CENTER FOR ENERGY AND ENVIRONMENT

Joe Sullivan, Manager of Legislative and External Relations
Jamie Fitzke, Manager of Program and Policy

House Energy and Climate Finance and Policy Committee

January 29, 2019

cee
Center for Energy and Environment

Speaker Bios

Joe Sullivan

- Manager, Legislative and External Affairs
- Formerly with Flaherty and Hood P.A., representing
  - Coalition of Greater MN Cities
  - Missouri River Energy Services
- J.D., University of Wisconsin Madison

Jamie Fitzke

- Manager, Program and Policy
- 17 Years experience small business efficiency programs
- M.P.P., Humphrey Institute of Public Affairs, University of Minnesota

cee
Center for Energy and Environment

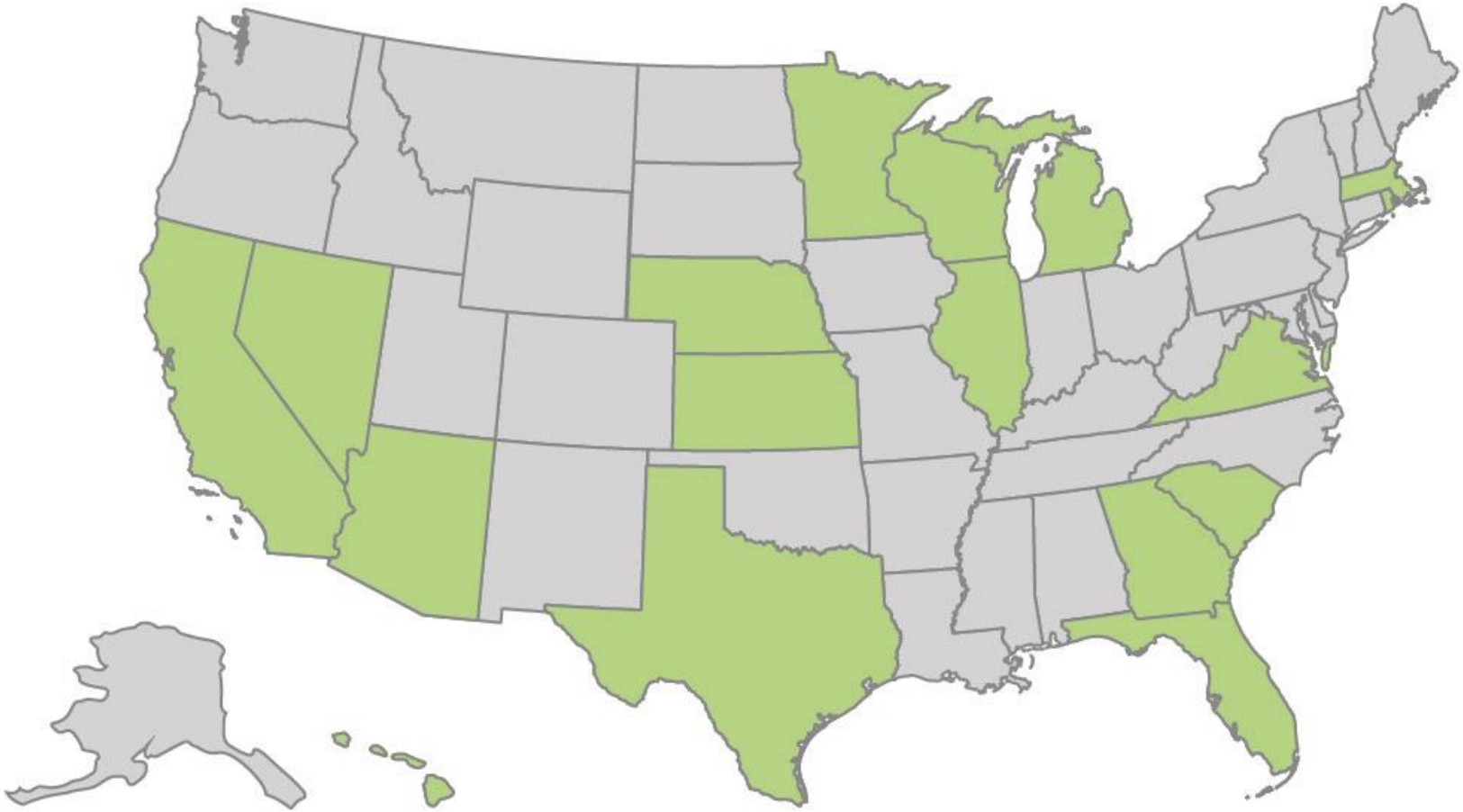
Cee's Approach

Data Driven

Community Based

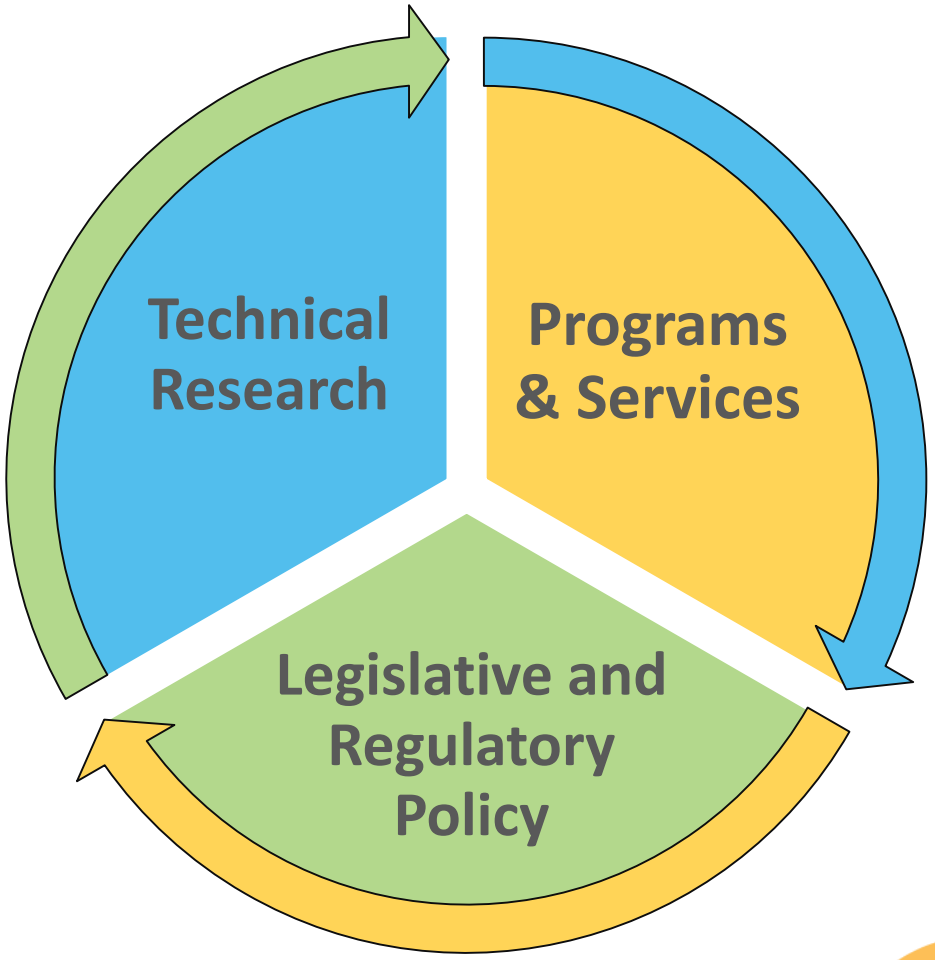
Consumer Focused

Our Impact Around the Country



cee
Center for Energy and Environment

Integrated Focus on Reducing Energy Waste



cee
Center for Energy and Environment

Technical Research

Current Examples:

- **Cold Climate Air Source Heat Pump Assessment**
  - w/ Great River Energy, Electric Power Research Institute
- **Field Study of a Moisture and Heat Transfer Furnace Retrofit Device**
  - w/ Gas Technology Institute
- **Field Study of Intelligent, Networked, Retrofittable Water Controller**
  - w/ Gas Technology Institute

Programs and Services

Award-Winning Programs

