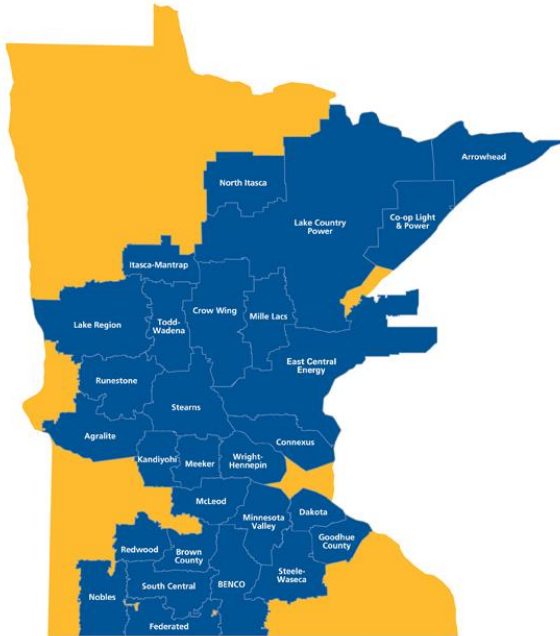


# **GRE's Energy Efficiency Programs**

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**Jeff Haase | Energy Efficiency Program Coordinator**  
September 23, 2015

# Great River Energy




- ▶ Not for profit generation & transmission cooperative providing wholesale electricity to 28 distribution cooperatives in Minnesota and into Wisconsin.
- ▶ Second largest utility in Minnesota, our member cooperatives distribute electricity to families, farms and businesses serving almost 1.7 million people.

