



# COMMITTED TO MINNESOTA

## NULoop PARTNERS

AL SWINTEK  
LOCAL GOVERNMENT RELATIONS



January 28, 2020

# AGENDA

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1. **Company Overview**
2. **Commitment to Safety, Reliability, Affordability & the Environment**
3. **Innovative Technologies**
4. **Next steps ... What you can do to save energy and reduce GHG emissions**

# CENTERPOINT ENERGY AT A GLANCE

## 7+ MILLION CUSTOMERS



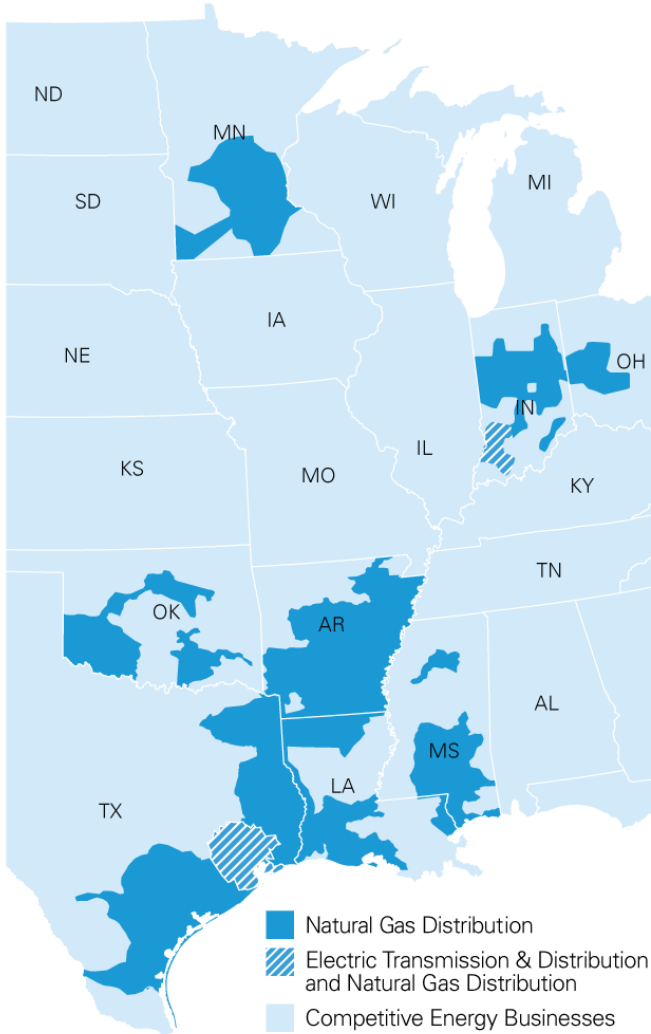
### Gas Utility Services

Regulated gas distribution jurisdictions in eight states with

- 4.5 million customers = 2<sup>nd</sup> largest in the U.S.
- 119,000 miles of pipe, largest in the U.S.

### Minnesota Gas

- 860,000 customers = largest in MN
- 260 communities
- 1,200 employees



(1) Operational data based on information as of December 31, 2017

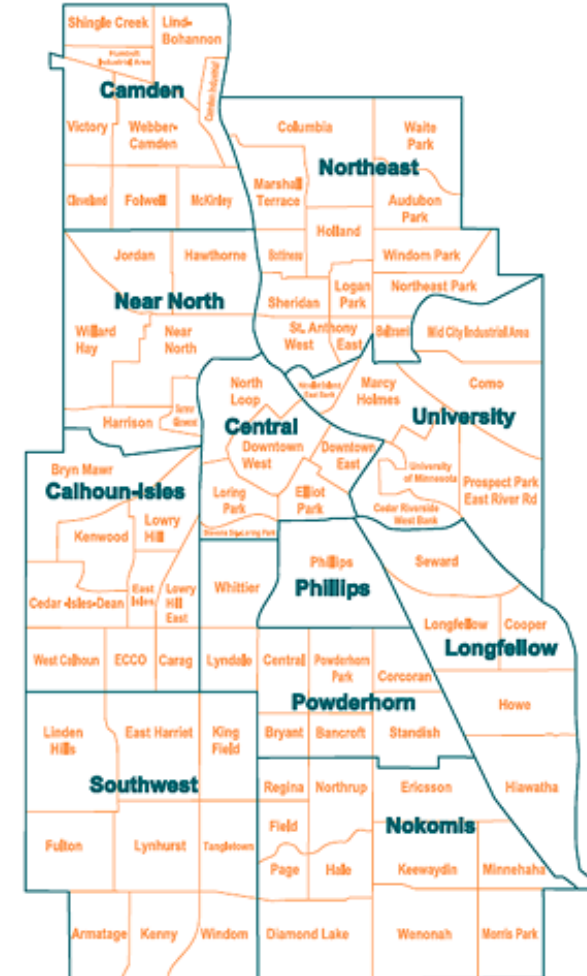
(2) Does not include approximately 72,000 natural gas customers as of December 31, 2017 that are under residential and small commercial choice programs invoiced by their host utility