- **One Stop Efficiency Shop® for Small Business – Xcel Energy**
  - Small business customers of Xcel Energy will save over $800 million from the measures installed to date
- **Home Energy Squad – CenterPoint Energy and Xcel Energy**
- **Xcel Energy's Partners in Energy**
  - A two-year collaboration between a community and Xcel Energy to develop and implement a community's energy plan goals
  - Xcel Energy provides tools and resources to enable community-driven energy planning with support for implementation

Advanced Energy Projects

Minnesota Solar Pathways

Destination Medical Center (Rochester)

Minnesota e21 Initiative

Strategic Electrification

History of Utility Funded Efficiency in MN

1980: PUC directed to initiate a pilot to demonstrate the "feasibility" of investments in EE

1983: Utilities with revenues greater than $50 million were required to operate at least 1 conservation program. Required "significant" investment.

1989: All Public utilities were required to operate conservation improvement programs. Oversight transferred from PUC, low-income requirements added.

1991: A specific level of spending was required (1.5% electric, 0.5% gas) & munis and coops were included.

1994: Prairie Island settlement required [Xcel] to spend 2.0% of their annual GOR. Programs began to be evaluated against a pre-set goal.

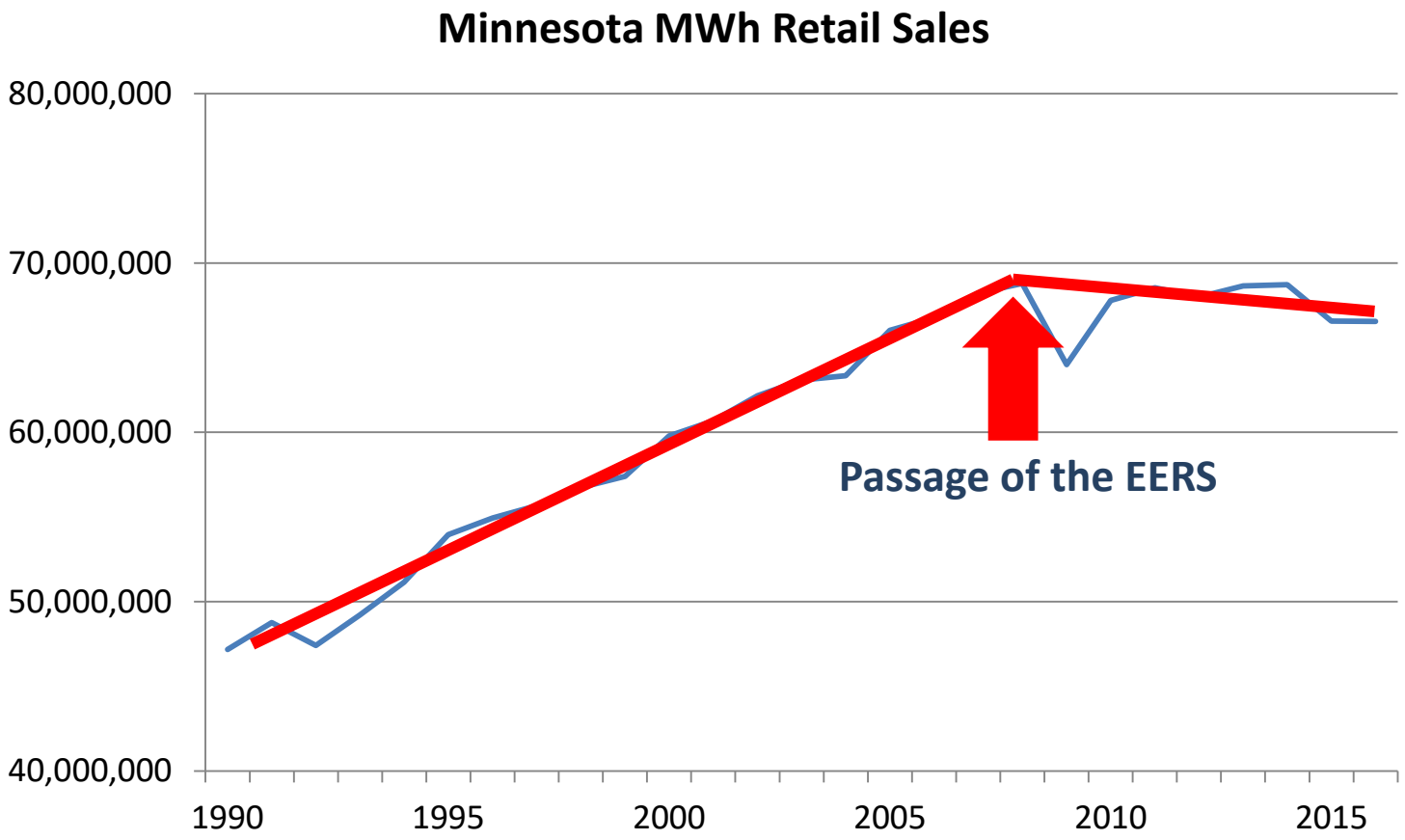
2007: 1.5% Savings Goal for Utilities is Enacted