# Cooperative Businesses



GREAT RIVER  
ENERGY®

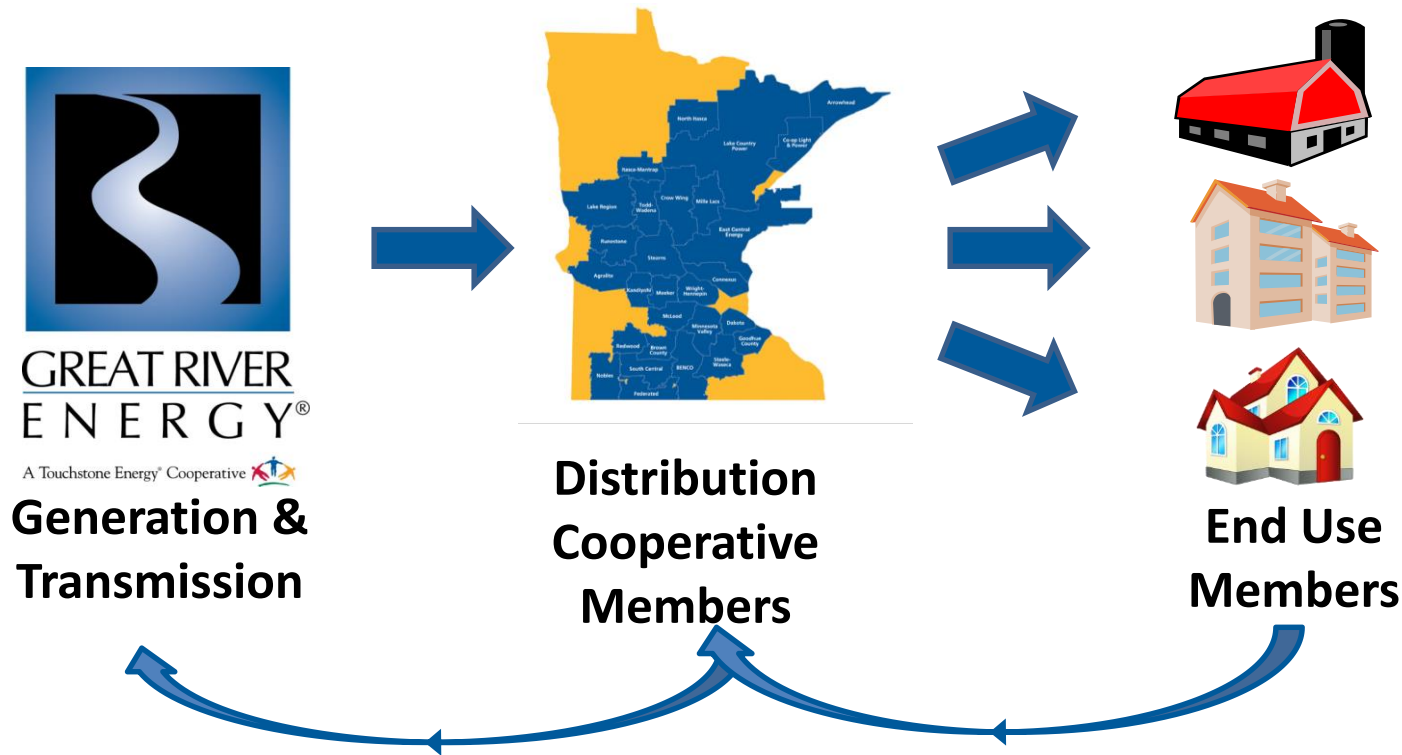
A Touchstone Energy® Cooperative 



*Resources for enriching lives.*

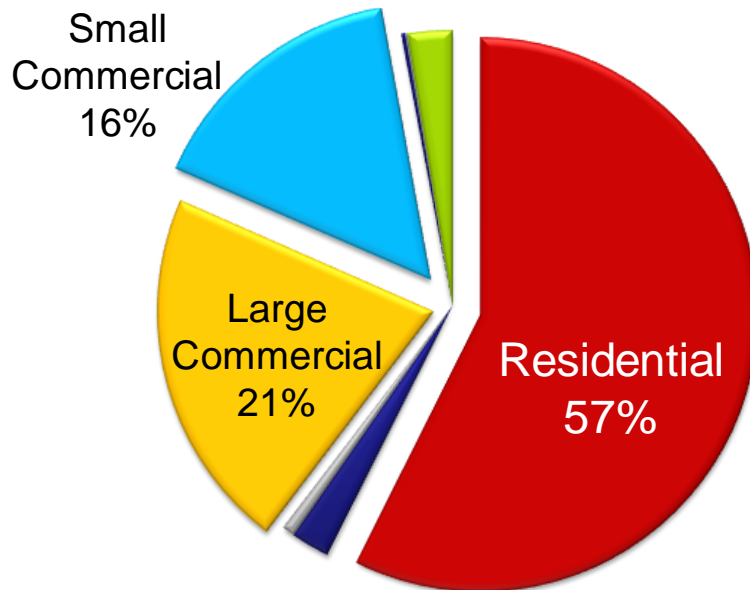


# The Cooperative Utility

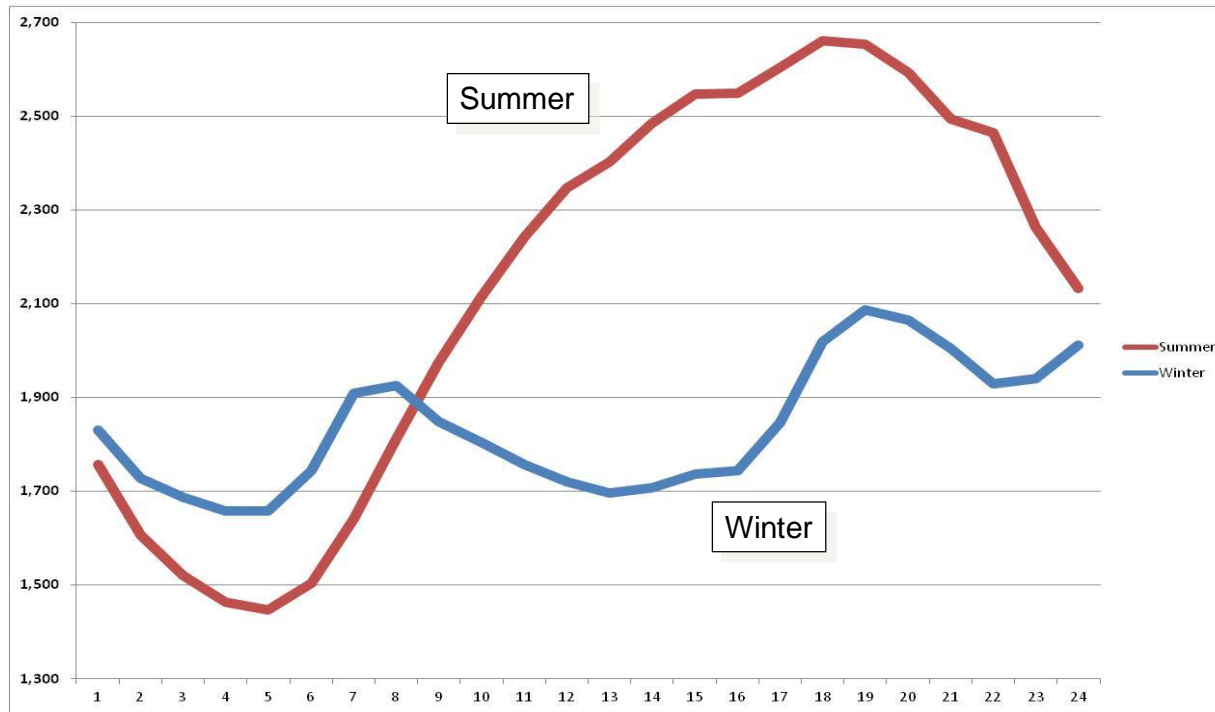


# Utility Metrics

	Investor-Owned	Publicly Owned	Cooperatives
Miles of Distribution Line	50%	7%	43%
Customers per mile of line (density)	34	48	7.4
Revenue per mile of line	\$75,500	\$113,000	\$15,000
Distribution plant per Customer	\$2,798	\$2,740	\$3,290
	Investor-Owned	Publicly Owned	Cooperatives
Sales (billion kilowatt hours)	2708	570	413
Residential	36.6%	37.2%	57.9%
Commercial	39.0%	36.8%	20.3%
Industrial	24.3%	26.0%	21.8%



