

Great River Energy Overview

Gary Connett
Director, Member Services

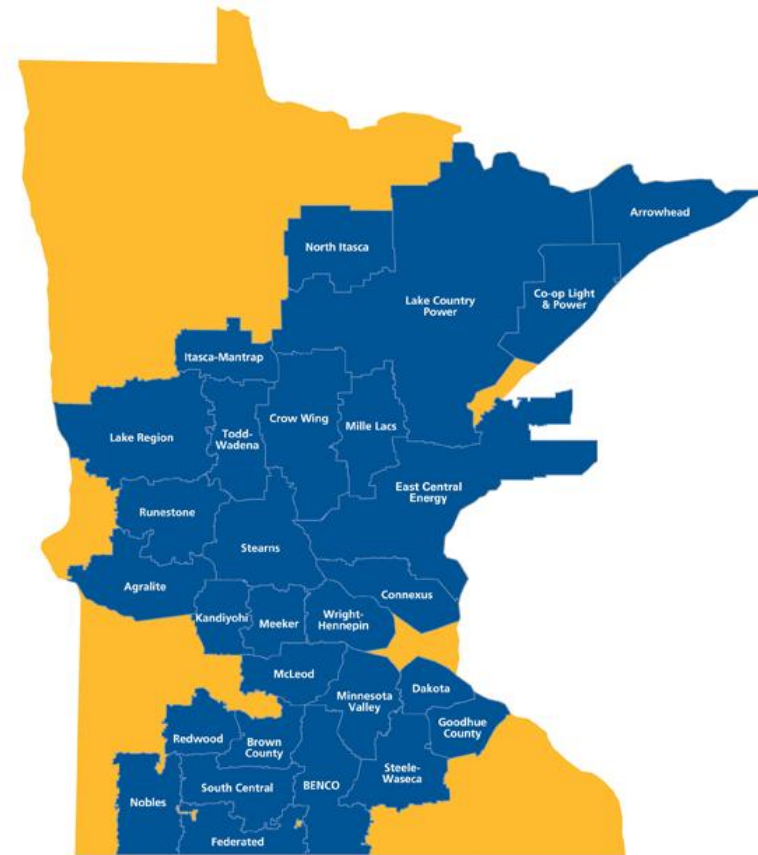
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Great River Energy

- 28 member cooperatives
 - Serving 650,000 members
 - 92% of members are residential
 - 7.5 members/mile
- 870 employees (MN and ND)
- 3,619 MW generation
- 4,600 miles transmission lines

