# Reaching Zero Net Energy **Goals with Propane**



NATIONAL EDITION

Using propane appliances, you can significantly lower a home's energy consumption, making it easier to achieve Zero Net Energy (ZNE) goals and deliver premium performance to homeowners. It's why propane should be a part of every builder's ZNE strategy.

#### THE ZNE HOME

Produces as much energy as it uses. Builders achieve this by increasing a home's energy efficiency, then adding renewable energy sources such as solar.

#### THE ZNE READY HOME

Is incredibly energy efficient, and can reach Zero Net Energy status by using propane appliances and adding renewable energy.



# **MEASURING ENERGY USES: SITE VS. SOURCE**

#### **Site: LESS ACCURATE**

Measures only energy used at the house. Doesn't account for upstream losses or energy production.

#### **Site: MORE ACCURATE**

Measures energy use starting at the source, including the energy required to extract and process fuel.





#### **SOURCE ENERGY RATIOS**

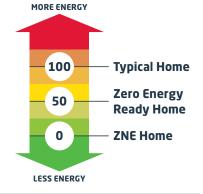


It takes 2.61 units of electricity to produce and deliver one unit of energy to a home, versus just 1.01 for propane. Propane wins hands down.

\*This data is based on national averages, it may be different in your area.

# **MEASURING ZNE PROGRESS**

The Home Energy Rating System (HERS®) Index is used to measure efficiency. The lower the score, the better.



# **3 WAYS TO LOWER YOUR HERS SCORE**

#### Focus on the building's envelope:

- 1. Insulation quality
- 2. Insulation quantity
- 3. Air sealing
- 4. Window performance
- 5. House orientation

# Include high-efficiency propane appliances:

- 6. Propane furnace
- 7. Propane water heating
- 8. Propane cooking
- 9. Propane fireplace
- 10. Propane clothes dryer

# Trim other energy use:

- 11. Energy Star appliances
- 12. LED lighting
- 13. Energy monitoring devices.

# **PROVEN RESULTS**

Using propane and other strategies including solar cells, this home earns \$343 annually selling excess energy.

- 1,912 square feet
- R-5 triple-pane windows
- Super insulated
- HERS without solar: 34
- tankless water heater
- 96% efficient propane HERS with solar: -21

#### **OTHER PROPANE BENEFITS**

Propane is not only energy efficient, it lowers first costs and emissions. It is also highly effective in any area of the country for a variety of temperatures.

#### **FIRST COSTS**

Of high-performance systems:

- Propane Furnace & AC: \$11k
- Ground Source Heat Pump (GSHP) Closed Loop: ~\$34k

#### **67% FEWER EMISSIONS**

With a propane tankless water heater compared with electric storage tank models.

### LEARN MORE ABOUT ZNE BUILDING AND PROPANE

Find out how to achieve your Zero Net Energy goals, and how to lower a home's HERS score with propane appliances at **Propane.com**.