COMMITTED TO MINNEAPOLIS
NOVEMBER 14, 2019

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VICE PRESIDENT, MINNESOTA GAS OPERATIONS

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AGENDA

• CenterPoint Energy Overview
• Our Commitments to Safety, Reliability, and Affordability
• Our Environmental Stewardship
• Looking to the Future
CENTERTPOINT ENERGY AT A GLANCE
7+ MILLION CUSTOMERS

Gas Utility Services
Regulated gas distribution jurisdictions in eight states with
- ~ 4.5 million customers, second largest in the U.S.
- ~ 119,000 miles of pipe, largest in the U.S.

Minnesota Gas
Largest Gas distribution business in Minnesota with
- ~ 860,000 customers
- ~ 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
COMMITTED TO RELIABILITY: COMPARING NATURAL GAS AND ELECTRIC GRIDS

Map of U.S. Natural Gas Grid

Map of U.S. Electric Grid

- 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

COMMITTED TO SERVICE: ALIGNING WITH CITY ENERGY VISION

CenterPoint Energy Objectives

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<td>Maximize Affordability</td>
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City of Minneapolis Energy Vision

I. Vision Statement

In 2040, Minneapolis’s energy system will provide reliable, affordable, local and clean energy services for Minneapolis homes, businesses, and institutions: sustaining the city’s economy and environment and contributing to a more socially just community.
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!
- $2 Million CIP Rebate for U of M CHP 2017
- 12.3% of Total CIP Vendor Spend went to Minority and Women-owned Business Enterprises 2018
- 20+ Energy Efficiency Programs
- AchieveMpls Community Partner Ally 2019
- Home Energy Squad Pilot 2015/16
- $2 Million CIP Rebate for U of M CHP 2017
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 Integrity Projects – Risk Ranking
  – Cast iron
  – Belt Line replacement
  – Bare steel
• Rate Cases support ongoing infrastructure investments
• Maximizing affordability
COMMITTED TO SAFETY:  
THE BELT LINE PROJECT

Belt Line Work and Replacement

- Installed in 1950s
- Ongoing replacement since 2012
- Other integrity work on Belt Line

- 2019 work in Wards 5 & Wards 8, 9, and 11
- 2021 work in Wards 1 and 3
COMMITTED TO SAFETY:
BEST PRACTICES

• Partnership with Gas Technology Institute
• New meter technologies
• SCADA field technologies
• Picarro
• Methane detectors
• EOP scenario testing
COMMITTED TO THE ENVIRONMENT: REDUCING EMISSIONS FROM OPERATIONS

Methane Emissions from CenterPoint Energy Operations

Minneapolis Greenhouse Gas Emissions (GHG) from Citywide Activities

- **GHG Emissions (millions of mt CO₂e)**
- **2006:** 5.2
- **2007:** 5.2
- **2008:** 5.2
- **2009:** 4.7
- **2010:** 4.6
- **2011:** 4.8
- **2012:** 4.2
- **2013:** 4.6
- **2014:** 4.8
- **2015:** 4.3
- **2016:** 4.1
- **2017:** 4.1
- **2018:** 4.3

- **15% Reduction Target by 2015**
- **30% Reduction Target by 2025**
- **80% Reduction Target by 2050**

Legend:
- Natural Gas Consumption
- Electricity Consumption
- On-Road Transportation
- Solid Waste
- Wastewater
COMMITTED TO THE ENVIRONMENT:
COST-EFFECTIVE ENERGY EFFICIENCY

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

COMMITTED TO THE ENVIRONMENT:
EXPLORING CLEAN-ENERGY INNOVATION

- Energy Efficiency
  - CHP
- Low-Carbon Gas
  - Renewable Natural 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 MINNEAPOLIS: IMAGINING AN ENERGY FUTURE

Possible Future Resource Mix?


MPLS 2050 Target
ENGAGING WITH OTHERS

- e21: Decarbonizing MN Natural Gas End Uses
- Renewable Natural Gas Forum
- Minnesota Multifamily Affordable Housing Energy Network
- Midwest Energy Efficiency Alliance
- Engaging customers, regulators, legislators, and other stakeholders