



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

### Washington State Energy Code Development Standard Energy Code Proposal Form

Jan 2022

Log No. \_\_\_\_035 v2\_\_\_\_

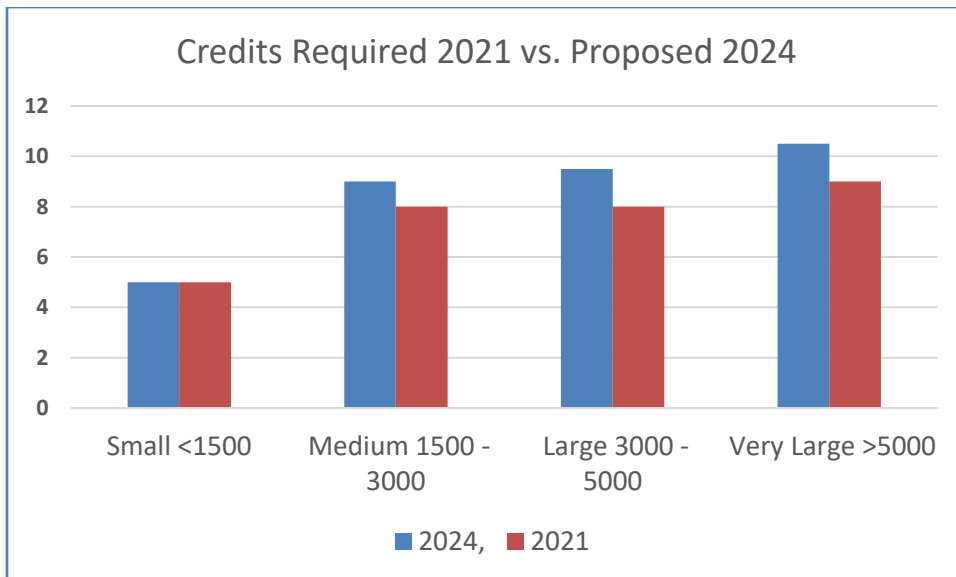
Code being amended: ☐ Commercial Provisions ☒ Residential Provisions

Code Section # R406.3

#### Brief Description:

Divide "medium" dwelling category into two categories, "medium" and "large." Change description of dwelling larger than 5,000 ft<sup>2</sup> to "very large." Increase number of credits required as follows:

- No change to credits required for small dwelling.
- One additional credit for medium dwelling.
- 1.5 additional credits for large and very large dwellings.
- No change to credits required for R-2 dwelling units



#### Proposed code change text:

**R406.3 Additional energy efficiency requirements.** Each dwelling unit in a residential building shall comply with sufficient options from Tables R406.2 and R406.3 so as to achieve the following minimum number of credits:

1. Small Dwelling Unit: 5.0 credits  
Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building greater than 500 square feet of heated floor area but less than 1500 square feet.

May 29, 2025

2. Medium Dwelling Unit: ~~8.0~~ 9.0 credits  
~~All dwelling units that are not included in #1, #3 or #4.~~  
Dwelling units 1500 square feet or larger and not greater than 3000 square feet in conditioned floor area
3. Large Dwelling Unit: ~~9.0~~ 10.00 credits  
~~Dwelling units exceeding 5000 square feet of conditioned floor area.~~  
Dwelling units 3000 square feet or larger and not greater than 5000 square feet in conditioned floor area
4. Very Large Dwelling Unit: 11.0 credits  
Dwelling units larger than 5000 square feet in conditioned floor area
5. Dwelling units serving Group R-2 occupancies: 6.5 credits  
See Section R401.1 and *residential building*  
in Section R202 for Group R-2 scope.
6. Additions 150 square feet to 500 square feet: 2.0 credits

#### Purpose of code change:

This proposal decreases the annual energy use of medium and large-size homes, while allowing market-driven selections of the specific efficiency features to be included.

