



2021 SEC Electrical & Solar Code Change Proposals

- **Red Text: Introductory comment for each proposed change**
- **Yellow highlight: New proposals for this code**
- **Aqua highlight: Existing 2018 Seattle amendments transferred to 2021 code** (Typically, existing Seattle amendments carried forward are *not* shown in this document.)

Table C405.2.1 Add parking facilities to occ sensor list. Seems like parking needs to be part of this list, since the lighting is required to be reduced by 30% after 20 minutes of no occupant detection.

Table C405.4.2.1

Occupant sensor control locations

	Comply with Section
<u>Classrooms/lecture/training rooms</u>	<u>C405.2.1.1</u>
<u>Conference/meeting/multipurpose rooms</u>	<u>C405.2.1.1</u>
<u>Copy/print rooms</u>	<u>C405.2.1.1</u>
<u>Lounge/breakrooms</u>	<u>C405.2.1.1</u>
<u>Enclosed offices</u>	<u>C405.2.1.1</u>
<u>Open plan office areas</u>	<u>C405.2.1.3</u>
<u>Restrooms</u>	<u>C405.2.1.1</u>
<u>Storage rooms</u>	<u>C405.2.1.1</u>
<u>Locker rooms</u>	<u>C405.2.1.1</u>
<u>Other spaces 300 square feet (28 m²) or less that are enclosed by floor-to-ceiling height partitions</u>	<u>C405.2.1.1</u>
<u>Warehouse storage areas</u>	<u>C405.2.1.2</u>
<u>Library stacks</u>	<u>C405.2.1.2</u>
<u>Enclosed fire rated stairways</u>	((C405.2.1.5)) C405.2.1.4
<u>Corridors</u>	((C405.2.1.6)) C405.2.1.5
Covered parking	C405.2.10

C405.2.4 Dimming. From 2024 IECC proposal CEPI-156. This proposal requires dimming capability in most major space types. Why didn't we think of this a long time ago? (Existing "light reduction control" language is struck.)

~~((C405.2.3))~~ **C405.2.4 Dimming controls.**

Dimming controls complying with Section C405.2.3.1 are required for general lighting in the following space types:

1. Classroom / lecture hall / training room.
2. Conference / multipurpose / meeting room.
3. In a dining area for bar/lounge or leisure, family dining.
4. Laboratory.
5. Lobby.
6. Lounge / Break Room.
7. Offices.
8. Gymnasium / fitness center.
9. Library reading room.
10. In a health care facility for imaging rooms, exam rooms, nursery, and nurses' station.
11. Spaces not provided with occupant sensor controls complying with Section C405.2.1.1.

Exceptions:

1. Luminaires controlled by daylight responsive controls complying with Section C405.2.4.
2. Luminaires controlled by special application controls complying with Section C405.2.5.

~~((C405.2.3.4)) C405.2.4.1 Light reduction Dimming control function.~~

Spaces required to have dimming control shall be provided with *manual* controls that allow lights to be dimmed from full output to 10 percent of full power or lower with continuous dimming, as well as turning lights off. *Manual* control shall be provided within each room to dim lights.

C405.2.6 Change “nonhuman life forms” phrase. “Plants and animals” should do fine. “Nonhuman life forms” sounds like something out of Star Wars.

C405.2.6 Additional lighting controls. Specific application lighting shall be provided with controls, in addition to controls required by other sections, for the following:

- ...
3. Lighting for life support of **((nonhuman life forms)) plants and animals** and food warming, shall be controlled by a dedicated control that is independent of the controls for other lighting within the room or space. **((Each control zone shall be no greater than the area served by a single luminaire or 4,000 square feet (372 m²), whichever is larger.))**

C405.4.1 Total connected interior lighting power. This was added two code cycles ago as a staff suggestion, but I don't believe that it's ever been used. Delete entirely.

((As an option, in areas of the building where all interior lighting equipment is fed from dedicated lighting branch circuits, the total connected interior lighting power is permitted to be

~~calculated as the sum of the capacities of the lighting branch circuits serving those areas. For the purposes of this section, the connected interior lighting power of a 20-ampere circuit is considered to be 16 amperes, and that of a 15-ampere circuit is 12 amperes. Use of this alternative and the boundaries of the applicable areas shall be clearly documented on the electrical construction documents.))~~

C405.4.2.2.1 Retail lighting power. From 2024 IECC CECPI-7 proposal updating retail allowances for the first time in decades.

C405.4.2.2.1 Additional interior lighting power. Where using the Space-by-Space Method, an increase in the interior lighting power allowance is permitted for specific lighting functions. Additional power shall be permitted only where the specified lighting is installed in addition to and automatically controlled separately from *general lighting*, in accordance with Section C405.2.6. This additional power shall be used only for the specified luminaires and shall not be used for any other purpose.

An increase in the interior lighting power allowance is permitted for lighting equipment to be installed in sales areas specifically to highlight merchandise. The additional lighting power shall be determined in accordance with Equation 4-14.

