



CenterPoint Energy's Innovation Plan

Advancing decarbonization efforts in Minnesota

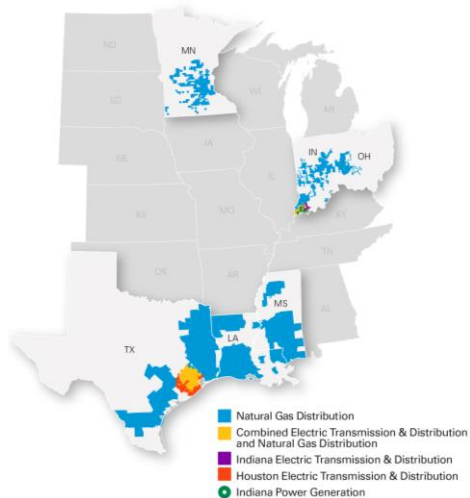
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Who we are

- Largest natural gas utility in Minnesota
 - 14,000-mile pipeline system
- Serve more than 910,000 customers and 260+ communities
- 1,200+ employees, nearly 70% union



Natural Gas Innovation Act (NGIA) background

- Legislation passed in June 2021 with bipartisan support
- Allows investor-owned natural gas utilities to submit Innovation Plans to the Minnesota Public Utilities Commission (PUC)
- Establishes regulatory framework to deploy **renewable energy resources** and **innovative GHG reduction technologies**
 - Cost-recovery: rate base, purchased gas adjustment or separate tracker (rider)
- Multiple pathways to reduce emissions while providing reliable, cost-effective energy – especially the coldest Minnesota days

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NGIA innovative resources

- Supply-side
 - Biogas
 - Renewable natural gas (RNG)
 - Power-to-hydrogen (green hydrogen)
 - Power-to-ammonia (green ammonia)
 - District energy (networked geothermal)
- Demand-side
 - Energy efficiency
 - Carbon capture
 - Strategic electrification

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Innovation plan timeline

June 2021	June 2022	Summer 2022 – Spring 2023	Summer 2023	Fall 2023 – Summer 2024	2024 – 2029	Summer 2028
NGIA passed and signed into law	PUC approves carbon accounting and cost-benefit accounting	CenterPoint develops innovation plan, public engagement meetings	Submitted innovation plan to the PUC	Public comment and PUC review	Implement 5-year innovation plan, subject to PUC approval	Submit second innovation plan to the PUC

- Initial comment period closed: Jan. 15, 2024
- Reply comment period close: March 15, 2024
- Supplemental comment period close: May 15, 2024



First innovation plan submitted to the PUC in June 2023

Renewable Natural Gas (RNG)  RNG Produced from Metro Area Counties' Organic Waste Request for Proposals	Power-to-Hydrogen  Green Hydrogen Blending Industrial or Large Commercial Hydrogen Incentives	Strategic Electrification  Industrial, Commercial and Residential Heat Pumps	District Energy  New Networked Geothermal Decarbonizing Existing Systems	Carbon Capture  Urban Tree Carbon Offsets Carbon Capture Incentives Methane Leak Reduction	Energy Efficiency  GHG Audits (Small/Medium Business and Industrial) Deep Energy Retrofits
Research and Development  Net Zero Study, High Performance Building Envelopes, Weatherization Blitzes, RNG Study, Green Ammonia, Carbon Capture					

Investing in made-in-Minnesota resources

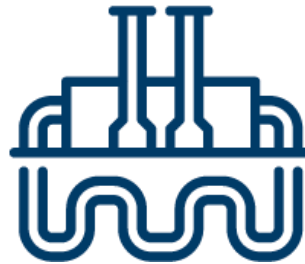
- Purchasing pipeline-quality renewable natural gas
- Green hydrogen blending pilot, produced from on-site solar



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Installing new district energy systems

- **CenterPoint Energy-owned networked geothermal system**
 - Develop in a neighborhood (yet to be identified) in our existing service territory
- **Customer-owned networked geothermal systems**
 - Large business/school campuses or business developments provide opportunities



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Hybrid heating

- **Commercial focus:** electric air source heat pumps with supplemental natural gas heating, rooftop units
- **Residential focus:** electric air source heat pumps with supplemental natural gas heating, along with deep energy retrofits



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Industrial decarbonization efforts

- 31%* of Minnesota natural gas-related emissions in 2020 were from industrial customers
- We propose the following efforts for these customers:
 - Green hydrogen
 - Carbon capture
 - Industrial electric heat pumps
 - Innovative energy efficiency
 - Behind-the-meter methane leak detection



*Minnesota Pollution Control Agency Data: [GHG emissions data](#) | Tableau Public

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Innovating with customer affordability in mind

- **Proposed budget:** \$106 million over five years
- **Federal funding opportunities:** expected to leverage \$17 million or more in federal incentives
- **Estimated customer impact:** <\$1.50/month for a standard residential customer monthly bill

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Our innovation plan's value to Minnesota

- **Reduces 1.2 million metric tons CO₂e** over the lifetime of the proposed projects
 - Equal to about 14% of total emissions from natural gas supplied to our Minnesota customers in 2020 or the energy use of 150,000 homes
- Creates economic benefits and an **estimated 3,000 full time equivalent jobs**
- Advances emerging technologies to **support long-term emissions reductions**
- Reuses and **reduces waste**
- **Invests in made-in-Minnesota** low- and zero-carbon resources

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Thank you!



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