



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

Washington State Energy Code Development Standard Energy Code Proposal Form

Jan 2022

Log No. 24-RE-031 Vers. 2 Update 07/08/25

Code being amended: ☐ Commercial Provisions ☒ Residential Provisions

2024 Washington State Energy Code—Residential, WAC 51-11R

Code Section # R406.3

Brief Description:

Effectively make for multiple smaller dwelling unit size brackets for compliance with R406.3.

Proposed code change text: (Copy the existing text from the Integrated Draft, linked above, and then use underline for new text and ~~strikeout~~ for text to be deleted.)

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 with less than or equal to 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 or equal to 1500 square feet.
2. Medium Dwelling Unit: Equation X-18-0 credits
~~All dwelling units with greater than 1500, but less than or equal to 2500, square feet of conditioned floor area, that are not included in #1, #3 or #4.~~
3. Large Dwelling Unit: Equation X-29-0 credits
Dwelling units ~~exceeding with greater than 5000~~ 2500, but less than or equal to 4200, square feet of conditioned floor area.
4. Extra Large Dwelling Unit. 10 credits.
Dwelling units with greater than 4200 square feet of conditioned floor area.
- ~~3-5.~~ 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.
- ~~4-6.~~ Additions 150 square feet to 500 square feet: 2.0 credits

Equation X-1

$6 + ((Y - 1500) / 250) * 0.5$ (Rounded to the nearest 0.5)

Where:

Y = The total square footage of conditioned floor area.

Equation X-2

$8 + ((Y - 2500) / 500) * 0.5$ (Rounded to the nearest 0.5)

Where:

Y = The total square footage of conditioned floor area.

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project.

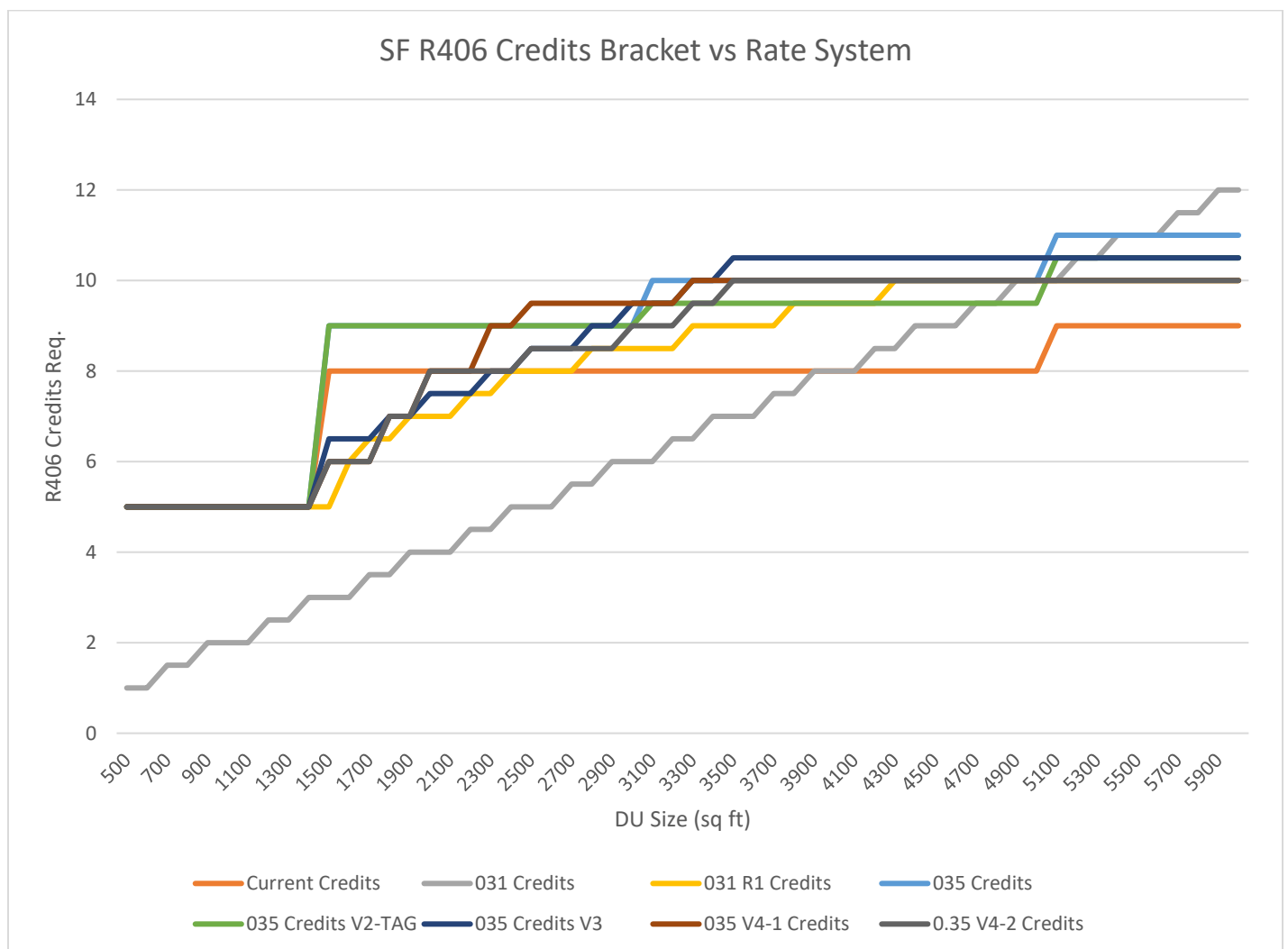
Purpose of code change:

