



# WA State Energy Code Advocacy

*The 2018 energy code will be critical to achieving zero carbon homes and buildings by 2030. This is a call to action to ensure that we do not lose momentum toward this goal! The code cycle currently underway is the last chance to improve the code until 2023.*

*Shift Zero is an alliance of organizations united to promote one goal: the equitable adoption of zero carbon buildings at scale in Washington State.*

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## Background

Energy use in new buildings in Washington is governed by the energy code, which is revised every three years. The energy code is divided into two sections:

1. The **residential energy code**, which regulates single-family homes, townhomes, and low-rise multifamily buildings (three floors and shorter); and
2. The **commercial energy code**, which regulates commercial buildings and large multifamily buildings (four floors and taller).

By legislative statute, the energy code should become increasingly more efficient every revision cycle so that new buildings in 2031 are effectively zero carbon-ready (RCW [19.27A.160](#)). In addition, Governor Inslee's [Executive Order 14-04](#) directs the State Building Code Council to “achieve early and widespread deployment of energy-neutral buildings prior to the 2031 statutory requirement in RCW 19.27A.160.” **Because there are only four code cycles between now and 2031, it is essential that each cycle maximize what can be done to make buildings more efficient.**

More efficient buildings mean:

- Lower utility costs for residents and tenants
- Healthier homes and buildings with improved indoor air quality
- More responsible use of our existing clean energy resources, eliminating needs for new power generation as our population grows
- Clean electricity currently needed for buildings is made available to replace fossil fuels used in vehicles and space heating
- Reduced energy use, which will help the State meet its carbon reduction targets

# Process

Changes to the building energy code are first reviewed and moved forward by the State Building Code Council's (SBCC) Energy Code Technical Advisory Group (TAG), and then the SBCC releases a package of proposals for public comment. Following public comment, the SBCC approves the revised code, and may modify provisions during this step.

Below are upcoming key dates associated with this cycle. More information on meeting documents and location information is [available here](#).

When	What	Where?
Friday, September 13 10am	<b>Public hearing</b> on Residential Energy Code	Center Place 2426 N. Discovery Place Spokane Valley, WA 99216
Friday, September 27 10am	<b>Public hearing</b> on Residential Energy code	Dept. of Enterprise Services 1st Floor Presentation Room 1500 Jefferson Street SE Olympia, WA 98501
Friday, September 27	<b>Written Comment</b> Due on Residential Energy Code	Email to <a href="mailto:sbcc@des.wa.gov">sbcc@des.wa.gov</a>
Friday, November 8 10am	SBCC Meeting to Approve Residential Energy Code	Dept. of Enterprise Services Olympia, WA
July 1, 2020	Both Residential and Commercial Energy Codes go into effect	N/A

## Providing Spoken Testimony

Those interested in providing spoken comment can do so in person or over the phone during one of the two public hearings listed above. Spoken comments should be 1-3 minutes long. Sample talking points are available [here](#). For those calling in, Webex and phone information will be available [here](#).

## Submitting Written Comment

Written comment should be submitted to [sbcc@des.wa.gov](mailto:sbcc@des.wa.gov) by September 27, addressed to the below. A sample letter is available [here](#) for review and modification.

Doug Orth, Council Chair  
PO Box 41449  
Olympia WA 98504-1449

# Proposed 2018 Residential Energy Code

The proposed changes to the residential energy code ensure that we remain on a path to meet the legislative mandates; the proposed changes both make important structural changes to keep flexibility in the code and provide substantial energy savings that will pay residents back. *The full package of the proposed code change is available [here](#). If you are interested in the full details of proposal, reach out to [rachel@shiftzero.org](mailto:rachel@shiftzero.org) so we can point you to the most up-to-date version.*