With the 2024, 2027, and 2030 codes, we're required by state law to reduce energy usage from the current 42% down to 30% of the 2006 code baseline, a glide path of 4% of 2006 code energy use each cycle, or approximately 10% of 2021 code energy use each cycle.

A medium-size home in Spokane, designed to the 2021 WSEC, is expected to consume 13,011 kWh/yr, and a Seattle home 9,581 kWh/yr. One additional credit reduces energy use by approximately 1,200 kWh, which is nearly 1/3 of the way to the 2031 70% reduction target for Spokane, and somewhat more than 1/3 of the way to the Seattle target.

This proposal does not increase the credits required for small homes or R-2 dwelling units, both because these are inherently more efficient than larger homes, and to be mindful of affordability concerns.

Your amendment must meet one of the following criteria. Select at least one:

- |  |   |
|--|---|
| <input type="checkbox"/> Addresses a critical life/safety need.  | <input type="checkbox"/> Consistency with state or federal regulations. |
| <input type="checkbox"/> The amendment clarifies the intent or application of the code.  | <input type="checkbox"/> Addresses a unique character of the state.     |
| <input checked="" type="checkbox"/> Addresses a specific state policy or statute.<br>(Note that energy conservation is a state policy) | <input type="checkbox"/> Corrects errors and omissions.                 |

Check the building types that would be impacted by your code change:

- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Single family/duplex/townhome | <input type="checkbox"/> Multi-family 4 + stories | <input type="checkbox"/> Institutional |
| <input type="checkbox"/> Multi-family 1 – 3 stories               | <input type="checkbox"/> Commercial / Retail      | <input type="checkbox"/> Industrial    |



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Your name	Duane Jonlin	Email address	duane.jonlin@seattle.gov
Your organization	City of Seattle	Phone number	206-233-2781
Other contact name	<a href="#">Click here to enter text.</a>		

## **Economic Impact Data Sheet**

**Is there an economic impact:** ☒ Yes ☐ No

Briefly summarize your proposal's primary economic impacts and benefits to building owners, tenants, and businesses.

Increases construction costs for medium and large homes, not for smaller homes. Energy savings are similar for any selection.

Provide your best estimate of the **construction cost** (or cost savings) of your code change proposal?

\$1000/ dwelling unit for one additional credit, \$1,500/ dwelling unit for 1.5 credits.

For solar, assume 1.1 kW for 1,200 kWh annual production in Seattle, 1.0 kW in Spokane. \$3,200 per credit. (2025 Costs from Energy Sage)

Selections of efficiency credits vary, and the costs associated with those credits vary greatly.

Provide your best estimate of the **annual energy savings** (or additional energy use) for your code change proposal?

Click here to enter text.KWH/ square foot (or) Click here to enter text.KBTU/ square foot

- No change for small dwelling units
- 1.0 credit = 1200 KWH/yr for medium dwelling unit
- 1.5 credits = 1800 KWH/yr for large and very large dwelling unit

One additional energy credit (1,200 kWh) will equal approximately ten percent of annual energy use.

List any **code enforcement** time for additional plan review or inspections that your proposal will require, in hours per permit application:

None

***Small Business Impact.*** Describe economic impacts to small businesses:

None

***Housing Affordability.*** Describe economic impacts on housing affordability:

Modest cost increase for new homes larger than 3,000 ft<sup>2</sup>, offset by decreased utility bills.

1200 kWh x \$0.11 = \$132/yr savings = 7.5 year simple payback if additional credit costs \$1,000

***Other.*** Describe other qualitative cost and benefits to owners, to occupants, to the public, to the environment, and to other stakeholders that have not yet been discussed:

**Instructions:** Send this form as an email attachment, along with any other documentation available, to: [sbcc@des.wa.gov](mailto:sbcc@des.wa.gov). For further information, call the State Building Code Council at 360-407-9255.

**All questions must be answered to be considered complete. Incomplete proposals will not be accepted.**