



May 2, 2024 (revised 6/3/24)

May 2024 Revisions to the draft 2021 Seattle Energy Code

In February 2023, Seattle's Construction Codes Advisory Board (CCAB) substantially completed review of proposed amendments to 2021 Seattle Energy Code commercial provisions.

Per mayoral direction, the draft 2021 Seattle Energy Code (SEC) has been revised to remove the energy efficiency advances included in the original draft. The stringency level of the revised Seattle code for new construction projects will largely match that of the 2021 Washington State Energy Code already in effect. A number of corrections and clarifications from the original draft will remain in the 2021 SEC, in addition to rules governing replacement of existing fossil fuel equipment.

The **May 2024** draft 2021 Seattle Energy Code (SEC) has been revised as follows:

1. The 2021 SEC will largely match the 2021 WA State Energy Code including adoption of the fossil fuel compliance path.
2. Previously proposed 2021 SEC amendments that are more stringent than the 2021 WA State Energy Code are stricken.
3. Existing 2018 SEC provisions are maintained.
4. Previously proposed 2021 SEC amendments that provide additional flexibility for existing buildings are maintained.
5. Previously proposed 2021 SEC amendments that are simple corrections or clarifications are maintained.
6. **C405.14.1 Electric-ready commercial kitchen. Commercial kitchens in new buildings must have electrical capacity for future electrification.**

In effect, this policy direction will not increase 2021 Seattle Energy Code commercial requirements beyond the levels of the new 2021 WA State Energy Code or the existing 2018 Seattle Energy Code.

Significant 2021 SEC amendments that are stricken and will not move forward include:

- **C402.4 Fenestration.** 20% of fenestration on new buildings must use triple glazing or equivalent.
- **Table C402.4.1 Maximum area.** Allowable fenestration area varies based upon building occupancy, rather than being a straight 30% or 35% in WA code.
- **C403.8.7 "Occupied standby" controls for ventilation, to reduce airflow and slightly set back temperatures when spaces are unoccupied.**
- **C403.** HVAC equipment efficiency: Several increases in efficiency for HRVs, pumps, and fans.
- **C405.2.4 Manual dimming controls.** Dimming controls required for lighting in most major space types. "Light reduction controls" requirement eliminated.
- **Table C405.4.2(1) Interior lighting power allowance.** Interior lighting power reduced by 10% below WA Code, approximately 5% below current Seattle code
- **Table C406.1** Efficiency credits 10% higher in Seattle code than in WA code, similar to 2018 SEC vs 2018 WA state.

- **Table C407.3.2 Energy modeling targets 10% lower in Seattle code than in WA code.**
- **C408 Commissioning.** New commissioning compliance rules added to ensure completion of commissioning work.
- **C411.1 On-site renewable energy. Renewable energy baseline increased** from 0.25W/ft² (2018 Seattle code) and 0.50W/ft² (2021 WA code) to **0.75W/ft². Note: this is the only significant change in the 2021 WA code that exceeds the 2018 SEC.**
- **C503.4.3.1 Addition of new or replacement of existing air-cooled chiller systems.** Requires that chiller replacements be made with heat pumps controlled to serve as the first stage of heating.

Significant 2018 SEC provisions carried over into the 2021 SEC that are more stringent than 2021 WA Energy Code are below. The intent is to not roll back efficiencies gained in the 2018 SEC.

- Table C402.1.3. Mass walls require insulation levels similar to frame walls. WA exemption for CMU walls not available in Seattle code.
- C404.2.1.1 Heat pump system sizing. Seattle requires 100% of service water heating capacity (at 40 degrees outside air temperature) must be heat pump, vs. 50% in WA code.
- C405.14 Commercial food service equipment must be Energy Star: fryers, hot food holding cabinets, steam cookers, dishwashers.
- C407.3.1 Limits on substandard building envelopes. The total UxA for the building envelope is not permitted to be more than 10% higher than allowed by prescriptive compliance, vs. 20% in WA code.
- C411.1 On-site renewable energy. Threshold for compliance is 5,000 sf, vs. 10,000 sf in WA code.
- C503.9. Seattle rules for substantial alterations.

Significant 2021 SEC amendments offering flexibility for existing buildings that are maintained are below. These amendments offer greater flexibility than the 2018 SEC.

- Softening rules for replacement of central HVAC gas and electric resistance heating equipment with heat pumps:
 - Exempt affordable housing, hospitals, nonprofits, and buildings that would require major electricity service upgrades.
 - Allow buildings to retain 50% of their existing gas heating capacity.
 - Allow emergency replacements of gas equipment, using either a TCO (temporary certificate of occupancy) or a performance bond that requires the heat pump installation within 4 years.
 - However, all of the above must complete a “future decarbonization plan” that includes an engineered schematic design and cost estimate for future conversion to heat pumps.
- Similar rules for replacement of central service water heating systems
- ~~Similar rules requiring upgrade of central HVAC heating systems to heat pump at time of air-cooled chiller replacement.~~