## **2021 ORSC Additional Energy Measures**

## TABLE N1101.1(2) ADDITIONAL MEASURES

|   | · · · · · · · · · · · · · · · · · · ·   |
|---|---|
| 1 | HIGH EFFICIENCY HVAC SYSTEM <sup>8</sup>  |
|   | a. Gas-fired furnace or boiler AFUE 94 percent, or  |
|   | b. Air source heat pump HSPF 10.0/14.0 SEER cooling, or   |
|   | c. Ground source heat pump COP 3.5 or Energy Star rated   |
| 2 | HIGH EFFICIENCY WATER HEATING SYSTEM  |
|   | <ol> <li>Natural gas/propane water heater with minimum UEF 0.90, or</li> </ol>  |
|   | <ul> <li>Electric heat pump water heater with minimum 2.0 COP, or</li> </ul>  |
|   | c. Natural gas/propane tankless/instantaneous heater with minimum 0.80 UEF and  |
|   | Drain Water Heat Recovery Unit installed on minimum of one shower/tub-shower  |
| 3 | WALL INSULATION UPGRADE   |
|   | Exterior walls—U-0.045/R-21 conventional framing with R-5.0 continuous insulation   |
| 4 | ADVANCED ENVELOPE   |
|   | Windows-U-0.21 (Area weighted average), and   |
|   | Flat ceiling b—U-0.017/R-60, and  |
|   | Framed floors—U-0.026/R-38 or slab edge insulation to F-0.48 or less (R-10 for 48"; R-15 for 36" or R-5 fully insulated slab)   |
| 5 | DUCTLESS HEAT PUMP  |
|   | For dwelling units with all-electric heat provide:  |
|   | Ductless heat pump of minimum HSPF 10 in primary zone replaces zonal electric heat sources, and   |
|   | Programmable thermostat for all heaters in bedrooms   |
| 6 | HIGH EFFICIENCY THERMAL ENVELOPE UAC  |
|   | Proposed UA is 8 percent lower than the code UA   |
| 7 | GLAZING AREA  |
|   | Glazing area, measured as the total of framed openings is less than 12 percent of conditioned floor area  |
| 8 | 3 ACH AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION   |
|   | Achieve a maximum of 3.0 ACH50 whole-house air leakage when third-party tested and provide a whole-house ventilation system including heat recovery with a minimum sensible heat recovery efficiency of not less than 66 percent. |
|   |   |

For SI: 1 square foot =  $0.093 \ m^2$ , 1 watt per square foot =  $10.8 \ W/m^2$ .

- a. Appliances located within the building thermal envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.
- The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor no greater than U-0.026.
- c. In accordance with Table N1104.1(1), the Proposed UA total of the Proposed Alternative Design shall be a minimum of 8 percent less than the Code UA total of the Standard Base Case.