# CENTERPOINT ENERGY - MINNEAPOLIS

## AT A GLANCE



- Minneapolis roots run deep
  - Founded in 1870 near the Guthrie
  - Over 725 Employees
  - 932 miles of gas main
  - Serving 133,600 homes / businesses
- Invested in Minneapolis
  - \$673 million infrastructure investment
  - \$3.3 million in taxes
  - \$8.8 million in franchise fees in 2018





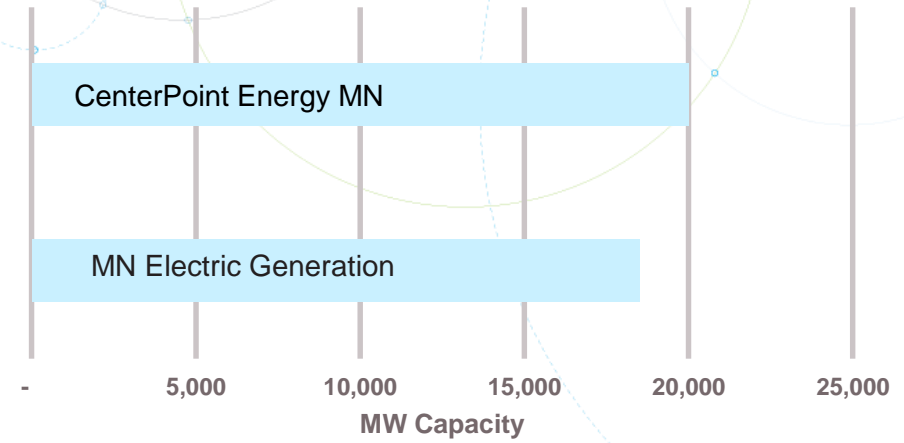
## HQ = 505 NICOLLET MALL, A LEED SILVER BUILDING



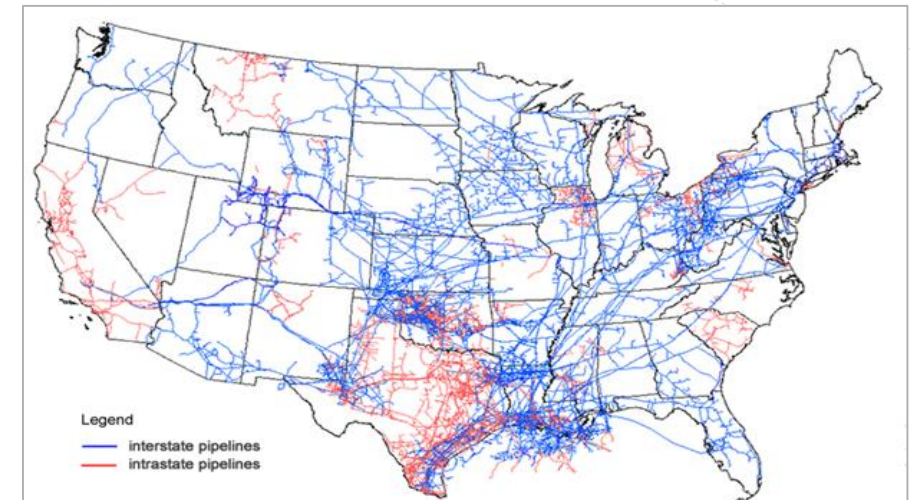
# COMMITTED TO RELIABILITY: COMPARING NATURAL GAS AND ELECTRIC GRIDS



- Minnesota's nameplate electricity capacity is 18,500 MW
- During the 2019 polar vortex **CenterPoint Energy alone delivered 1,495,000 Dth** (438,000 MWH) with maximum system load of 20,000 MW