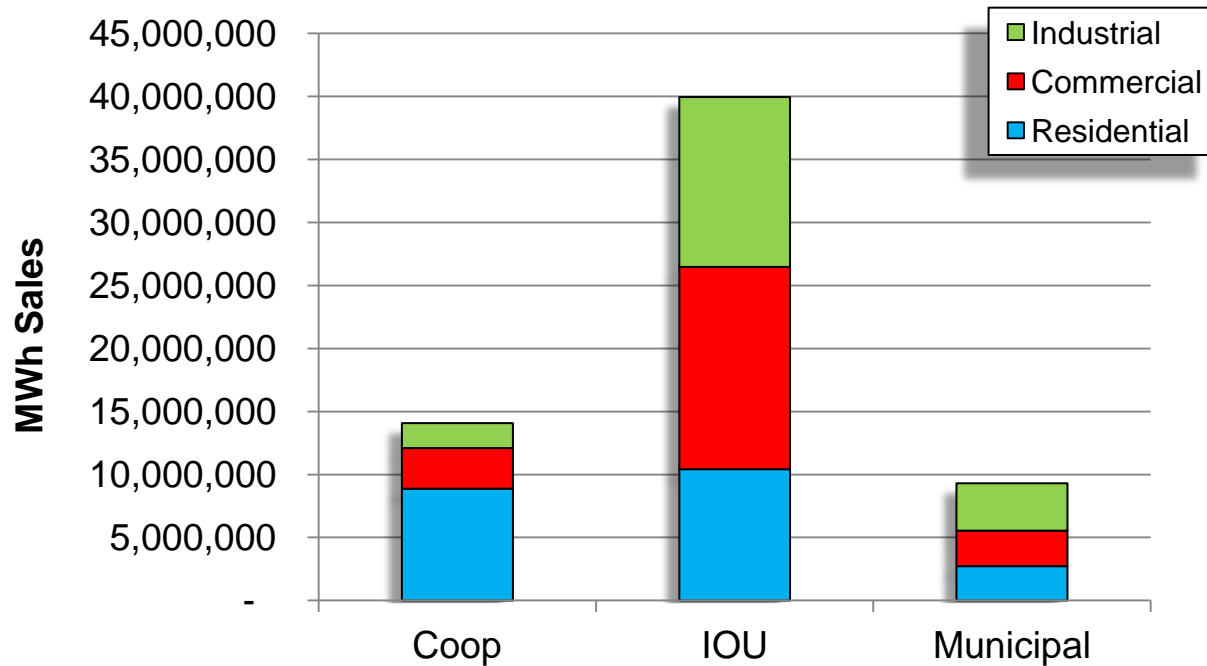


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MN retail electric sales



	Residential	Commercial	Industrial	Total
Co-op	63%	23%	14%	100%
IOU	26%	40%	34%	100%
Muni	29%	30%	40%	100%



Generation resources

- **Baseload plants**

- Coal Creek 1,141 MW
- Stanton 189 MW
- Spiritwood Station 99 MW
- Genoa #3 143 MW