# GRE's Load Curves

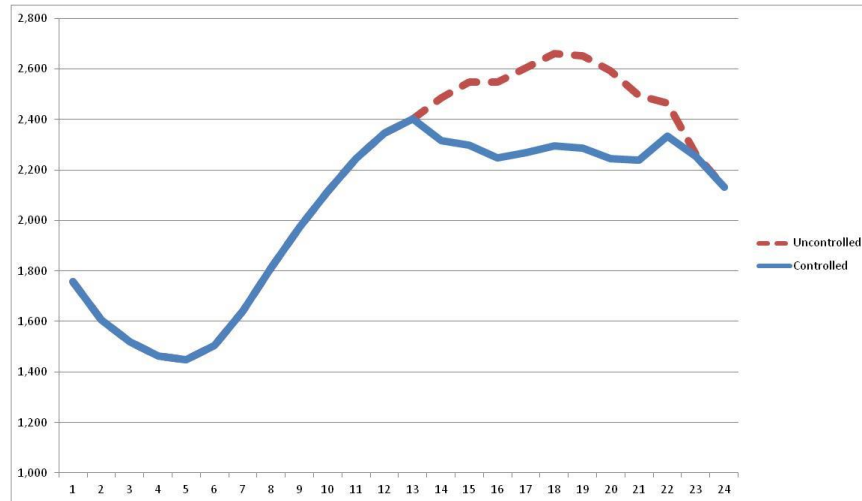


# Demand Side Management

*The ability to intentionally alter the shape of GRE's load curve*

## ■ Benefits

- Delays the need for future power plants
- Helps GRE avoid high-cost market energy purchases
- Reduces the load on the transmission system
- Reduces member energy bills



# Energy Savings Policy Goal

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- Minnesota Statute 216B.2401
  - Cost-effective energy savings are ***preferred*** over all other resources, and should be procured ***systematically and aggressively***.
  - It is the energy policy of the state of Minnesota to achieve ***annual*** energy savings equal to ***1.5%*** of electricity and natural gas sales.



# Member Energy Savings Goal

Member-Side  
Savings (1.0%)

- 114,208,000 kWh

Utility-Side  
Savings (.5%)

- 57,104,000 kWh

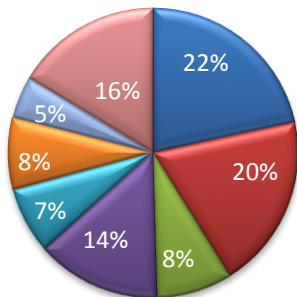
Savings Goal  
(1.5%)

- 171,312,000 kWh

# Energy efficiency programs

## Residential Energy Savings – Top Programs

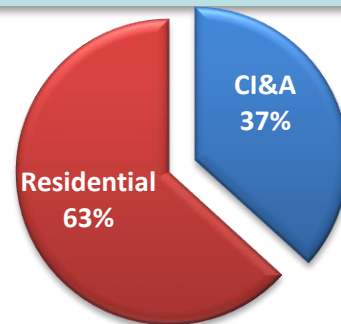
- GSHP
- ASHP
- Residential Behavior
- Lighting
- ENERGY STAR Appliances
- Income Eligible : Custom
- ECM Motor
- Other



## Rebate Spending

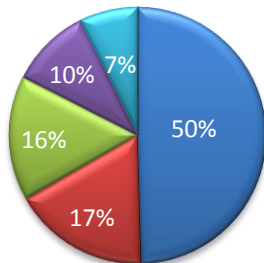
### Rebate Spending

- 2010: \$10M
- 2011: \$8M
- 2012: \$6M
- 2013: \$6M
- 2014: \$6M



## Commercial Energy Savings – Top Programs

- Lighting New Construction
- Custom Rebate
- Retrofit Lighting
- Motors & Drives
- Other



## Energy Efficiency Facts

- Met all spending requirements between 2010 and 2014
- Exceeded the energy savings goal in 2010 - 2013
- Total Savings in 2014 was approximately 1%

## Strategic Energy Sales – The Future

- Focusing on energy sales that result in productive load growth while helping to meet the CIP goals
  - ETS space & water heating
  - Electric Vehicles
  - Air source & ground source heat pumps (2014 Top Residential Programs)

**2014 Energy Savings Achievements**  
**107,435,692**

**1.0% Goal**  
**107,331,095**

Year	2014 Energy Savings Achievements	1.0% Goal
2008	~107,000,000	~112,000,000
2009	~105,000,000	~112,000,000
2010	~135,000,000	~112,000,000
2011	~115,000,000	~112,000,000
2012	~110,000,000	~112,000,000
2013	~125,000,000	~112,000,000
2014	107,435,692	107,331,095

# Thank You!

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