2010: 1.5% Savings Goal for Utilities takes Effect

Center for Energy and Environment

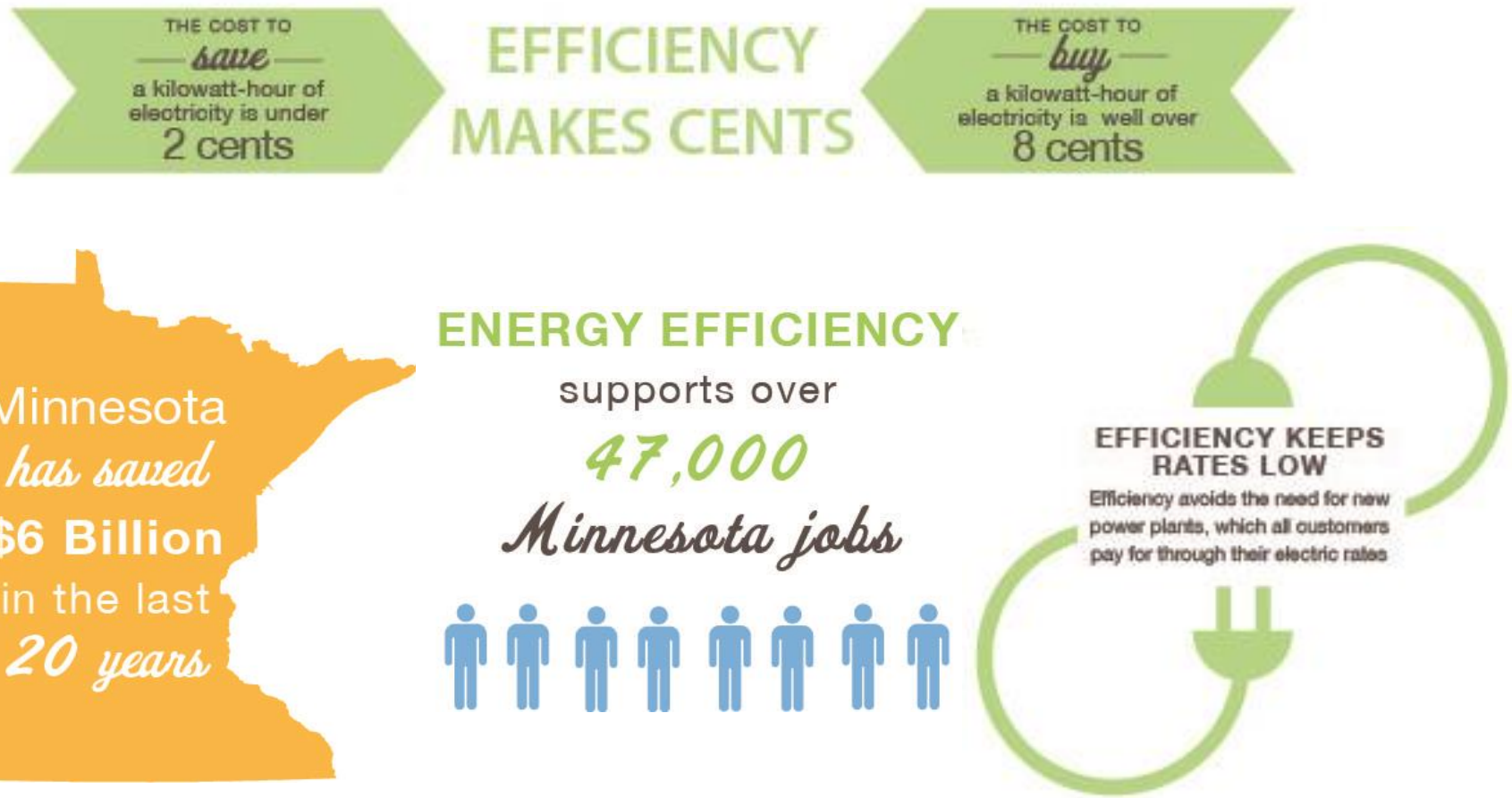
Credit: MN Department of Commerce

Load Growth Met By Efficiency



Center for Energy and Environment

Conservation Improvement Program (CIP)