## Map of U.S. Natural Gas Grid

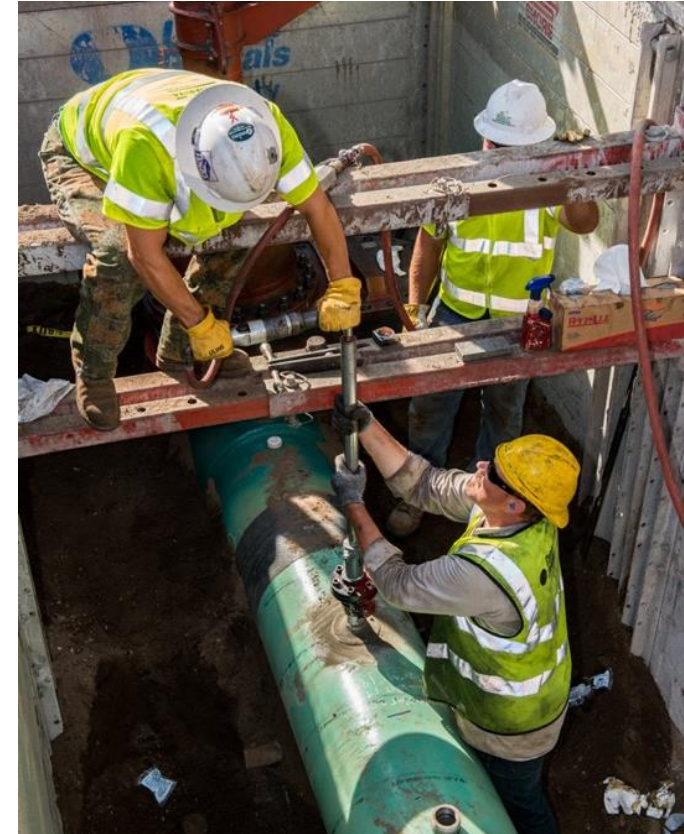


Sources: U.S. Energy Information Administration (EIA) [www.eia.gov/energyexplained/natural-gas/natural-gas-pipelines.php](http://www.eia.gov/energyexplained/natural-gas/natural-gas-pipelines.php), [https://www.eia.gov/todayinenergy/detail.php?id=21672#tabs\\_SpotPriceSlider-4](https://www.eia.gov/todayinenergy/detail.php?id=21672#tabs_SpotPriceSlider-4), and <https://www.eia.gov/electricity/data/state/>

# COMMITTED TO SAFETY & RELIABILITY: INVESTMENTS IN RESILIENCY



- \$1 billion invested in our Minnesota system since 2013
- \$1 billion investment anticipated for next 5 years
- Prioritizing Infrastructure Projects
  - Cast iron, Belt Line, Bare steel
- Rate Cases support ongoing infrastructure investments





# COMMITTED TO SAFETY: BEST PRACTICES

- Partnership with Gas Technology Institute
- New meter technologies
- Picarro = 1,000 x more sensitive
- Methane detectors



