

Investing in innovation: Green hydrogen



At CenterPoint Energy, we are investing in innovative technologies to advance decarbonization efforts in Minnesota and support our state's climate goals. As part of this strategy, we are exploring green hydrogen's ability to help lower carbon emissions throughout our natural gas system and for certain industrial and agricultural processes.

What is green hydrogen?

Hydrogen is an abundant element that produces no carbon emissions when combusted. In North America and Europe, hydrogen is safely blended into natural gas systems and has provided reliable lower carbon energy solutions to customers.

Green hydrogen is produced by splitting water into oxygen and hydrogen using an electrical current provided by a renewable electric supply. **Using hydrogen as an energy source for our customers can help our residential, commercial and industrial customers reduce their carbon footprint.**

Benefits of green hydrogen

Green hydrogen can provide many benefits to our customers, including:

- Achieving emission reductions while maintaining safe and reliable energy solutions.
- Leveraging a carbon-free gas that can be used to lower the carbon intensity of our delivered energy.
- Using existing infrastructure to deliver green hydrogen-blended natural gas.

How is CenterPoint currently using green hydrogen?

In April 2022, CenterPoint launched a green hydrogen pilot project in Minneapolis aimed at producing green hydrogen that is blended into a portion of our local natural gas supply.

In this pilot program, green hydrogen is produced at a CenterPoint facility using an electrical current supplied by purchased renewable energy. It splits water into oxygen and hydrogen and blends the hydrogen in small concentrations (less than 5% by volume) into a portion of our natural gas system.

This pilot project has allowed us to produce our own green hydrogen and blend it into natural gas to reduce the carbon content of the delivered energy. Pilot projects like this help accelerate hydrogen technologies, similarly to how early wind and solar investments advanced these for wider use.





To date, through our initial project, we are:

- Garnering technical expertise in the production of green hydrogen that can be used for both large-scale and customer-specific efforts.
- Identifying opportunities for future pilot projects, like generating renewable solar power and storing green hydrogen onsite.
- Helping develop the green hydrogen industry in the Midwest.
- Achieving emissions reductions.
- Gaining operational experience with green hydrogen production and blending of hydrogen into our natural gas system.
- Learning more about how green hydrogen works with our existing infrastructure.

The future of green hydrogen

We have made inroads into generating green hydrogen and blending it into our system, and we intend to explore additional possibilities. As part of the innovation plan submitted under the Minnesota Natural Gas Innovation Act (NGIA) to the Minnesota Public Utilities Commission (MPUC), we have proposed a green hydrogen blending pilot project in Mankato, Minnesota. Building on what we learn from the first pilot project, we plan to use onsite solar panels to generate a portion of the electricity needed to create the green hydrogen and a hydrogen storage system to give us experience storing the hydrogen we produce. The MPUC is expected to rule on the innovation plan in 2024.

CenterPoint is also seeking opportunities to help our customers use green hydrogen in more difficult to decarbonize sectors, including installing onsite green hydrogen electrolyzers and updating boilers to use up to 100% hydrogen.

We are moving green hydrogen technology forward through our existing and proposed efforts in our natural gas delivery system and continuing to explore opportunities to help customers achieve emission reductions.

At CenterPoint, we believe that we all deserve a cleaner energy future and are dedicated to leading the way.

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