



## King County amendments to the 2018 Washington State Energy Code

Consistent with King County's Strategic Climate Action Plan, the county has approved advanced energy code provisions beyond those provided by the current 2018 Washington State Energy Code (WSEC). These provisions are found within the larger building and energy codes update ordinance ([#2021-0346](#)).

The new energy codes apply to developments in unincorporated King County and will be required for all building permit applications received on or after **January 1, 2023**. They include the following requirements.

### **Residential**

*The following provisions apply to single family homes, townhouses, and duplexes constructed under the International Residential Code (IRC).*

- Requires a solar-ready zone to be provided, along with a capped roof penetration sleeve, and reserved space for future solar electrical installation at the electrical panel

### **Commercial**

*The following provisions apply to all non-residential buildings and multifamily buildings four or more stories in height.*

- Building Envelope
  - Where through-wall mechanical equipment penetrations are more than 1% of the wall area, those penetration areas must be included in the thermal envelope calculation.
  - Thermal break required at above-grade exterior concrete slabs.
  - Requirements for improved window thermal performance and intersection details.
- Mechanical Systems
  - Adds medical office and residential common areas to uses that must calculate and comply with an HVAC total system performance ratio (TSPR).
  - Prohibits fossil fuel and electric resistance heating in most cases.
  - Exceptions to energy recovery with dedicated outdoor air systems (DOAS) modified
  - Limits heat pump supplementary heat.
  - Expands requirements for demand-controlled ventilation to less dense occupancies.
  - Increases required efficiency for energy recovery ventilation systems.
  - Adds a requirement to insulate refrigerant piping.
  - Requires energy star appliances and dishwashers in commercial food service.

## King County amendments to WSEC, continued

- Water Heating
  - Requires heat pump water heaters in residential buildings with central hot water service of any size, and all buildings with central hot water services over 15kW.
  - Provides design criteria for high input-rated water heating systems and limits the allowed supplemental electric resistance water heating equipment of these systems.
  - Increases required insulation for water storage tanks.
  - Requires thermostatic balancing valves on heated water circulation systems and increases required insulation on supply and return pipes.
  - Prohibits demand recirculation water systems.
- Electrical Power and Lighting
  - Requires advanced lighting controls in open office areas over 5,000 square feet.
  - Reduces interior lighting power allowances (watts per square foot allowed).
  - Excludes covered parking garage lighting from exterior lighting power allowance.
  - Requires an electrical receptacle at installed gas appliances in dwellings.
- Solar Readiness
  - Expands requirement to multifamily buildings.
  - Allows rooftops occupied by mechanical equipment to be removed from roof area for purposes of calculating required solar ready zone areas.
  - Requires a roof penetration sleeve for solar ready zones.
- On-site Renewable Energy
  - New section requiring installation of solar panels or other on-site renewable energy for buildings or additions greater than 5,000 square feet.
- Efficiency Package Credits
  - Increases the number of required efficiency package credits from 6 to 8.
  - Modifies credits to reflect above updates to the base code requirements.
- Performance Based Compliance
  - Changes the calculation to reflect above on-site renewable energy requirement.
  - Additional modifications to the Performance Rating Method.
- Existing Buildings
  - Prohibits fossil fuel and electric resistance heating in substantial alterations.
  - Adds building envelope compliance exception for change of use to a bakery, kitchen or laundry when the proposed design uses only all-electric Energy-star rated equipment.

The State Building Code Council is currently completing final rule making of the 2021 Washington State Energy Code (WSEC). That code is expected to be effective on July 1, 2023. Many of the provisions found in the proposed King County amendments are expected in the 2021 WSEC which will be effective statewide.

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