Revision 1:

Based on feedback from an informal workgroup, recommending increasing number of credits median/average homes from 1500-2500 are required to get from original proposal. While trying to mesh some ideas from proposal 24-RE-035, which increases credit requirements.

The intent is to make credit increases more gradual while lining up with current code and then 2024 increases at earlier points, while making the bulk of median and small new homes more affordable while still having a reasonable level of energy efficiency.

Removed changes to R-2, Additions, and Small Dwelling Units.



Original explanation:

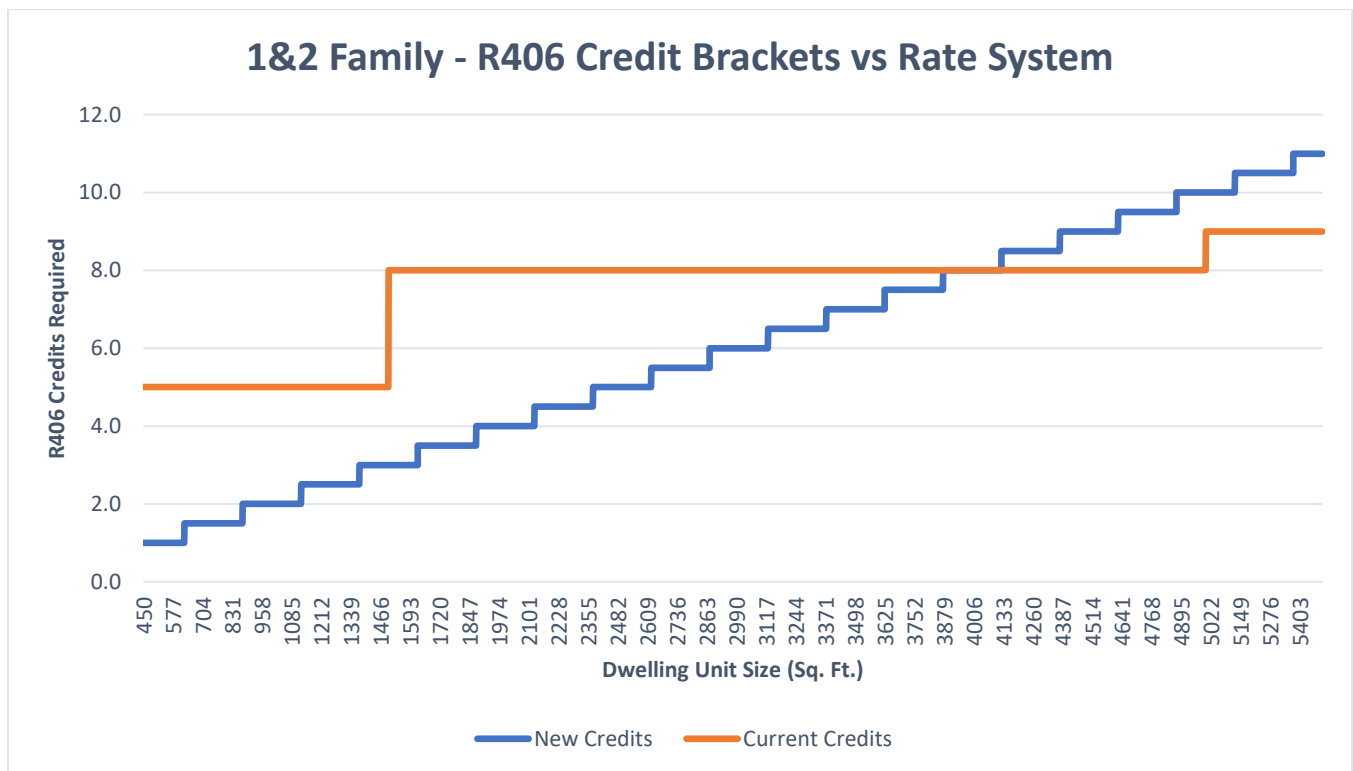
We have heard concerns from residential builders that the current brackets for R406.3 create large cliffs that disproportionately affect construction costs. A building at 1499 sq ft only needs 5 credits but a similar home design at 1501 sq ft needs 8 credits. Another building at 2500 sq ft needs 8 credits, but a building five times the size at 12,500 sq ft

