2024-2028 COLORADO CLEAN HEAT PLAN

INNOVATIVE SOLUTIONS TO REDUCE GREENHOUSE GAS EMISSIONS



Colorado has set out a bold vision for a clean energy future by transforming our energy system. To achieve that vision, Xcel Energy is striving to operate the cleanest natural gas system possible, while continuing to serve our Colorado customers with reliable and affordable energy to power their lives.

Our existing natural gas system, working together with newer solutions, can deliver for customers today while working toward our 2030 carbon emission reduction goals and 2050 net-zero carbon energy vision. Specifically, our Clean Heat Plan offers a portfolio of solutions so more customers can choose options that work for them — leading to greater emission reductions at lower cost. Our plan is designed to make smart decisions to ensure the stability and affordability of the system, while also partnering with others to fast track clean, resilient, innovative solutions.

This plan will expand customers' clean energy options rather than limiting them. It will also reduce emissions by ensuring customers have clean energy solutions that meet their needs, while keeping energy costs affordable.



Advancing emissions reduction goals

This effort is in response to Colorado's Clean Heat Standard legislation, which aligns with the company's net-zero natural gas vision and sets a flexible path for the state to reduce greenhouse gas emissions 22% by 2030 (from 2015 levels). By developing a portfolio of solutions, we can advance potential clean energy options, offer choices customers want and deliver new programs to help achieve these goals.

Our plan presents several clean heat portfolios for consideration, each presenting a different set of available customer options. Our preferred Clean Heat Plus portfolio is the most cost-effective option presented and uses a comprehensive set of resources to help us achieve our clean heat goals, including:

- Electrification: Replacing fossil fuel use with electricity to reduce emissions
- Energy Efficiency: Reducing energy use in homes and buildings through weatherization and other measures
- **Recovered Methane:** Intercepting methane before it is emitted into the atmosphere and putting it to good use
- Hydrogen: Using hydrogen in the existing natural gas system as a clean fuel
- **Certified Natural Gas:** Gas that has been produced with a specific set of sustainability criteria to minimize methane leakage and harm to the environment
- Carbon Offsets: Carbon dioxide that is prevented from entering or removed from the atmosphere to compensate for emissions elsewhere

Clean Heat Plus would create a cleaner natural gas system with 1.6 million tons of emissions reduction by 2028, putting us well on track to meet the 2030 clean heat target.

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Reducing emissions with innovative projects

Successfully reducing emissions will require out-of-the-box thinking and new, creative ways to accelerate customer choices for cleaner energy options while ensuring affordability and equity. As part of our plan, we're seeking approval and funding for several Market Transformation Initiatives:

- The Boulder Peal Street Mall and F3 Reinforcement Non-Pipeline Alternative Portfolio projects are designed to avoid or defer investment in natural gas infrastructure.
- The All-Electric Residential New Build and Neighborhood Electrification and Energy Efficiency initiatives will explore how we can reach our clean heat electrification targets through new construction and retrofitting existing buildings.
- The Coal Bed Methane Recovery–Southern Ute Tribe project will prevent methane emissions from entering the atmosphere and displace the use of conventional natural gas.
- The Certified Natural Gas Purchase/Certificates with Advanced
 Measurement and Verification project will help drive more robust, verifiable and
 additional certification standards for natural gas with low methane emissions.
- The **Advanced Mobile Leak Detection** project will help us answer if we can further reduce the amount of unintentional methane emissions from our natural gas system using highly sensitive detection equipment.
- The small-scale **Hydrogen Blending Demonstration** project will safely blend hydrogen into the existing natural gas system at increasing percentages over a two-year period to establish best practices for future implementation of hydrogen blending on a broader scale.

Our proposal also includes Innovation Fund projects that are more conceptual at this point in time. While we are not seeking project-specific approval as part of the Clean Heat Plan, we are seeking broader funding that could help support the implementation of these projects in the future.

