# Reaching Zero Net Energy Goals





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.

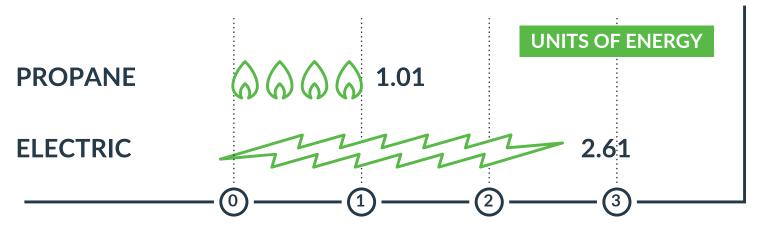
#### **Site: MORE ACCURATE**

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





#### **SOURCE ENERGY RATIOS**



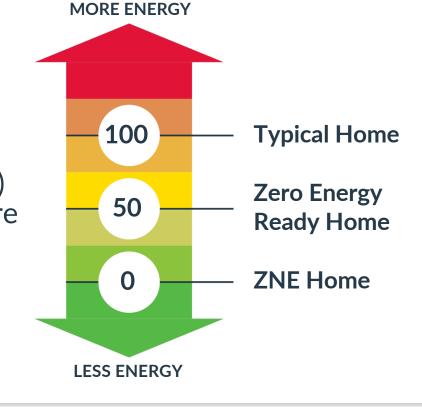
It takes 2.61 units of electricity to produce and deliver one unit of energy to a home, versus just 1.01 for propane. Propane wins hands down.

\*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.

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

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

