

Proposed Energy Efficiency and Refrigerant Management for Priority Green Expedited

The Seattle Energy Code (SEC) includes "residential" (SEC-R) and "commercial" (SEC-C) sections. "Residential" includes one- and two-family dwellings, townhouses, and multi-family buildings three stories or less. "Commercial" includes all buildings not covered under "Residential". Seattle must adopt the State residential code with no modifications but amends the commercial section to meet Seattle's climate goals.

Both sections of the code require a minimum number of efficiency credits depending on the type and size of building as defined in sections R406 and C406. This offers builders a menu of choices to achieve energy efficiency. Washington State adopted appendices in the residential energy code that are meant to reduce energy use in addition to code requirements. Priority Green residential projects will use theses appendices to achieve an additional 12% or 6% respectively based on achieving additional efficiency beyond the code requirements. Multifamily projects over 3 stories and commercial projects will use C406.1 to achieve 6% or 3% based on achieving additional efficiency beyond code requirements. The frameworks will be adjusted to eliminate credits associated with fossil fuel.

All buildings are to use electricity for space heating, water heating, and cooking.

Research shows that leaks in refrigerant systems are responsible for elevated greenhouse gas emissions. Buildings that meet refrigerant management requirements are therefore allowed to use the less restrictive energy savings for 6% or 3% savings based on code applicability. The intent is to make the energy efficiency only and energy efficiency/refrigerant management options roughly equivalent with respect to overall greenhouse gas emissions and to improve the market with respect to refrigerant management.

Energy efficiency can be demonstrated by energy model if preferred. Reductions from the standard reference design will be determined later.

The below provides more information on Priority Green Energy and Refrigerant Management requirements.

A. Priority Green Expedited Energy Requirement for SEC-R (WSEC)

1. PRESCRIPTIVE OPTION: Use <u>Appendix RB</u> (page 98) to achieve an additional 12% savings

a. Achieve 2.0 credits in addition to R406 requirements for each new single-family, two-family and townhouse dwelling unit

b. Achieve 1.0 credit in addition to R406 for each new dwelling unit in an apartment building (R-2 occupancy)

OR meet refrigerant management criteria and use <u>Appendix RA</u> (page 98) to achieve an additional 6% savings

c. Use no field refrigerant connections (all refrigerant connections contained within factory-built equipment) and achieve 1.0 credit in addition to R406 for each new single-family, two-family and townhouse dwelling unit

- d. Use no field refrigerant connections (all refrigerant connections contained within factory-built equipment) and achieve 0.5 credit in addition to R406 for each new dwelling unit in an apartment building (R-2 occupancy)
- 2. MODELING OPTION: comparable to above (TBD)
- B. Priority Green Expedited Energy Requirement for SEC-C
 - 1. PRESCRIPTIVE OPTION: achieve an additional 6% energy savings
 - a. Achieve 6 additional efficiency package credits from <u>C406.1</u> (page 123, to be amended by Seattle)

OR meet refrigerant management criteria and achieve 3% energy savings

- b. use no field refrigerant connections (all refrigerant connections contained within factory-built equipment) and achieve 3 additional efficiency package credits from <u>C406.1</u> (page 123, to be amended by Seattle)
- 2. MODELING OPTION: comparable to above (TBD)