

# EMISSIONS ADVANTAGE

## FOR PROPANE RESIDENTIAL APPLIANCES

American homeowners are paying more attention than ever to their carbon footprint, from the cars they drive, right down to their home appliances. This new report proves that propane is the best way construction professionals can help environmentally-conscious homeowners reduce their emissions for space and water heating, clothes drying, and cooking.

### METHODOLOGY

From August 2016 through January 2017, the Propane Education & Research Council contracted the Gas Technology Institute (GTI) to execute a comparative emissions analysis study of targeted applications in key propane markets, including the residential market. The report studied three emissions types: full-fuel-cycle energy consumption, greenhouse gas emissions, and criteria pollutant emissions (NOx, SOx).

### KEY



SULFUR OXIDE



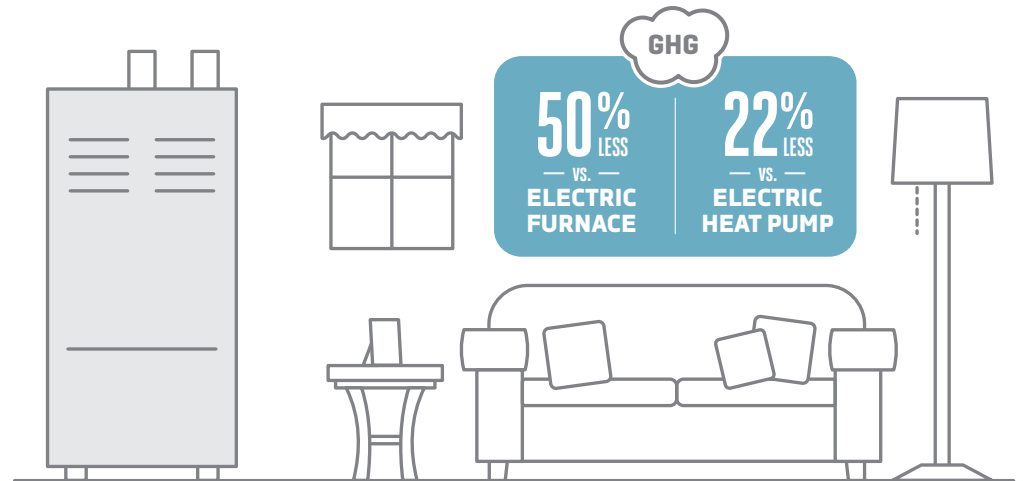
GREENHOUSE GASES



NITROGEN OXIDE

## SPACE HEATING ▶

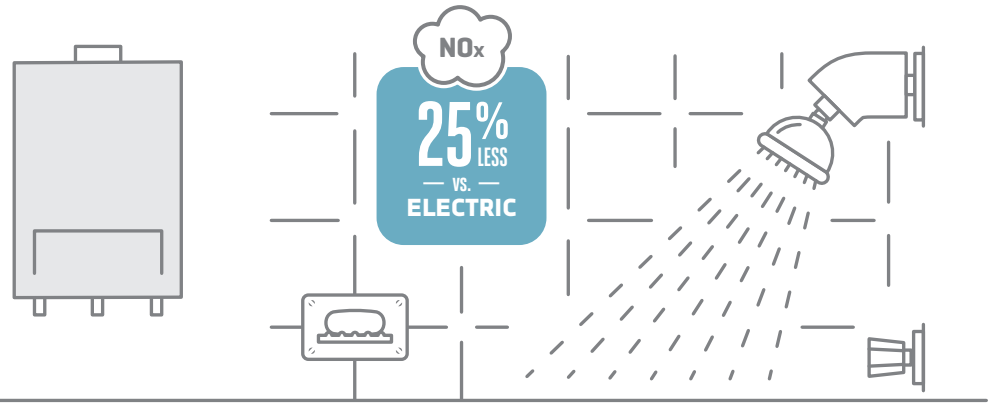
With a propane furnace, homeowners have a cleaner source of home heat than electric furnaces, Energy Star-rated and standard electric heat pumps, and heating oil. Propane also has a reputation for keeping homes more comfortable with a warmer heat than other power sources.



Study based on a single detached residence with three occupants and an annual heating load of 51.2 MMBtu, based on the average propane use for heating as reported by Residential Energy Consumption Survey.

## WATER HEATING ▶

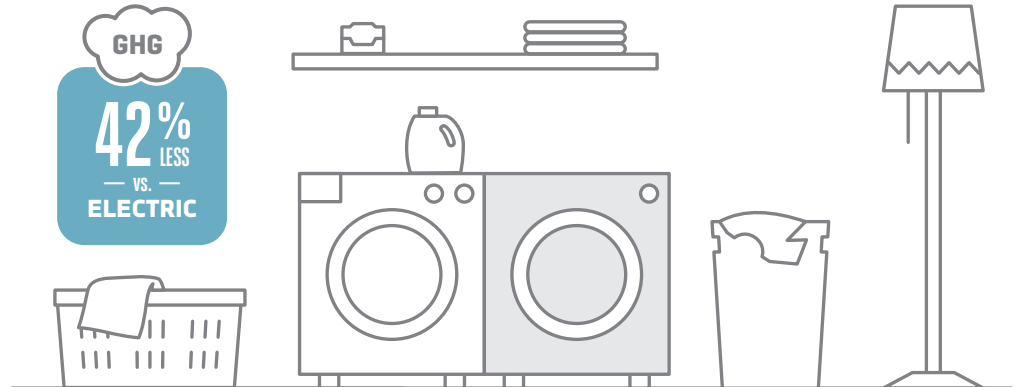
For lower emissions, propane storage tank and tankless water heaters outperform electric models. Propane is also the best choice for energy efficiency that cuts homeowners' energy bills, and keeps up with heavy water heater usage.



Study based on a single detached residence with three occupants and an annual water heating load of 11.6 MMBtu. Water heater energy factors based on Department of Energy and Energy Star minimum ratings for residential water heater technologies.

## DRYERS ▶

In clothes drying, propane has the unique benefit of reducing greenhouse gases\* while also drying clothes faster, with a more moist heat to maintain the quality of the fabric.



## RANGES ▶

Beyond reducing harmful emissions\*, propane ranges give homeowners the best cooking experience available.



\*Study based on a single detached residence with three occupants. The standard minimum efficiency was used for both clothes dryers and stove/cooktops. Electricity emissions based on average U.S. baseload generation mix.

### FOR MORE INFORMATION

For more information on propane appliances, visit [buildwithpropane.com](http://buildwithpropane.com).

Propane Education & Research Council / 1140 Connecticut Ave. NW, Suite 1075 / Washington, DC 20036  
P 202-452-8975 / F 202-452-9054 / [propanecouncil.org](http://propanecouncil.org)

 PROPANE EDUCATION & RESEARCH COUNCIL

The Propane Education & Research Council was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source.