

# 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

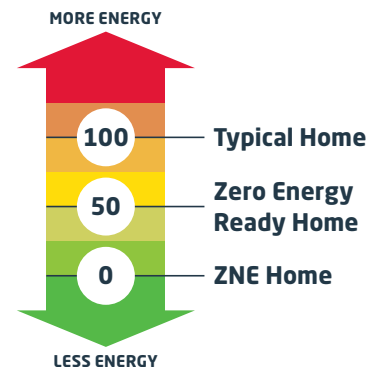


It takes 2.61 units of electricity to produce and deliver one unit of energy to a home, versus just 1.01 for propane. Propane wins hands down.

*\*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:

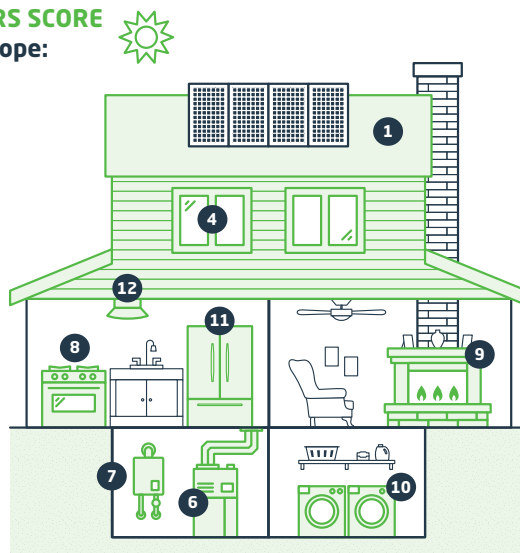
1. Insulation quality
2. Insulation quantity
3. Air sealing
4. Window performance
5. House orientation

#### 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
- 96% efficient propane
- HERS with solar: -21
- tankless water heater

### 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**.