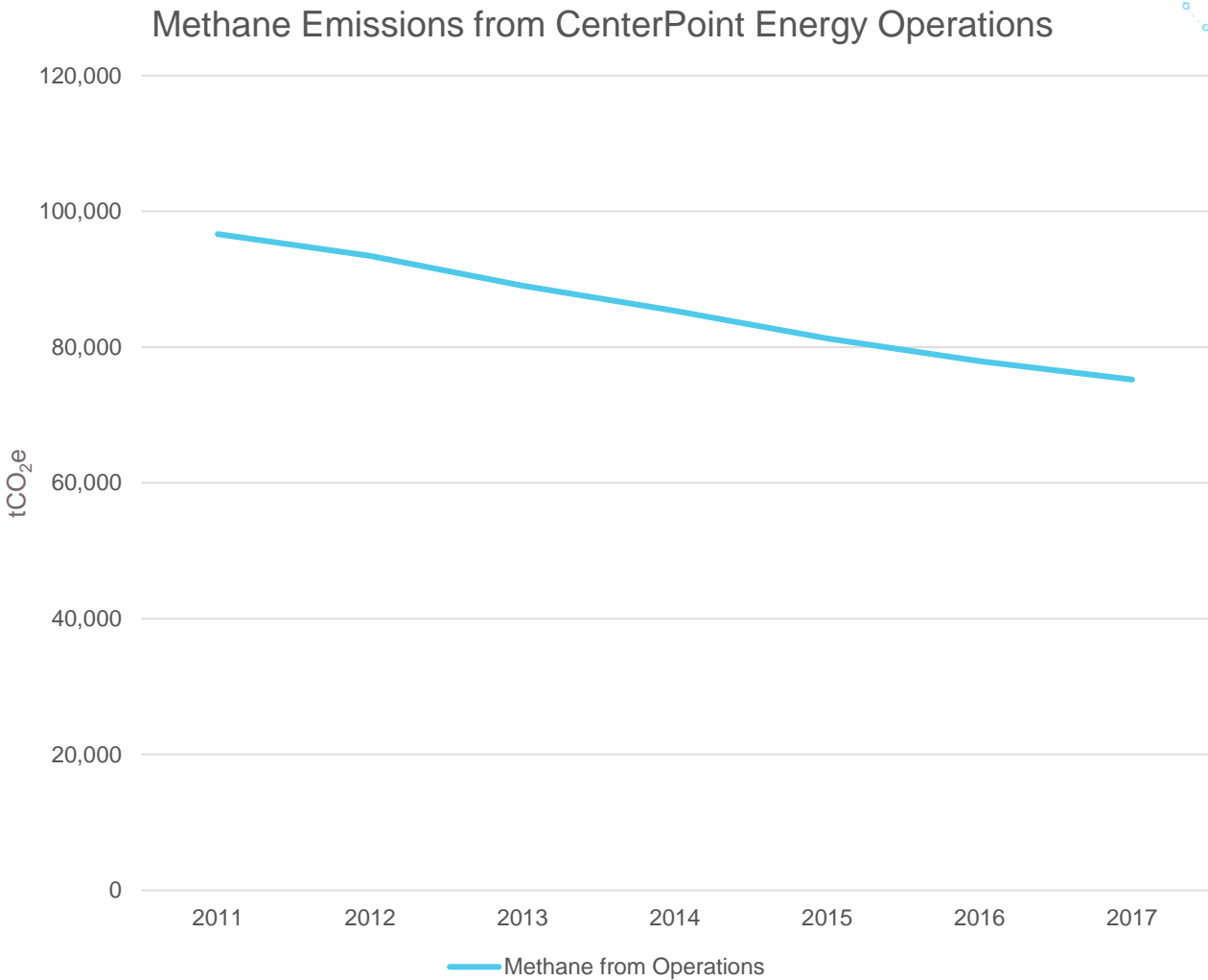
*New meter technology*

*Picarro*





# COMMITTED TO THE ENVIRONMENT: REDUCING EMISSIONS FROM OPERATIONS



Source: United States Environmental Protection Agency, Facility Level Information on Greenhouse gases Tool, <https://ghgdata.epa.gov/ghgp/main.do>.

# COMMITTED TO THE ENVIRONMENT:

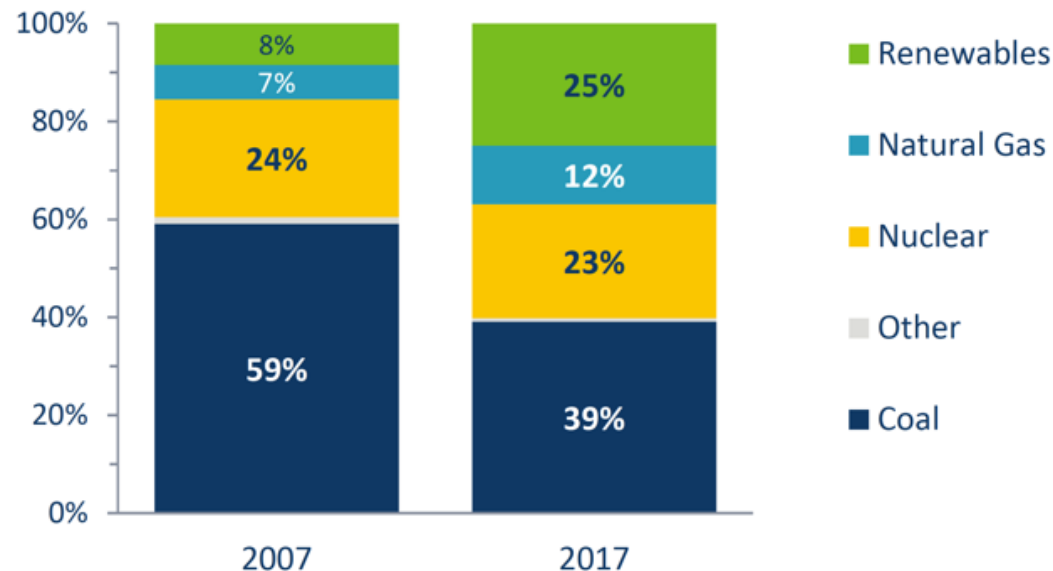
## REDUCING CARBON IN THE ELECTRIC GRID

Gas-fired electric generation enables rapid, short-term reductions in GHG.