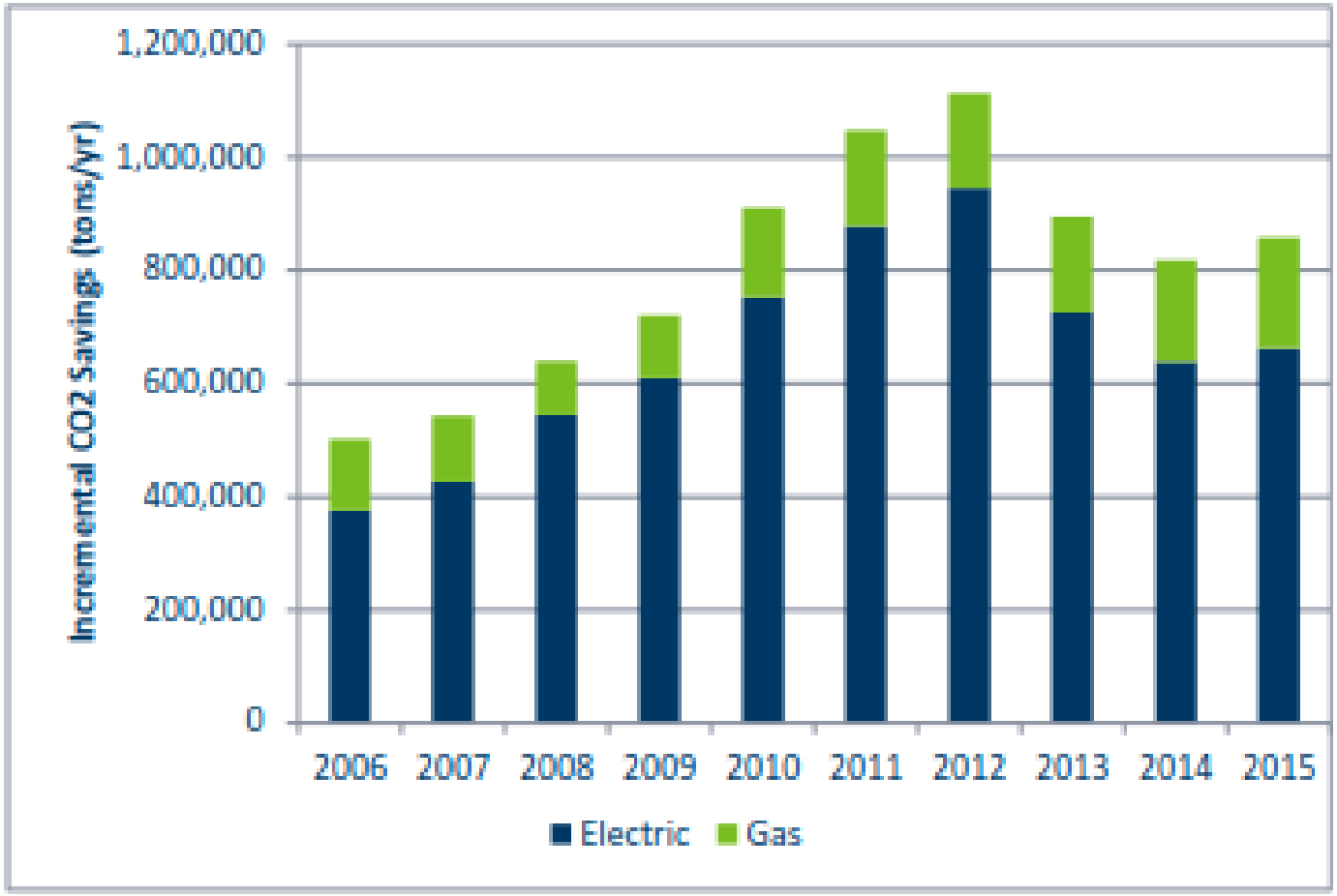


cee
Center for Energy and Environment

Benefits Of Energy Efficiency

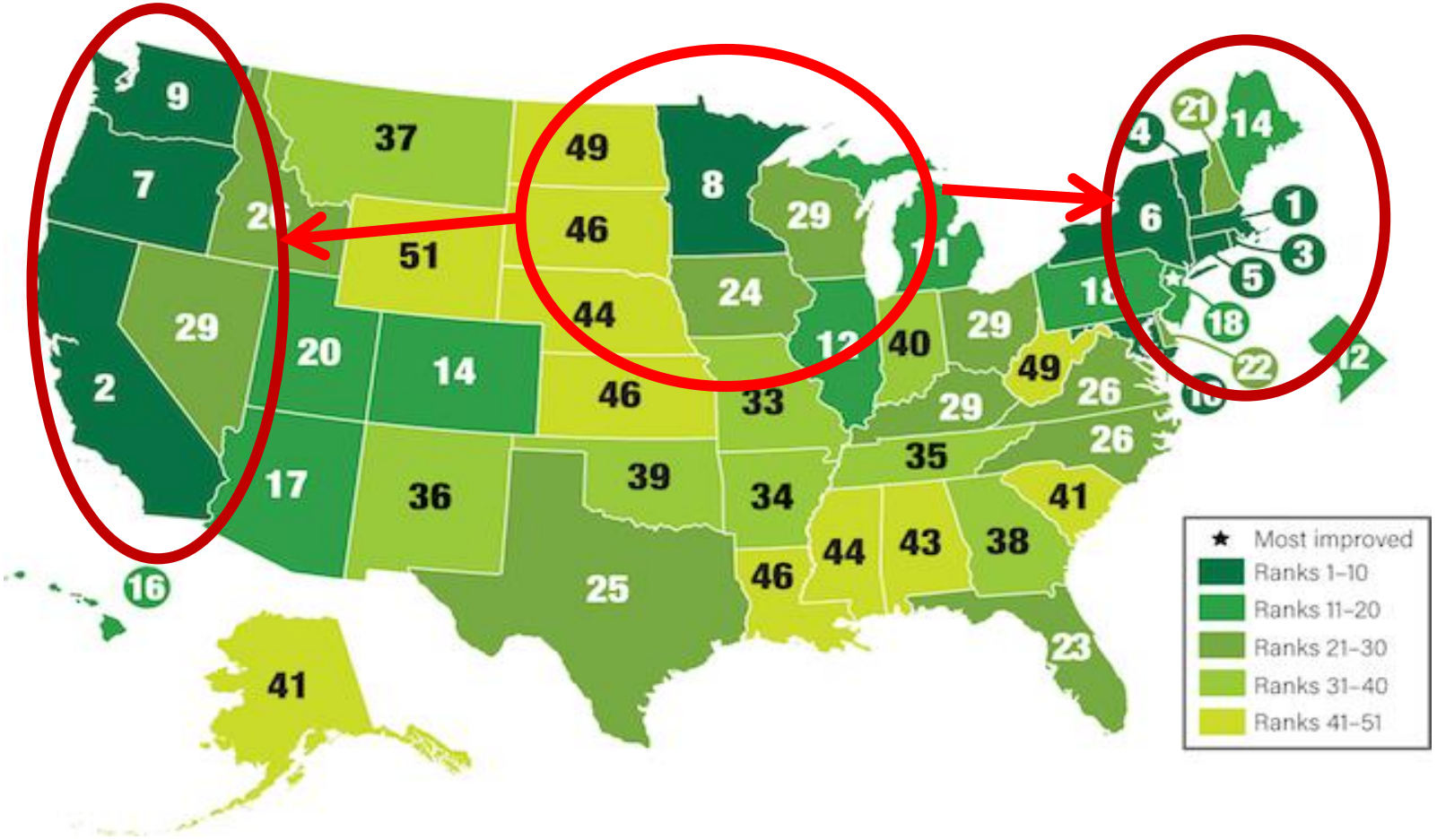
- Allows customers to control their energy bills
- Avoids or delays additional utility infrastructure investment
  - Reduces the cost of replacement resources
  - Reduces risks associated with resource replacement timing, cost, difficulty
- Reduces the wholesale cost of power supply by reducing demand