- **Biomass**

- Elk River Station 30 MW

- **Peaking plants**

- 8 MN locations 1,400 MW

- **Wind resources**

- 8 MN locations 470 MW

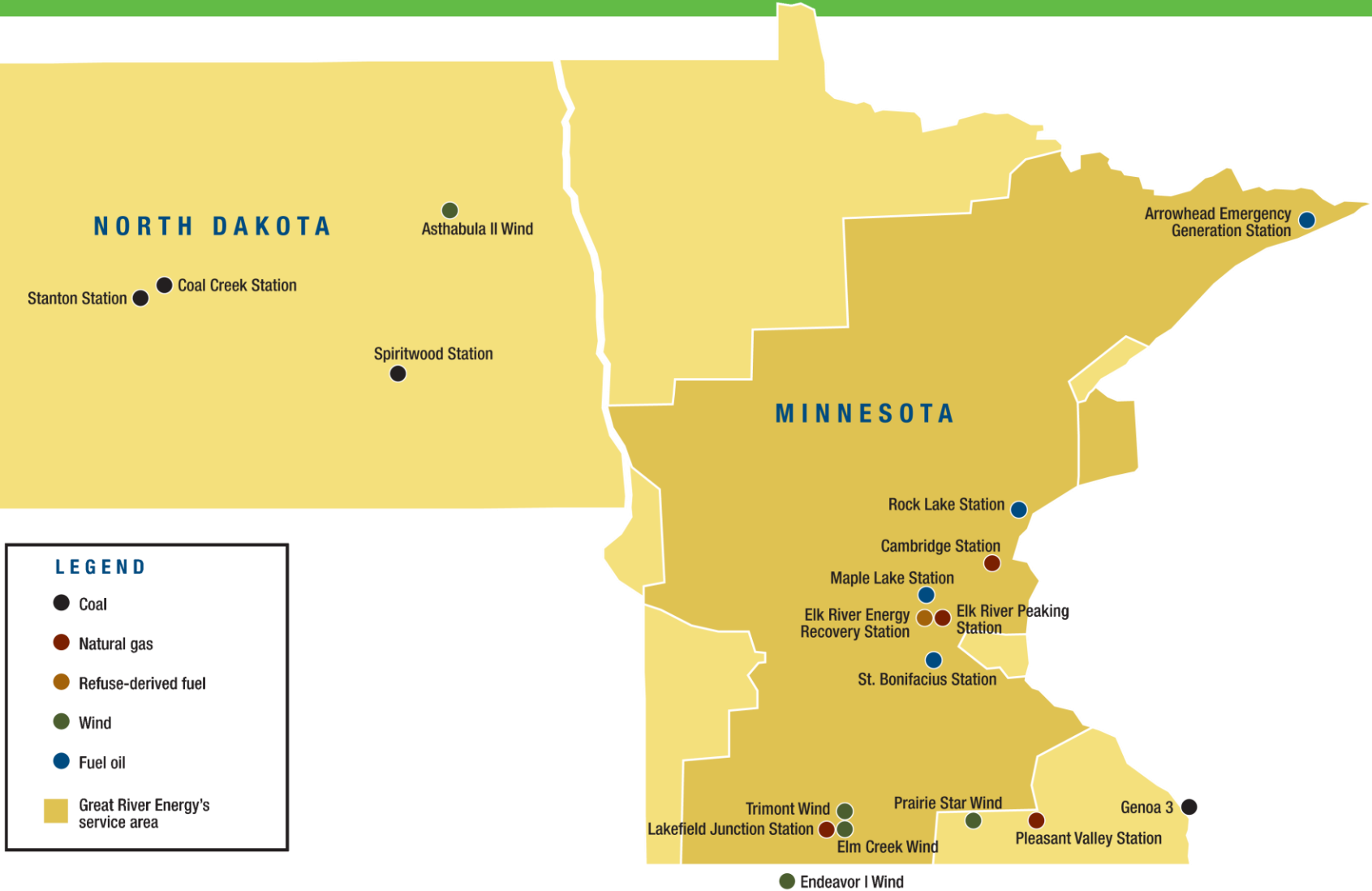


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Generation resources



Renewable energy resources

- Wind power: 470 MW
 - Ashtabula II, Elm Creek Wind, Endeavor, Trimont Wind, Prairie Star Wind and three smaller wind farms
- Elk River Station: 30 MW
- Elk River Landfill: 3 MW
- Morris, MN dairy farms: 5 MW
- Total: 508 MW**



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Renewable energy standard

- Sufficient renewable resources in place to meet the Minnesota RES through 2024.
- Concerned about the cost of wind energy Vs current wholesale energy prices
- Challenging to add any new resources during a period of no growth
- Continuing to research end-uses that are more compatible with wind energy

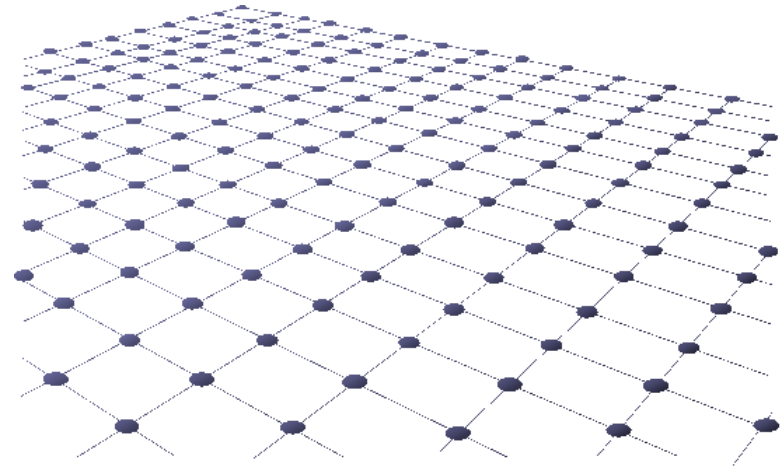
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Conservation Improvement Program

- Meeting all CIP goals and requirements
- Cost per kWh saved equals \$.15/kWh
- Continue to evolve CIP program portfolio
 - Behavior programs
 - More efficient technologies
 - Weatherization efforts



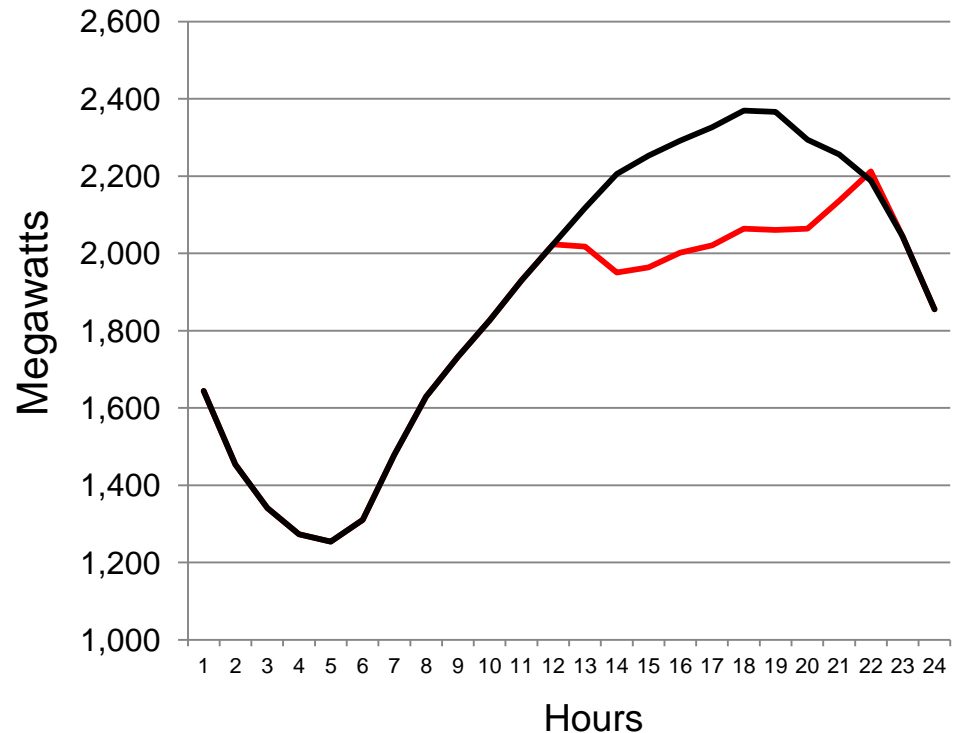
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Demand response