## Shift Zero strongly supports the following changes:

- **Require Additional Credits in Option Table:** The additional credits increase efficiency by approximately 14% from the previous code. This proposal is responsive to the legislative mandate to reduce energy use in new construction 70% by 2031; it also makes important clarifications and structural improvements. *(Proposal 23)*
- **Require Additional Credits beyond Proposal 23 Above:** Adds 1 additional credit more than proposal 23 above for medium and large houses, 0.5 credit for small houses. The additional credits in this proposal increase efficiency in medium/large homes by a total of approximately 22% from the previous code while remaining cost-effective from a life-cycle cost perspective. This proposal responds to Executive Order 14-04 to accelerate innovation. *(Proposal 31)*
- **Account for Carbon in Option Table:** Transitions the option table credits from representing onsite energy use to carbon emissions. The change to carbon accounting reduces the number of credits granted to fossil gas efficiency measures and increases the number of credits granted for electric heat pump measures. This proposal is an important step toward decarbonizing residential new construction in Washington state; as electricity becomes cleaner, the option table credits for high efficiency electric measures will increase. *(Proposal 36)*
- **Passive House Alternative Compliance:** Adds passive house certification (PHIUS and PHI) as an alternative performance-based compliance path for homes, which provides for continued flexibility in meeting the energy code requirements. *(Proposal 32)*
- **Water Heater and Dryer Electric Readiness:** Allows homes to have easier and cheaper electrification upgrades in the future by requiring electric receptacles near gas and propane water heaters and dryers, reserved space in the electrical panel, and extra space for all water heaters to allow for future heat pump water heater replacements. *(Proposal 33)*
- **Optional “Reach Code”:** Provides two optional “reach code” appendices. The appendices will include additional credits above the base code. Although the appendices cannot be adopted by jurisdictions as base code, these appendices allow jurisdictions and/or utilities to incentivize more efficient residential construction in a consistent way. *(Proposal 35)*
- **Gas Fireplace Efficiency:** Establishes a minimum efficiency performance threshold for fireplaces based on the Canadian Fireplace Efficiency Standard. *(Proposal 27)*
- **Continuously Burning Pilot Lights:** Prohibits the use of standing (or continuous) pilot lights on select gas-fired appliances, for example fireplaces, fan-type central furnaces, and pool and spa heaters. *(Proposal 28)*

### What is the Residential Option Table?

When meeting the efficiency requirements of the energy code, the option table allows builders to select whatever measures are most appropriate to their building according to a credit-based points scale that reflects the energy savings being achieved. It preserves flexibility while ensuring homes are being built efficiently.

# 2018 Commercial Energy Code - Passed!

The changes to the commercial energy code include some significant structural changes to the code that are important as we move into the future; however, the energy savings are relatively modest (approximately 6-7% over the last code). The SBCC passed the code out in July 2019. It needs to sit through the 2020 legislative session before it takes effect.

Below are some of the major changes to the commercial energy code:

- **Total System Performance Ratio (TSPR):** The current energy code treats high and low performing HVAC systems equally. This change requires an installed HVAC system to be at least as efficient as a defined system for a particular occupancy type. This change will continue to allow design flexibility while constraining the installation of poor performing HVAC systems in buildings where it does not make sense. More information is [available here](#).
- **Adopt ASHRAE Appendix G:** This proposal adopts ASHRAE Appendix G as the energy modeling compliance path, resulting in buildings whose energy use more closely aligns with prescriptively-designed buildings. This proposal switches the metric from site energy use to carbon emissions, which will become increasingly important as our electricity grid becomes cleaner.
- **Air Barrier Improvements and Testing:** These proposals tighten the air barrier test standard and make passing the test mandatory. Ensuring that buildings are air tight to start is much less expensive to build in at the start than to retrofit, and provides numerous benefits including energy performance, durability, indoor air quality, and comfort.
- **Solar Ready Roofs:** This change requires a certain amount of roof space and electrical infrastructure be available for solar panels, unless shading would indicate that the roof is not well-suited for solar generation. This change ensures that buildings will be able to install a solar photovoltaic system easily and economically in the future. This change is very similar to a provision already in the Seattle Commercial Energy Code.