

# Step Up to NEEM<sub>+PLUS</sub><sup>™</sup>

The Northwest Energy Efficient Manufactured Housing Program (we call it NEEM) is proud to partner with Kit Custom HomeBuilders in offering **the most energy efficient manufactured home option package available anywhere in the USA**. Together we developed a home package that is durable, practical to build and **outperforms the EPA’s ENERGY STAR savings targets by 30 percent**. We call the result **ENERGY STAR with NEEM<sub>+PLUS</sub>**.

One of the few builders in the country to make ENERGY STAR certification standard on their HUD-code homes, Kit Custom HomeBuilders is also the most experienced builder of homes certified to meet the NEEM<sub>+PLUS</sub> standards.

## What do I get?

- 10 percent more thermally efficient building envelope than ENERGY STAR
  - Additional insulation
  - New window technology
- Improved indoor air quality
  - Enhanced air sealing for 20 percent reduction in building air leakage
  - Best in class ventilation fans move air quietly and with half the energy use
- LED lighting lasts 10x longer, gives better light, uses 80 percent less energy
- ENERGY STAR refrigerator saves more energy in the kitchen
- Smart Wi-Fi thermostat improves comfort and saves up to 10 percent on heating

## Expected annual household Energy Usage and Savings\* :

| Location           | HUD Standard<br>(annual kWh usage) | ENERGY STAR<br>(annual kWh/\$ Savings vs. HUD) | ENERGY STAR With NEEM <sub>+PLUS</sub><br>(annual kWh/\$ Savings vs. HUD) |
|--------------------|------------------------------------|--|---|
| Seattle / Portland | 15,700                             | 11,200 / \$450 saved                           | 9,500 / \$620 saved   |
| Boise / Kennewick  | 19,500                             | 13,600 / \$590                                 | 11,500 / \$800  |
| Spokane / Billings | 22,300                             | 15,000 / \$730                                 | 12,700 / \$960  |

\* For a 1,500 square foot home with an electric furnace, electricity rate of 10 cents/kWh. HUD Standard home represents typical builder base efficiency packages. Intended to be a guide, your savings may vary.

## NORTHWEST ENERGY EFFICIENT MANUFACTURED HOUSING PROGRAM

### Technical Specification Comparison between NEEM ver. 1.1 and ver. 2.0

|  | NEEM ver. 1.1, branded as<br><b>ENERGY STAR®</b>  | NEEM ver. 2.0, branded as<br><b>ENERGY STAR with NEEM+PLUS™</b>  |
|--|---|--|
| <b>Kit Custom Homebuilders Insulation and Energy Efficiency Measures</b>                         |   |  |
| Ceiling  | R-40  | R-40   |
| Walls  | R-21  | R-21 w/R-6 insulated headers   |
| Floor  | R-33  | R-33/R-55  |
| Windows  | U-0.35  | U-0.28   |
| Skylights  | U-0.50  | U-0.50   |
| Entry Doors  | U-0.19  | U-0.19   |
| Overall Average U-value  | 0.053   | 0.049  |
| <b>Building Tightness</b>  | 5.0 ACH @ 50 Pa,<br>via standard NEEM measures  | 4.0 ACH @ 50 Pa,<br>via expanded air sealing measures  |
| <b>HVAC Measures</b>   |   |  |
| Duct System  | Mastic, 0.06 CFM50/ft <sup>3</sup> total  | Mastic, 0.06 CFM50/ft <sup>3</sup> total   |
| Crossover duct   | In-floor  | In-floor   |
| Thermostat   | Programmable  | Wi-Fi Connected “Smart”  |
| Whole house ventilation  | 32 Watts, <1 Sone   | 17 Watts, <1 Sone  |
| <b>Lighting</b>  | Not Specified   | LED Throughout   |
| <b>Appliances, ENERGY STAR</b>   | Dishwasher  | Dishwasher and Refrigerator  |
| <b>Moisture Management</b>   | Not Specified   | Building wrap & door/window flashing   |
| <b>Whole House Energy Usage</b><br>Seattle / Portland<br>Boise / Kennewick<br>Spokane / Billings | <b>28% Savings Versus Code</b><br>11,200 kWh total annual use<br>13,600 kWh total annual use<br>15,000 kWh total annual use | <b>39% Savings Versus Code</b><br>9,500 kWh total annual use<br>11,500 kWh total annual use<br>12,700 kWh total annual use |