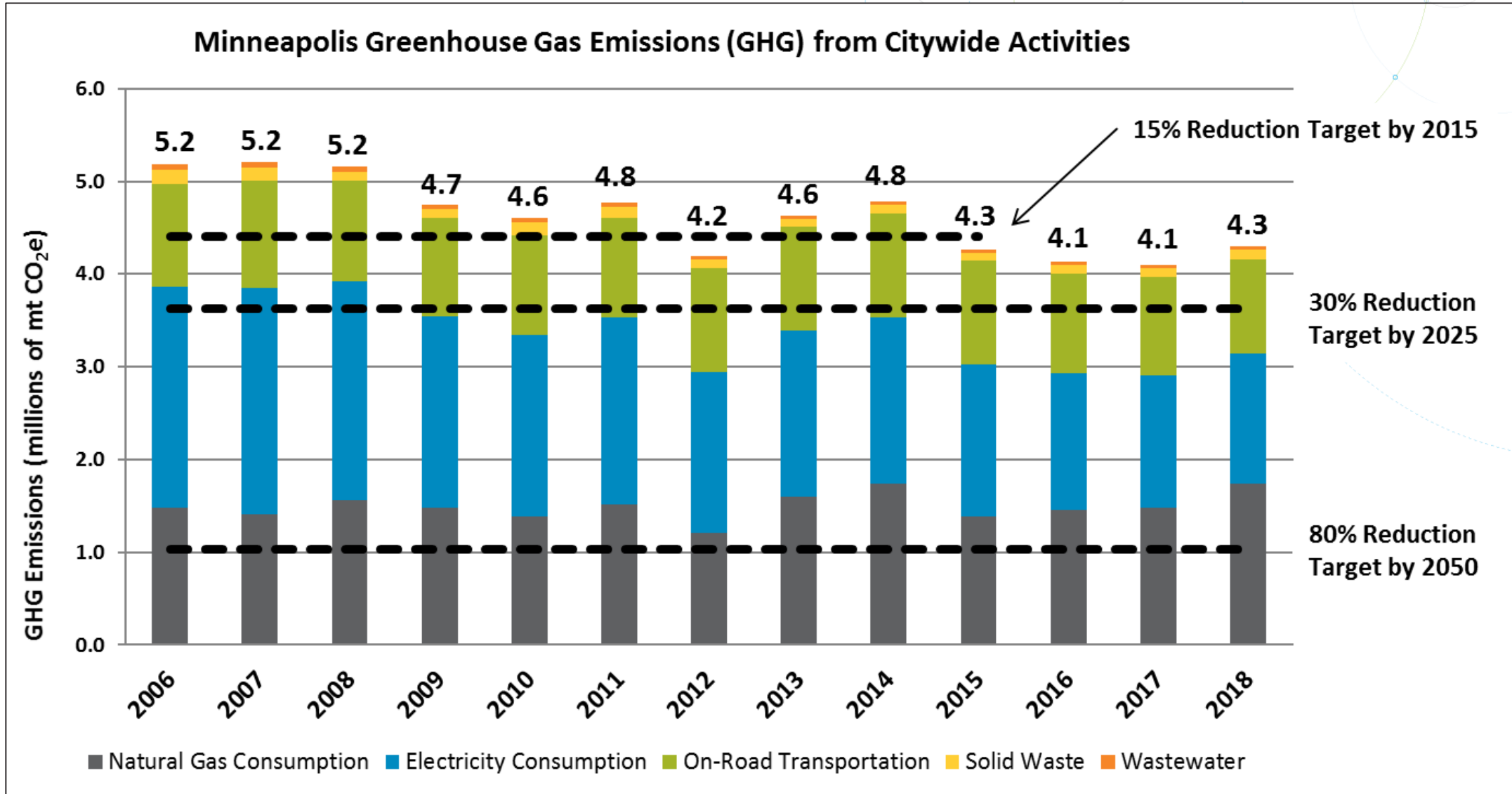
Emissions from natural gas generation are a small fraction of emissions from coal

- Overall emissions from electric generation in Minnesota have dropped 30% since 2005
- Emissions from natural gas increased 150% in the same period, but the gas emissions increase is more than offset by coal emissions reductions