only needs one more credit for compliance. The goal of this proposal is to explore making gradual increases in the number of credits required to incentivize smaller dwelling unit sizes while seeking to maintain the same or an effectively similar rate of credits per sq ft as the 2021 WSEC requires.

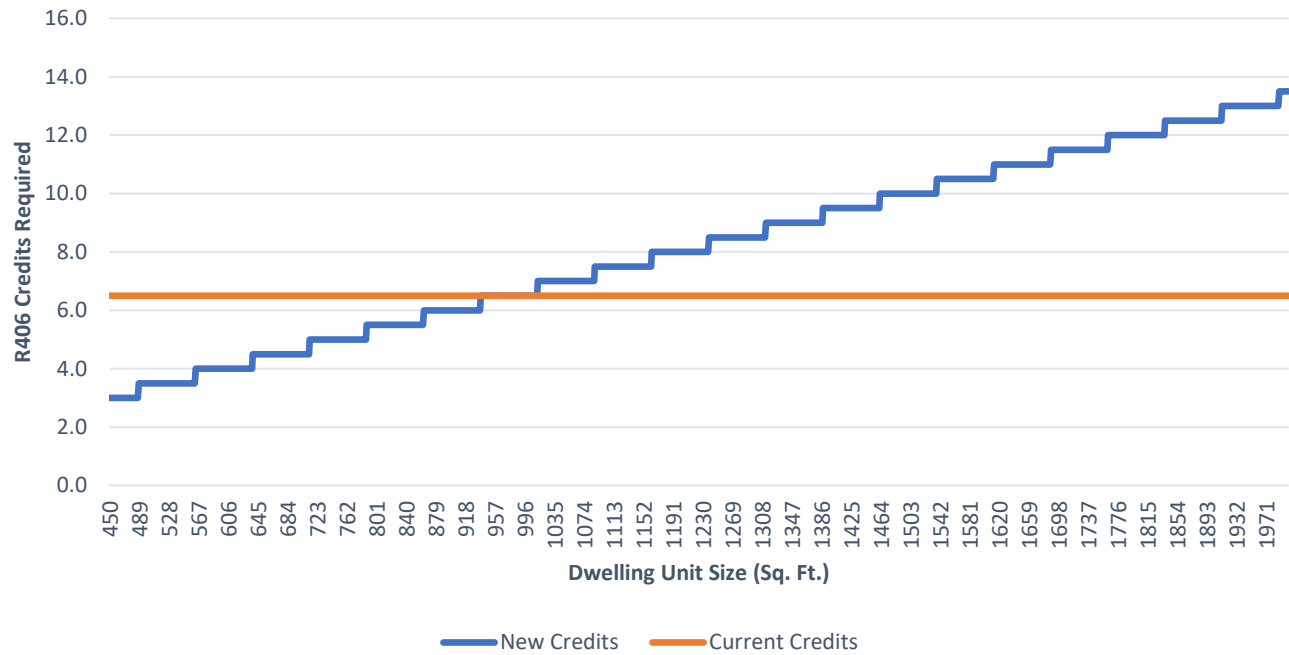
Table 1 – 2021 WSEC Average R406.3 Credits Required Per Sq Ft

DU Category	Req Credits	Min Size (Sq Ft)	Max Size (Sq Ft)	Min Rate (Size/0.5 Credit)	Max Rate (Size/0.5 Credit)	Avg Rate (Size/0.5 Credit)
Small	5	450	1500	45	150	98
Medium	8	1500	5000	94	313	203
Large	9	5000	12000	278	667	472
R-2	6.5	120	1500	9	115	62
Small Additions	2	150	500	38	125	81

