Broader View, **Bigger Change**

CMS Energy to combat climate change by achieving net zero greenhouse gas emissions from entire natural gas system by 2050

CMS Energy and its primary business, Consumers Energy, have pledged to protect the planet by achieving net zero greenhouse gas emissions from the company's entire natural gas production and delivery system — including customers and suppliers — by 2050.

Achieving net zero emissions means eliminating the impact of emissions traced to burning of natural gas by customers and greenhouse gas emissions caused by natural gas suppliers who produce and transport natural gas to Consumers Energy's system.



Count Down to Net Zero

2035

2040

2045

2050



CMS Energy is already implementing industry-leading plans to reduce greenhouse gas emissions created by its operations. These include:

- Modernizing its natural gas system to achieve net zero methane emissions from its operations by 2030.
- Ending coal use and boosting renewable energy fuel sources to achieve net zero carbon emissions from its electric operations by 2040.
- Pledging to power 1 million electric vehicles in the communities it serves by 2030.

Learn more on back page

"Natural gas is safe and affordable and now it can be even more clean. We're making historic, industry-leading changes to protect our planet. This commitment is another step in leading the clean energy transformation for Michigan."

> Garrick Rochow PRESIDENT AND CEO



*Pending Michigan Public Service Commission approval.

What is in our net zero 2050 plan?

Key work is under way, providing practical tools or options customers and suppliers can use today or in the near future. In some cases, we're still in the early stages of discussion and development, parterning with industry peers, regulators, policymakers, customers and other key stakeholders.

Here are just a few pieces of our plan:

Carbon offsets: We've received regulatory approval for a new program for residential and business customers who want to voluntarily offset carbon emissions from their natural gas use by investing in projects that help Michigan forests reduce the amount of carbon dioxide in the atmosphere.

Renewable natural gas, or RNG: Produced from organic wastes and other renewable sources, RNG is considered a carbon neutral, or even negative, fuel and is interchangeable with conventional natural gas and a key technology available to reduce methane emissions. We recently announced an agreement with Swisslane Farms in west Michigan to build a biodigester facility that, with regulatory approval, will convert agricultural waste into RNG.

Energy efficiency: We're providing customers with the power to reduce energy waste and lower bills through a variety of energy efficiency and demand response programs. Since 2009, we've helped customers save about \$4 billion and prevented the emission of almost 19 million tons of carbon dioxide.

Emerging technologies: Potential solutions include using hydrogen to produce energy, capturing and permanently storing carbon emissions from natural gas combustion and using hybrid natural gas and electric heat pump systems to heat homes and businesses.



Does net zero mean no emissions?

No. Reaching "net zero" means eliminating the impact of carbon emissions created by the electricity we generate or purchase to serve Michigan — and now emissions traced to our natural gas customers and suppliers as well.

We'll reduce emissions as much as possible, then offset remaining emissions to achieve a carbon neutral position by 2050.



Pursuing a net zero goal for all emissions sources aligns the company's efforts with Michigan's Healthy Climate Plan to achieve net zero carbon emissions by 2050 as well as the recommendations of the Paris Agreement to limit global warming.