**Minnesota's Electricity Generation Mix**  
(% Megawatthours, source: U.S. EIA)

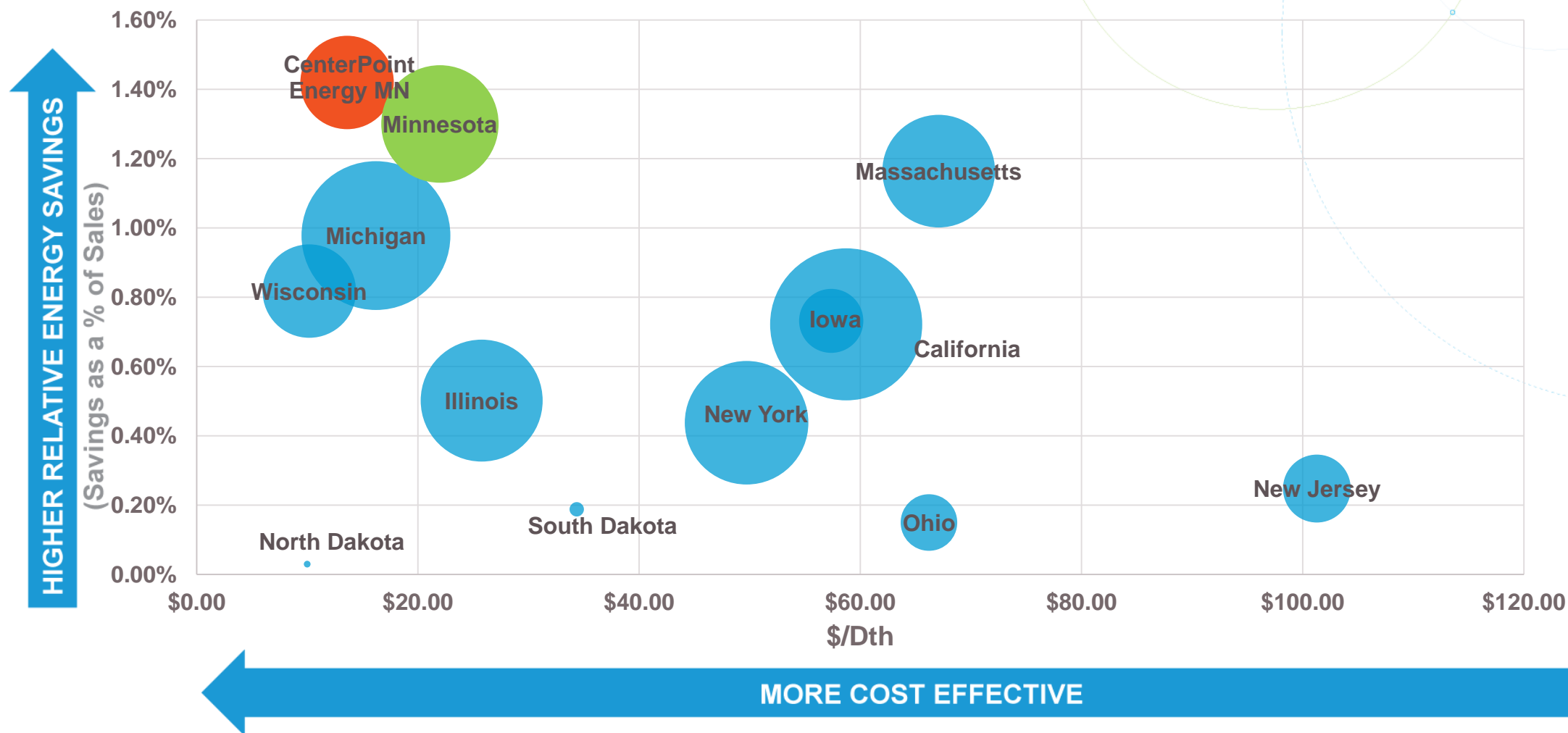


# MINNEAPOLIS GHG INVENTORY



# COMMITTED TO THE ENVIRONMENT: COST-EFFECTIVE ENERGY EFFICIENCY

2013-2017 Average Energy Efficiency Performance of Natural Gas Utilities,  
Average Annual Dth Savings (bubble size)