- Nationally recognized program
- Over 350,000 controlled loads
- Reduces peak demand by over 350 Megawatts
- DOE recognizing the value of demand response
- Smart appliances, smart pricing, electric vehicles, electric storage

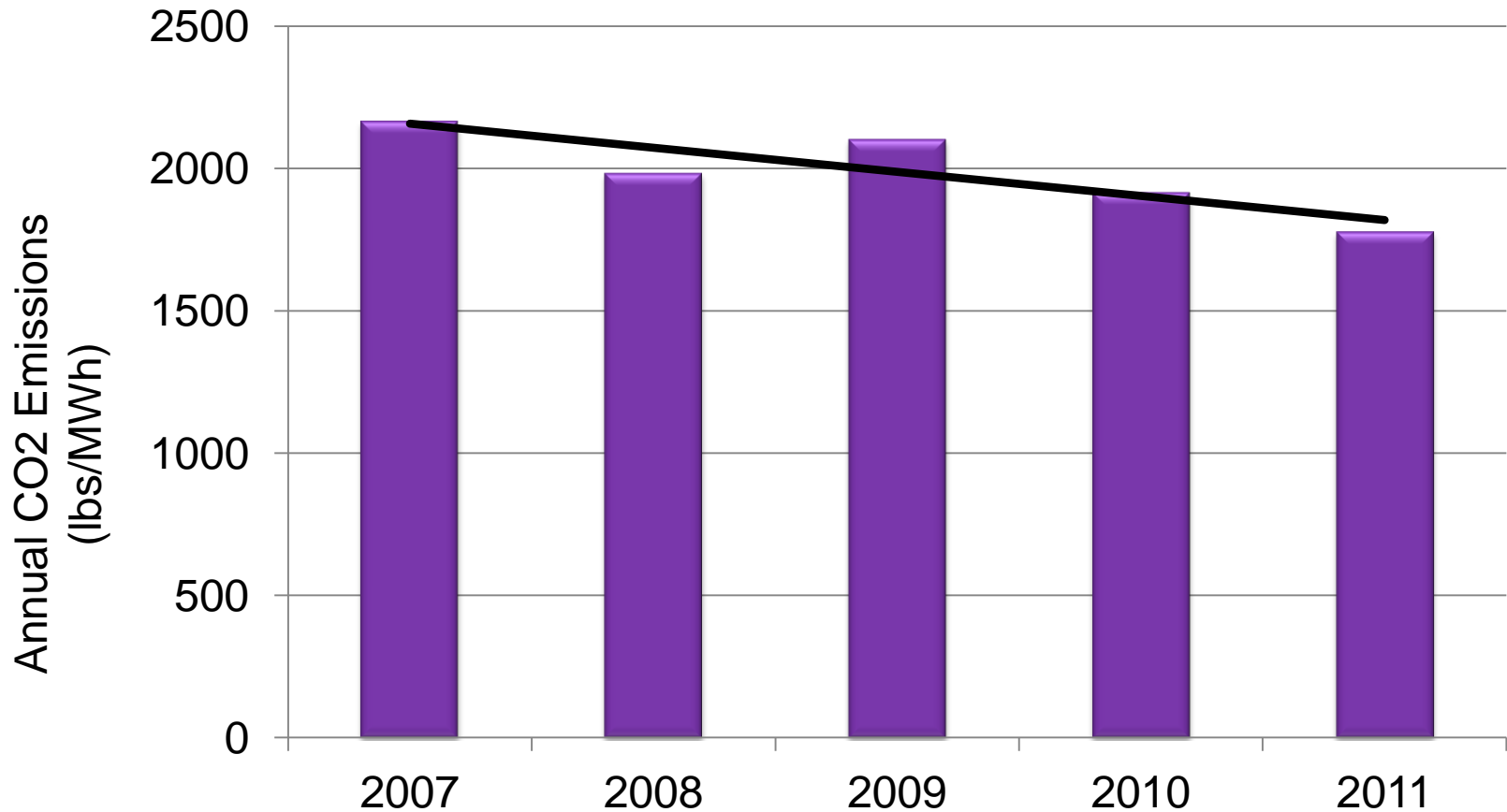


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Carbon emissions



CO2 emissions from GRE facilities (actual) and known purchases (actual) such as hydro and wind

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