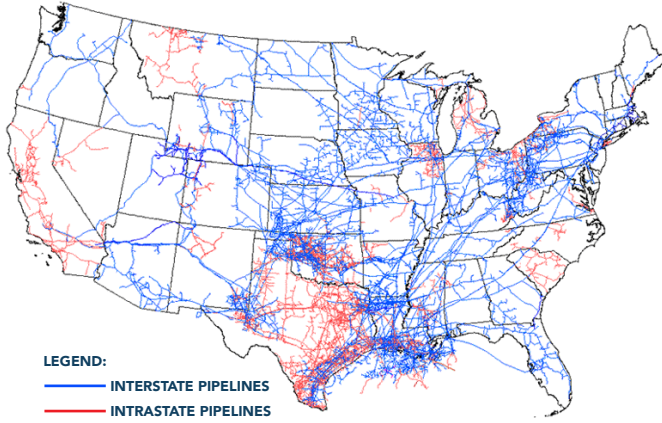


MAP OF U.S. INTERSTATE AND INTRASTATE NATURAL GAS PIPELINES



LEGEND:
— INTERSTATE PIPELINES
— INTRASTATE PIPELINES

Source: U.S. Energy Information Administration, About U.S. Natural Gas Pipelines

USING EXISTING INFRASTRUCTURE IN A LOW-CARBON FUTURE

Leveraging existing infrastructure can be a cost-effective way to reduce greenhouse gas emissions in the near term, supporting the transition to a low-carbon future.

North America's natural gas infrastructure is a highly integrated network that can transport and distribute resources throughout the country. This existing infrastructure can be used to distribute low-to-zero carbon fuels to reduce greenhouse gas emissions.



BLENDING HYDROGEN AND RENEWABLE NATURAL GAS

Renewable natural gas (RNG) made from capturing and refining biogas, and hydrogen are two clean fuels that can be blended into the gas pipeline infrastructure.

RENEWABLE GAS BENEFITS:

- RNG IS FULLY COMPATIBLE WITH CURRENT NATURAL GAS INFRASTRUCTURE
- CAN BE INJECTED IMMEDIATELY INTO PIPELINES TO BEGIN REDUCING GREENHOUSE GAS EMISSIONS
- CAN REPLACE A SIGNIFICANT PORTION OF EXISTING NATURAL GAS DEMAND

HYDROGEN BENEFITS:

- SURPLUS RENEWABLE ENERGY CAN BE USED TO PRODUCE ZERO-CARBON HYDROGEN
- HYDROGEN CAN CURRENTLY BE BLENDED UP TO 30%¹



MODERNIZING GAS DISTRIBUTION INFRASTRUCTURE

Existing distribution infrastructure can be upgraded and modernized in a way that minimizes methane emissions. Methane emissions can be minimized further by:



- ELIMINATING FLARING AND VENTING
- PLUGGING NATURAL GAS WELL HEADS
- IMPLEMENTING MODERN PRACTICES THAT CAN BETTER DETECT AND ELIMINATE METHANE LEAKS ON THE DISTRIBUTION SYSTEM
- CERTIFICATIONS (RESPONSIBLY SOURCED GAS) ENSURING ORGANIZATION'S GAS IS SOURCED WITH MINIMAL ENVIRONMENTAL AND SOCIETAL IMPACTS

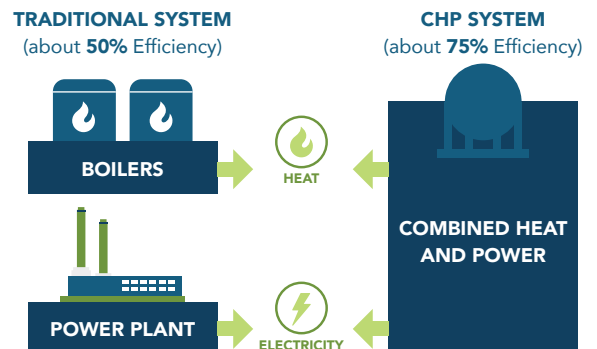


COMBINED HEAT AND POWER SYSTEMS TO REDUCE EMISSIONS

Combined heat and power (CHP) systems, also known as cogeneration, are a widely deployed technology that can be leveraged today to reduce greenhouse gas emissions. They require less fuel for the same level of energy output, allowing these systems to reduce greenhouse gas emissions.

CHP's high capacity factor allows for the displacement of high-emitting marginal grid resources for more hours than would be possible for wind or solar. CHP systems often run nearly continuously close to the level of their maximum output.

CHP PROVIDES EFFICIENT, CLEAN, RELIABLE, AFFORDABLE ENERGY — TODAY AND FOR THE FUTURE



Source: DOE, "Combined Heat and Power Basics"