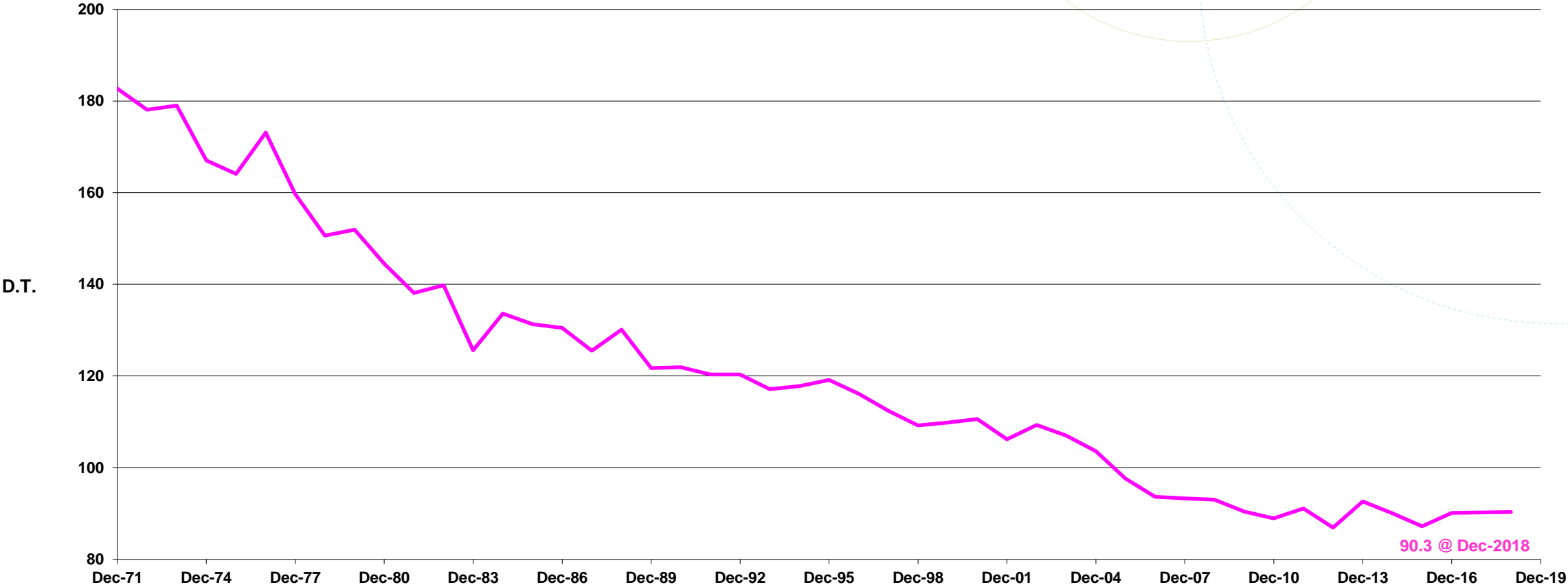




# SIGNIFICANT PROGRESS ... WITH MORE TO DO



**Weather Normalized Natural Gas Consumption  
Per Residential Customer (10 Years Normal Weather), 1971-2018, at Year End**



# COMMITTED TO THE ENVIRONMENT: EXPLORING CLEAN-ENERGY INNOVATION



- Energy Efficiency
- Low-Carbon Gas
  - RNG
  - Hydrogen
  - Power to Gas
- Carbon Offsets
- Carbon Capture (Clean O2)
- Gas Heat Pumps
- Gas/Electric Heat Pumps
- Community Thermal Loops