- Keeps energy dollars local

And Efficiency Avoids GhG Emissions



*Source: MN Dept. of Commerce, Division of Energy Resources
CIP - Energy Savings, CO2 Reductions and Economic Benefits Achieved 2014-2015, January 15, 2018

ONLY NON-COASTAL STATE IN ACEEE TOP 10

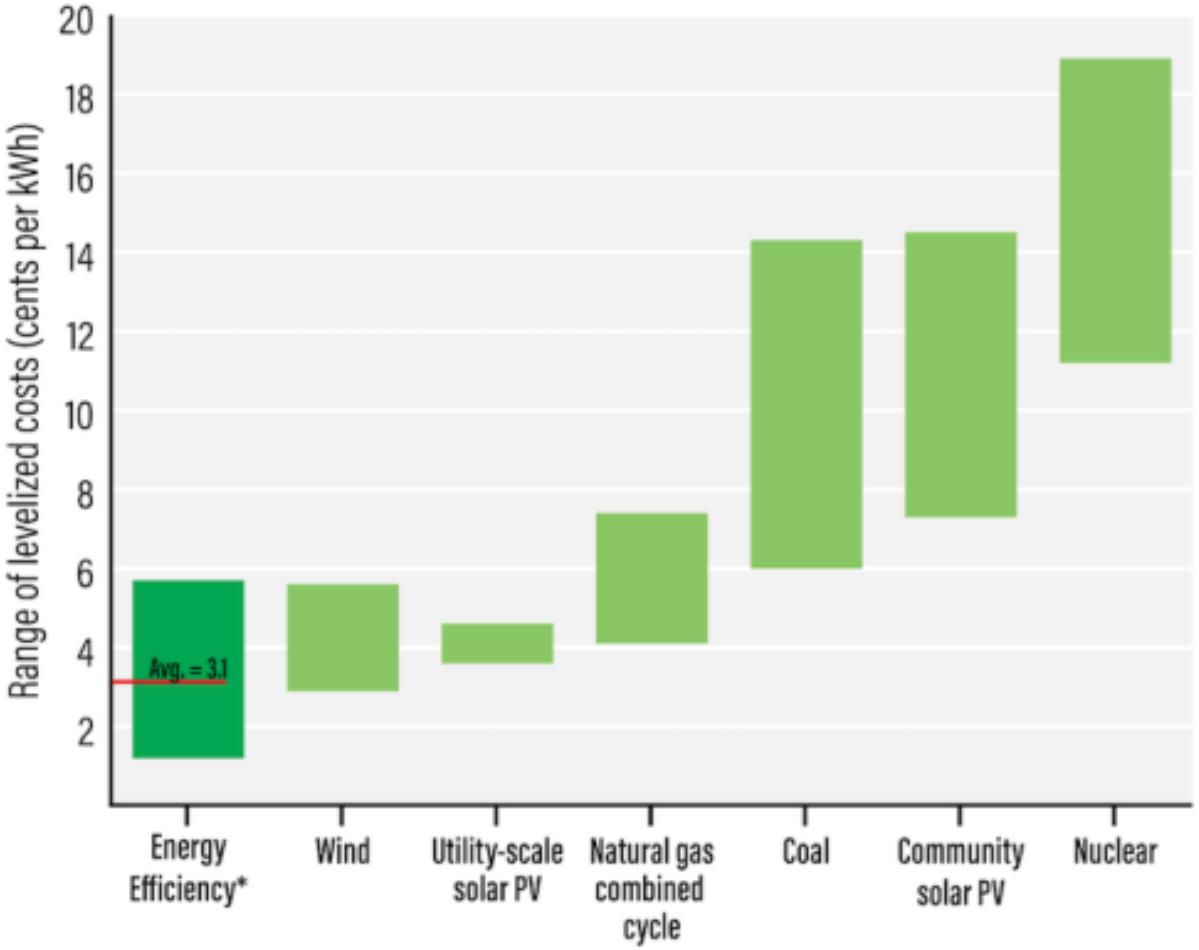


Source: ACEEE 2018 Energy Efficiency Scorecard: https://aceee.org/research-report/u1808

