

# Opportunities for Reducing Greenhouse Gas Emissions Through Emerging Natural Gas Direct-Use Technologies

Innovation of efficient natural gas direct-use technologies has accelerated dramatically in recent years. Although current natural gas space and water heating equipment can achieve efficiency ratings close to 100%, anticipated new technologies are capable of achieving efficiency ratings of 130% - 140%. The successful penetration of these technologies would result in significant reductions in natural gas energy consumption and emissions.

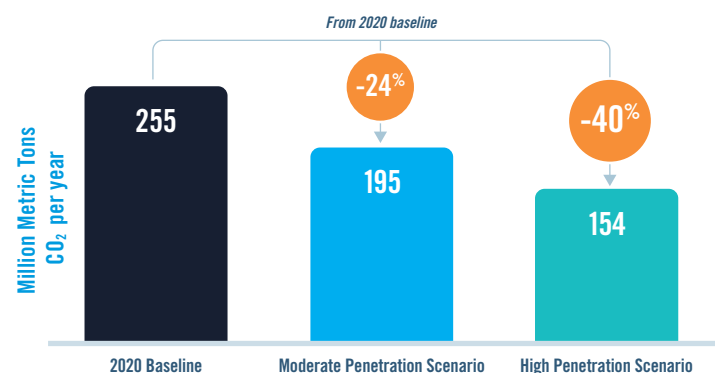
## ABOUT THE STUDY

Sponsored by the American Gas Foundation, this study prepared by Enovation Partners seeks to provide a fact-based analysis for policy discussions around the opportunities to achieve future emission reductions in the residential sector through new, highly-efficient natural gas direct-use technologies. The study models the consumption and emissions impact of varying penetration levels of emerging natural gas heat pump technologies for space and water heating in the home. The study also calculates the consumer benefits and emission reduction costs from the technologies modeled in the study compared to other emission reduction pathways.

With widespread adoption of emerging natural gas technologies, emissions from natural gas can be **reduced by 40% in the residential sector.**

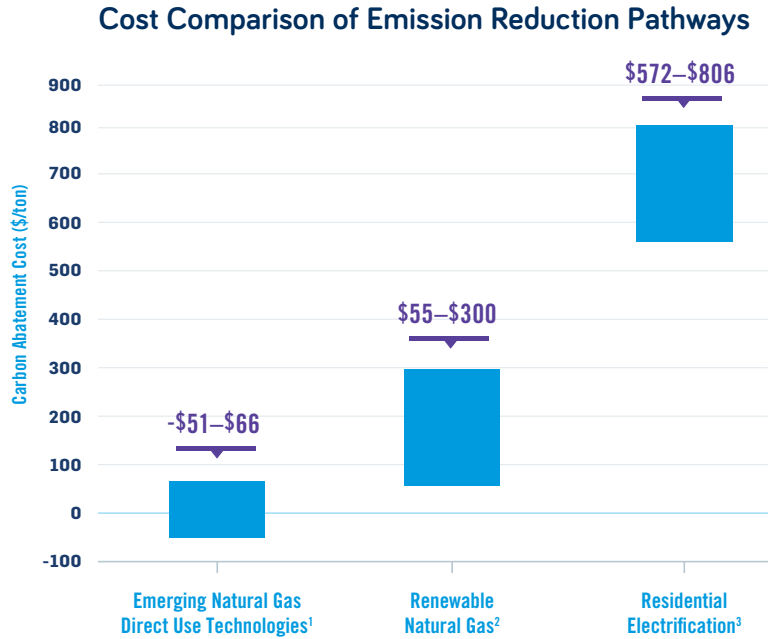


## Reducing Emissions Through Advanced Natural Gas Technologies for the Home



## Advanced Technologies Represent a Cost-Effective Way to Reduce GHG Emissions

New natural gas technologies carbon abatement cost range (-\$51 to \$66).



<sup>1</sup> Opportunities for Reducing Greenhouse Gas Emissions Through Emerging Natural Gas Direct-Use Technologies, 2019 | <sup>2</sup> Renewable Sources of Natural Gas Supply & Emissions Reduction Assessment Study, 2019 | <sup>3</sup> Implications of Policy-Driven Residential Electrification, 2018

## Consumer Savings

Advanced natural gas technologies could save consumers an annual average of nearly \$300.