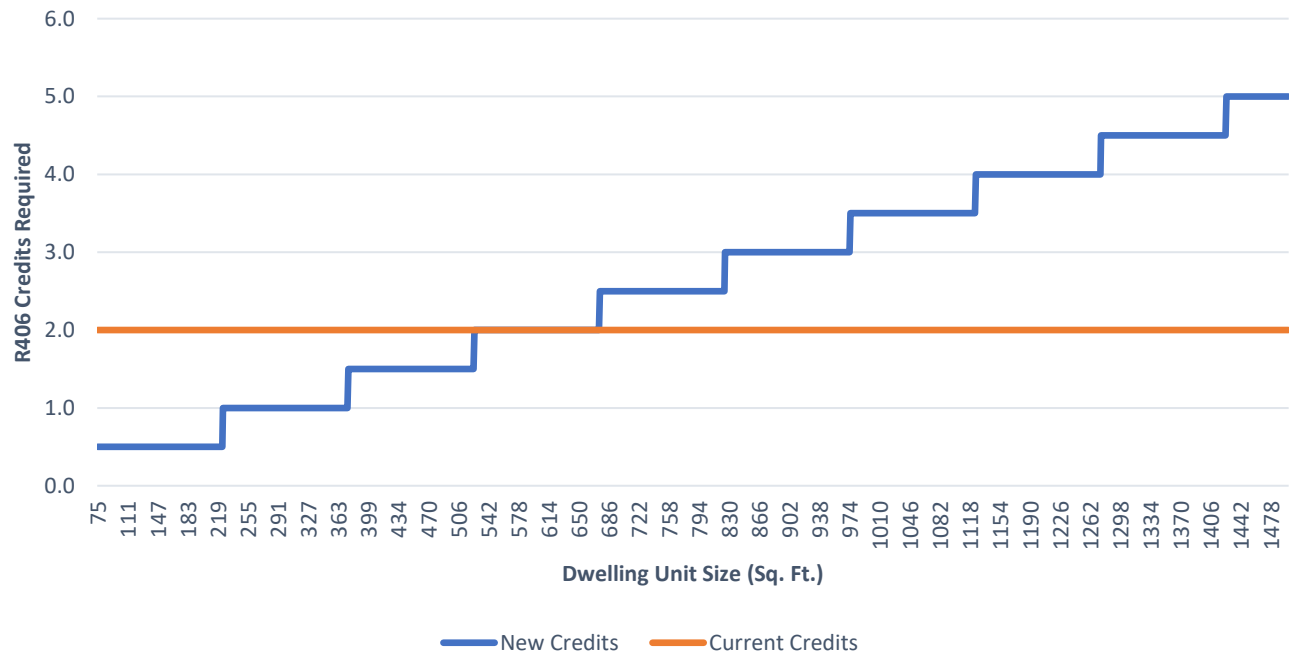
Red text denotes sq ft min/max that isn't specified in the code. Assumptions were made based on market research.



R-2 - R406 Credit Brackets vs Rate System



Additions - R406 Credit Brackets vs Rate System



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 checked="" type="checkbox"/> The amendment clarifies the intent or application of the code. | <input type="checkbox"/> Addresses a unique character of the state. |
| <input type="checkbox"/> Addresses a specific state policy or statute.
(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 checked="" type="checkbox"/> Multi-family 1 – 3 stories | <input type="checkbox"/> Commercial / Retail | <input type="checkbox"/> Industrial |

Your name Patrick Hanks

Other contact name [Click here to enter text.](#)

Your organization Building Industry Association of
Washington

Email address patrickh@biaw.com

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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. If you answered "No" above, explain your reasoning.

Cost of construction and energy use will change depending on dwelling unit size. For larger units construction cost will likely increase and energy use may decrease compared to 2021 WSEC, due to needing to select more credit options. For smaller units, construction cost will likely decrease and energy use may increase compared to the 2021 WSEC, due to needing to select fewer credit options.

Provide your best estimate of the **construction cost** (or cost savings) of your code change proposal? (See OFM Life Cycle Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). **Webinars on the tool can be found [Here](#) and [Here](#)**)

\$[Click here to enter text.](#)/square foot (For residential projects, also provide \$[Click here to enter text.](#)/ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

Exact estimates will vary depending on building size, credits chosen, and location.

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

(For residential projects, also provide [Click here to enter text.](#)KWH/KBTU / dwelling unit)

Show calculations here, and list sources for energy savings estimates, or attach backup data pages

Exact estimates will vary depending on building size, credits chosen, and location.

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

May require 0.25 hours of additional plan review time per permit application for code officials to check how many credits the proposed building needs to comply. Many jurisdictions use forms for single family compliance which would likely reduce the additional plan review time.

Small Business Impact. Describe economic impacts to small businesses:

Housing Affordability. Describe economic impacts on housing affordability:

The intent of this proposal is to better incentivize smaller housing construction without drastically penalizing larger units. While there are many factors that influence housing unit sizes, we believe this will help add to factors pushing towards more housing under 2000 sq ft.

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. 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.