Cost of Efficiency in Minnesota

State	ACEEE Ranking	Electric spending ($/kWh)	Gas spending ($/therm)
Massachusetts	1	$0.34	$7.39
California	2	$0.35	$6.02
Rhode Island	3	$0.37	$5.89
Vermont	4	$0.39	$3.68
Oregon	5	$0.29	$3.56
Connecticut	6	$0.43	$6.17
Washington	7	$0.21	$3.83
New York	7	$0.27	$5.12
Minnesota	9	$0.19	$1.76
Maryland	10	$0.33	$9.88

Cost Effectiveness of Energy Efficiency

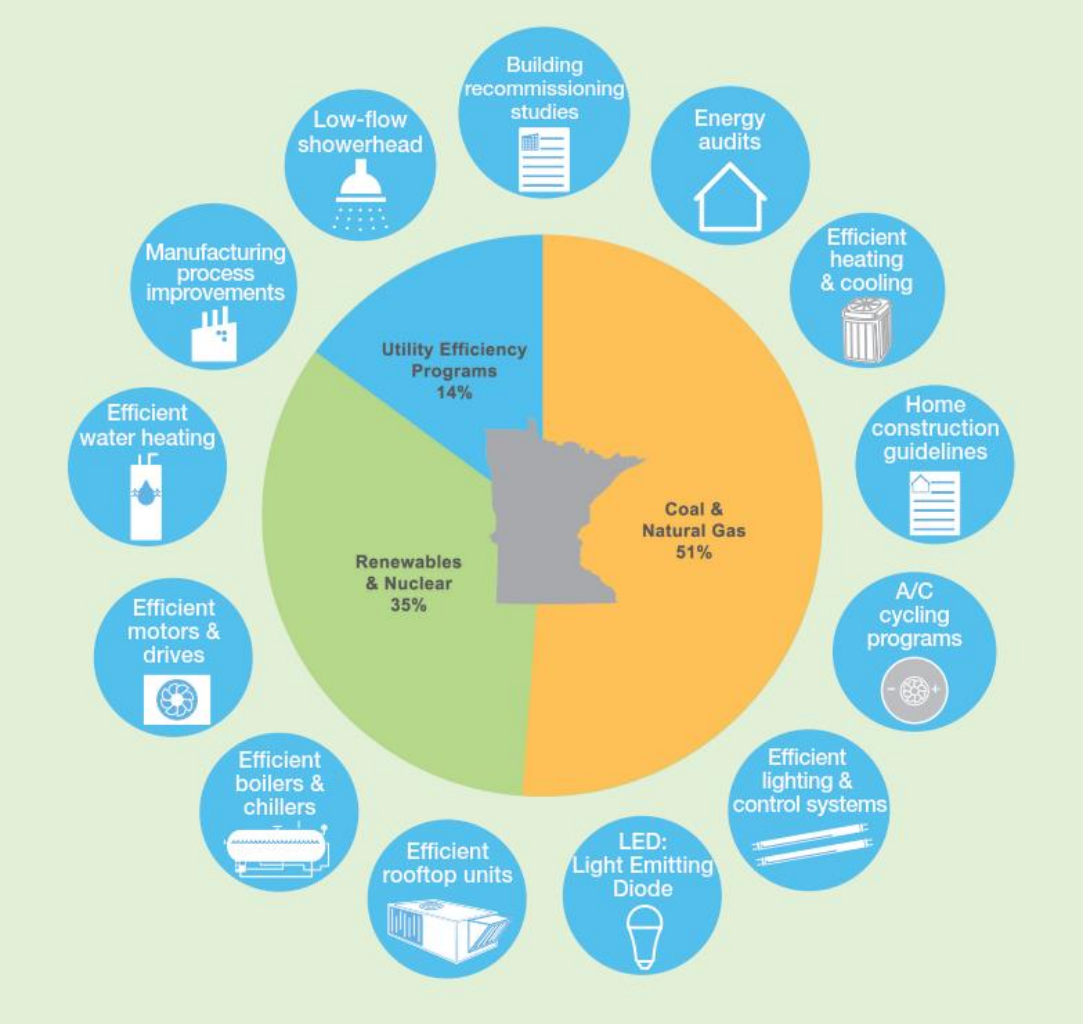


*Notes: Energy efficiency program portfolio data from Molina and Relf 2018. Represents costs to utilities or program administrators only, including shareholder performance incentives if applicable. All other data from Lazard 2018 Unsubsidized Levelized Cost of Energy Comparison.