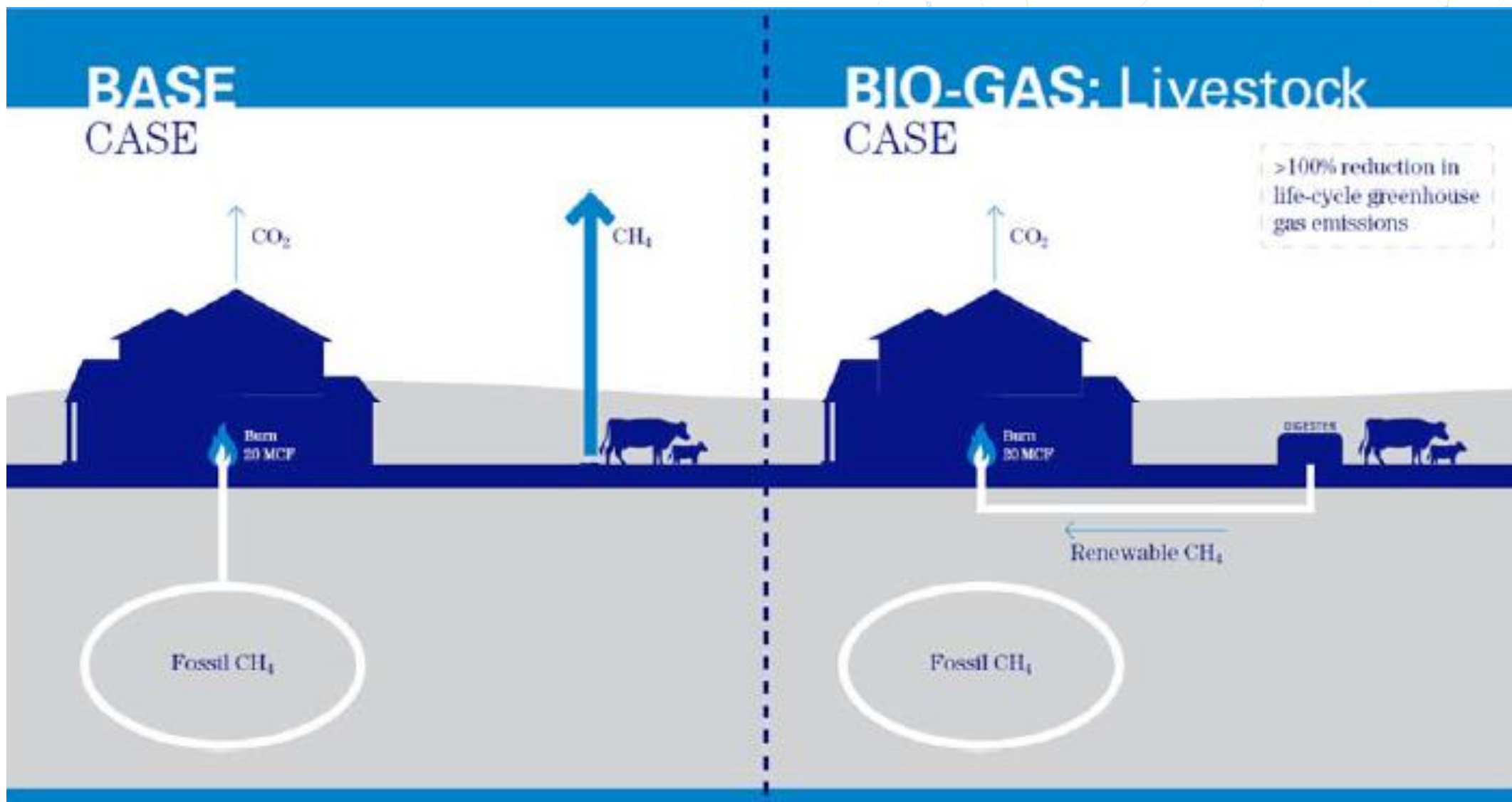


*Power-to-Gas technology*



*Clean O2 technology*

# COMMITTED TO THE ENVIRONMENT: BENEFITS OF RNG



# COMMITTED TO THE ENVIRONMENT: WHAT IS CLEANO<sub>2</sub>'S TECHNOLOGY?

- **Canadian start-up company**
  - Maker of the CARBiNX unit
- **Heat Recovery Unit**
  - Saves up to 20% in energy costs by increasing water heating efficiency
- **Carbon Capture/Conversion Unit**
  - Reduces up to 20% of CO<sub>2</sub> emissions
- **Commercial Unit for:**
  - Boilers or hot water tanks: ~0.5-1.5 mmBtu
    - Non-condensing, mid-efficiency
  - Multi-family, malls, schools, hospitals, fitness centers, etc.



Clean O2's CARBiNX technology



# CENTERPOINT ENERGY

## LOCAL EFFORTS / BIG IMPACT



Energy Data  
Access &  
Benchmarking  
Resources  
*2019*

**\$20 Million**  
invested in  
Minneapolis  
Energy  
Conservation  
*2016-2018*

**20%**  
Reduction in  
MN pipeline  
emissions  
*Since 2011*

**EZ Pay On-Bill  
Program**  
*Coming Soon!*

**12.3%**  
of Total CIP Vendor  
Spend went to  
Minority and Women-  
owned Business  
Enterprises  
*2018*

**AchieveMpls  
Community  
Partner Ally**  
*2019*

**20+  
Energy  
Efficiency  
Programs**

**\$2 Million**  
CIP Rebate for  
U of M CHP  
*2017*

**Home Energy  
Squad Pilot**  
*2015/16*



# CALL TO ACTION – LOWER YOUR COST & GHG EMISSIONS

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- Commercial
  - Natural Gas Energy Analysis (\$200 for \$1,300)
  - Engineering and Certification Assistance – ENERGY STAR, LEED Certification, etc.
- Industrial
  - Process Efficiency and Steam Trap Audit Programs
  - Process equipment and custom rebates
- Multi-Family
  - Building Efficiency Program – 25% EE savings = 40% rebate. Rebates double for affordable housing.
- Numerous programs, equipment rebates and services for I/C, Food Service, and Residential customers
- For more info: [www.CenterpointEnergy.com/saveenergy](http://www.CenterpointEnergy.com/saveenergy)