 1,700 Tons Sold in 2005
 - Goal of 7,000 Tons in 2006

Recycling/Reuse

- Aggressive Recycling Program Since 2002
- EPA WasteWise Partners
- 2,000,000 Pounds Scrap Metal Recycled in 2005
- Donate All Computers & Equipment to Minnesota Computers For Schools
- Recycle All Batteries (Alkaline Program)



Employee Education/Awareness

- **New Employee Orientation**
 - Items Recycled
 - Disposal Contacts
 - Encourage Improvements
- **Home Disposal Education**
 - What is Recyclable/Hazardous
 - Where to Dispose
 - Updated Fact Sheets



Conservation Improvement & Demand-Side Management

- \$18 Million in 2005
- Goal of \$20 Million in 2006
- Controllable Load
 - Interruptible Air Conditioners
 - Off-Peak Water Heating
- 30 million kWhs of Energy Efficiency in 2005
 - Energy Star ®
 - Ground Source Heat Pump
 - Commercial Lighting

Environmental Research

- Industry Groups
 - Electric Power Research Institute
 - Energy & Environmental Research Center
- Coal Drying (Coal Creek Station)
- Mercury Research
- Carbon Sequestration Projects



Environmental Memberships/Partnerships

- EPA SF₆ Emission Reduction Partnership for Electric Power Systems
- NRECA Participation in Power Partners
- 1605(b) Voluntary Greenhouse Gas Reporting Participation
- Industry Interest/Research Groups
 - Plains CO₂ Reduction Partnership
 - Lignite Energy Council



Our Other Projects

- **Combined Heat & Power (CHP)**
 - Blue Flint Ethanol
 - Spiritwood Energy Park
- **Fleet Vehicles**
 - 16% Light Duty Vehicles are Hybrids or FFVs
 - 25% by end of 2006
 - 100% by end of 2011
- **New Headquarters**
 - More Efficient than ASHRAE Energy Code Requirements
 - More Efficient than MN Code
 - LEED Platinum Certification Goal



Our Future

- Environmental Stewardship Strategic Imperative
 - “Act on the evidence that climate change is real by responding with initiatives that support a sustainable environment”
- Continue Research
- Investigate & Support Appropriate Legislation/Regulation



Questions