cee
Center for Energy and Environment

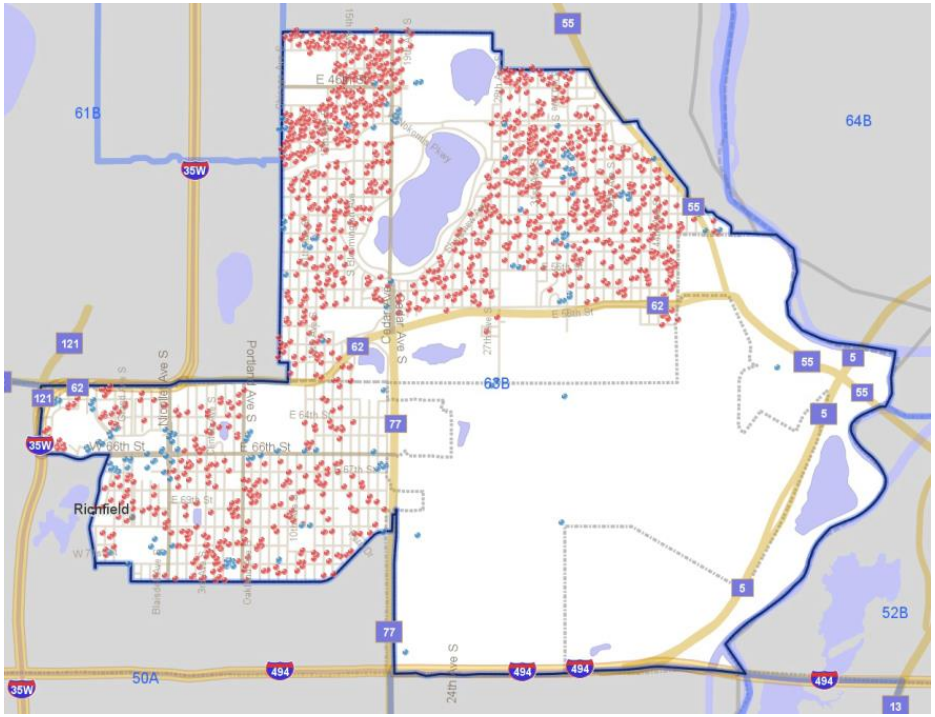
Source: https://aceee.org/blog/2018/12/renewables-are-getting-cheaper-energy

Conservation Improvement Program (CIP)



Center for Energy and Environment

House District 63B – Representative Jean Wagenius



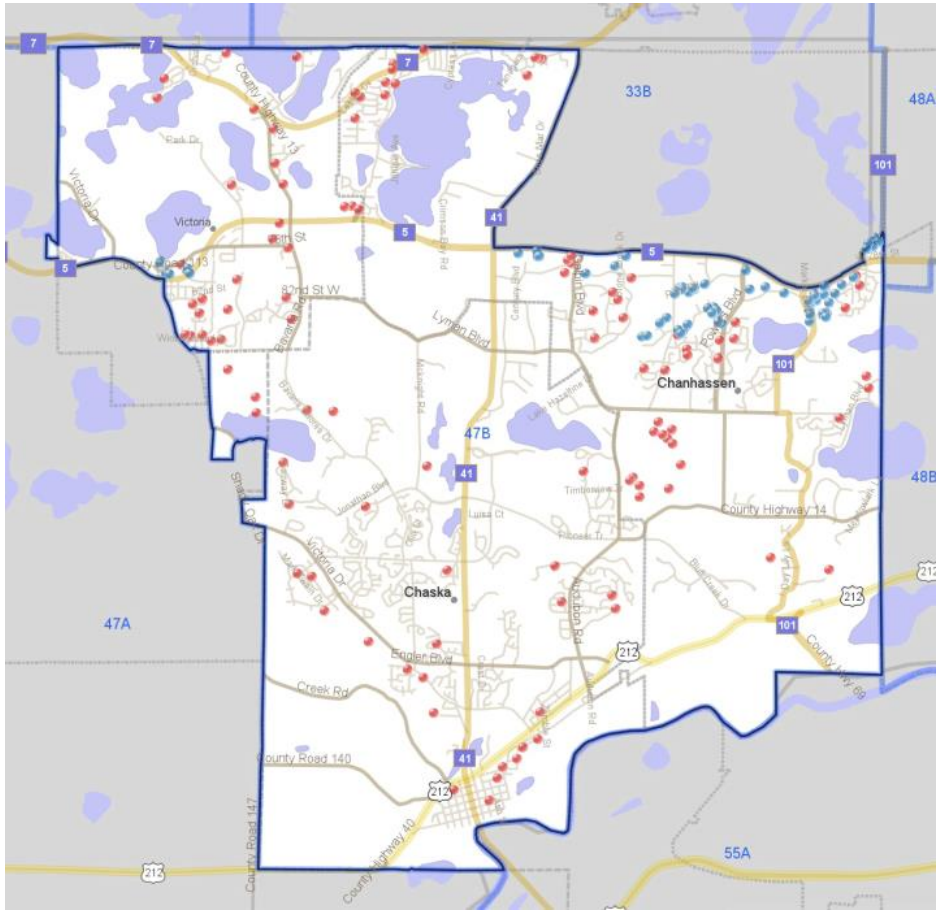
*Data Privacy: Locations are randomized

CEE CIP in District 63B

- 157 One Stop Efficiency Shop® jobs completed
- 1308 Home Energy Squad visits
- 4,587,639 total kilowatt-hours saved
- Over $456,000 in yearly electricity savings

Center for Energy and Environment

House District 47B – Representative Greg Boe



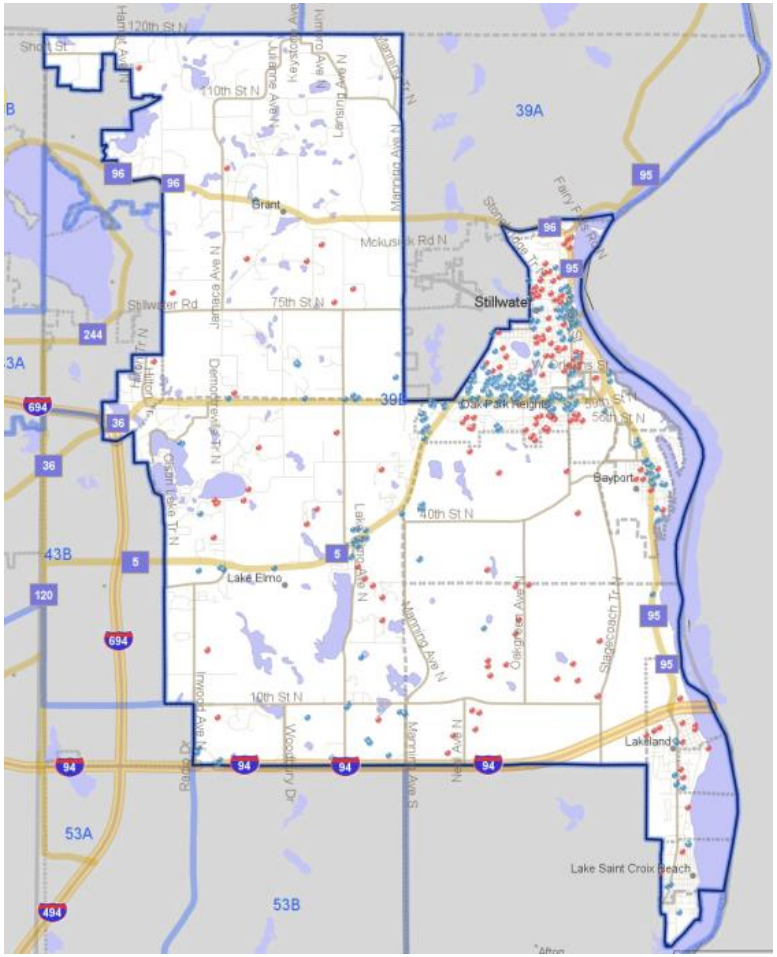
CEE CIP in District 47B

- 73 One Stop Efficiency Shop® jobs completed
- 113 Home Energy Squad visits
- 2,594,046 total kilowatt-hours saved
- Over $218,000 in yearly electricity savings

*Data Privacy: Locations are randomized

Center for Energy and Environment

House District 39B – Representative Michelle Christensen



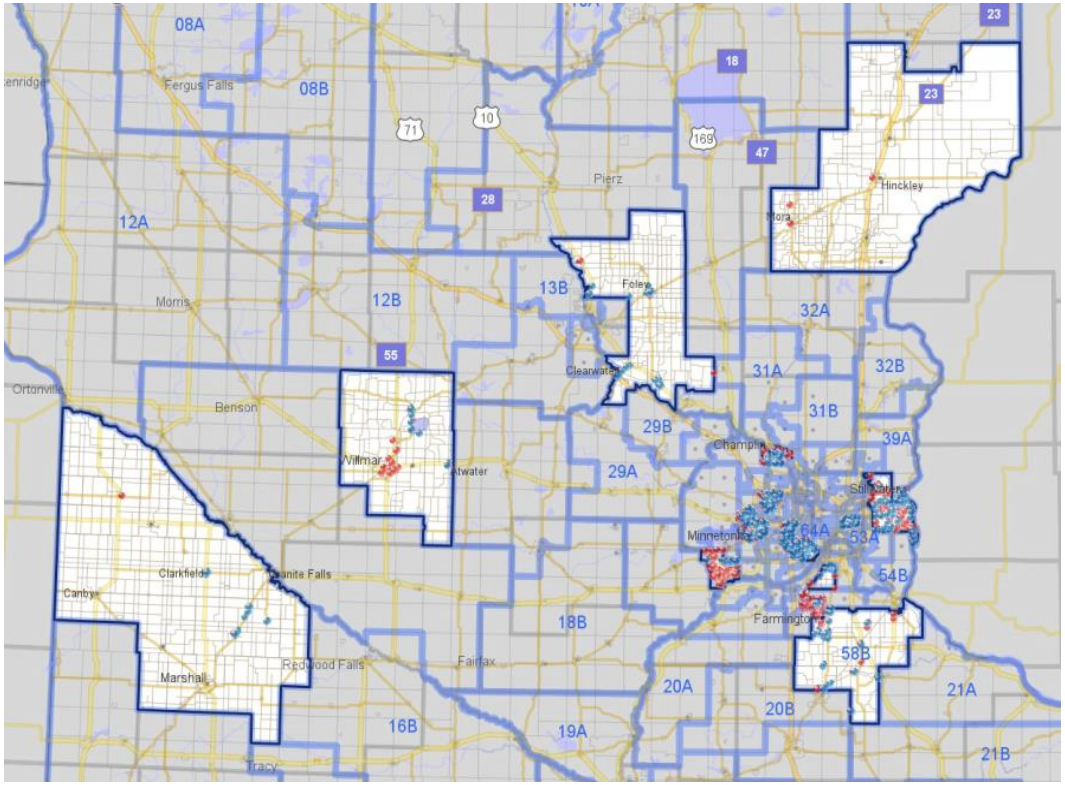
*Data Privacy: Locations are randomized

CEE CIP in District 39B

- 324 One Stop Efficiency Shop® jobs completed
- 160 Home Energy Squad visits
- 9,538,694 total kilowatt-hours saved
- Over $781,800 in yearly electricity savings

Center for Energy and Environment

Minnesota House Energy and Climate Committee



CEE CIP in MN House Energy and Climate Committee Districts

- 2,564 One Stop Efficiency Shop® jobs completed
- 6,100 Home Energy Squad visits
- 83,100,000 total kilowatt-hours saved
- Over $7,300,000 in yearly electricity savings

CEE Legislative Initiatives

- **Energy Conservation and Optimization ("ECO")**
  - Integrate Efficient Fuel Switching and Demand Response into CIP, while preserving MN's nation-leading efforts on Energy Efficiency
  - Arose from discussions with Potential Study Advisory Committee
- **Clean Energy First**
  - Require that whenever an electric utility has forecasted need for new generation, it must look first to fill that need through Clean Energy Resources
    - Renewable Energy, Efficiency, Demand Response and Energy storage
  - Enhance focus on community and worker transition planning, and transmission planning in advance of power plant retirements

We Look Forward to Working with You!

Center for Energy and Environment

THANK *you!*