(Equation 4-14)

Additional Interior Lighting Power Allowance = 500 watts + (Retail Area 1 × ~~((0.45))0.40~~ W/ft²) + (Retail Area 2 × ~~((0.45))0.40~~ W/ft²) + (Retail Area 3 × 1.05 ~~((1.05))0.70~~ W/ft²) + (Retail Area 4 × 1.87 ~~((1.87))1.00~~ W/ft²).

Where:

Retail Area 1 = The floor area for all products not listed in Retail Area 2, 3 or 4.

Retail Area 2 = The floor area used for the sale of vehicles, sporting goods and small electronics.

Retail Area 3 = The floor area used for the sale of furniture, clothing, cosmetics and artwork.

Retail Area 4 = The floor area used for the sale of jewelry, crystal and china.

EXCEPTION: Other merchandise categories are permitted to be included in Retail Areas 2 through 4, provided that justification documenting the need for additional lighting power based on visual inspection, contrast, or other critical display requirement is *approved* by the code official.

C405.4.2.2.1 Retail lighting power. From 2024 IECC CECPI-7: Reduces retail LPA commensurate with the increased efficiency of LED lighting systems.

C405.4.2.2.1 Additional interior lighting power. Where using the Space-by-Space Method, an increase in the interior lighting power allowance is permitted for specific lighting functions. Additional power shall be permitted only where the specified lighting is installed in addition to and automatically controlled separately from *general lighting*, in accordance with Section C405.2.6. This additional power shall be used only for the specified luminaires and shall not be used for any other purpose.

An increase in the interior lighting power allowance is permitted for lighting equipment to be installed in sales areas specifically to highlight merchandise. The additional lighting power shall be determined in accordance with Equation 4-14.

(Equation 4-14)

$$\text{Additional Interior Lighting Power Allowance} = 500 \text{ watts} + (\text{Retail Area 1} \times \mathbf{0.40} \text{ W/ft}^2) + (\text{Retail Area 2} \times \mathbf{0.40} \text{ W/ft}^2) + (\text{Retail Area 3} \times 1.05 \mathbf{0.70} \text{ W/ft}^2) + (\text{Retail Area 4} \times 1.87 \mathbf{1.00} \text{ W/ft}^2).$$

Table C405.4.2.(1) building area method. 2024 IECC reduces LPAs by about 5%, so if Seattle code reduces them 10% below the 2024, it will result in about a 5% overall reduction. LPAs in healthcare, correctional, and facilities for visually impaired are not reduced, to avoid any conflict with institutional guidelines.

Note several rows in 2018 space by space table have been eliminated in 2021 table. No need to keep them. Footnotes c & d are stricken because commercial code no longer references residential energy code.

Table C405.4.2(1)

Interior Lighting Power Allowances—Building Area Method

NOTE: Reduce all the interior LPDs 10% below 2024 IECC (about 5% below current WA LPDs)

Building Area Type	LPD (w/ft²)	LPD (w/ft²)	IECC 2024	WA 2021 (-10%)
Automotive facility	0.64	<u>0.58</u>	0.73	<u>0.66</u>
Convention center	0.64	<u>0.58</u>	0.64	<u>0.58</u>
Court house	0.79	<u>0.71</u>	0.75	<u>0.68</u>
Dining: Bar lounge/leisure	0.79	<u>0.71</u>	0.74	<u>0.68</u>
Dining: Cafeteria/fast food	0.72	<u>0.65</u>	0.70	<u>0.63</u>
Dining: Family	0.71	<u>0.64</u>	0.65	<u>0.59</u>
Dormitory ^{a,b}	0.46	<u>0.41</u>	0.52	<u>0.47</u>
Exercise center	0.67	<u>0.60</u>	0.72	<u>0.65</u>
Fire station ^a	0.54	<u>0.49</u>	0.56	<u>0.51</u>
Gymnasium	0.75	<u>0.68</u>	0.75	<u>0.68</u>
Health care clinic	0.70	<u>0.63</u>	0.77	<u>0.69</u>
Hospital ^a	0.84	0.84	0.92	<u>0.83</u>
Hotel/motel ^{a,b}	0.56	<u>0.50</u>	0.53	<u>0.48</u>

Library	0.83	<u>0.75</u>	0.83	<u>0.75</u>
Manufacturing facility	0.82	<u>0.74</u>	0.82	<u>0.74</u>
Motion picture theater	0.44	<u>0.40</u>	0.43	<u>0.39</u>
Multifamily ^c	0.41	<u>0.37</u>	0.46	<u>0.42</u>
Museum	0.55	<u>0.50</u>	0.56	<u>0.51</u>
Office	0.64	<u>0.58</u>	0.62	<u>0.62</u>
Parking garage	0.14	<u>0.13</u>	0.17	<u>0.15</u>
Penitentiary	0.65	0.65	0.65	<u>0.65</u>
Performing arts theater	0.84	<u>0.76</u>	0.82	<u>0.74</u>
Police station	0.66	<u>0.60</u>	0.62	<u>0.56</u>
Post office	0.65	<u>0.59</u>	0.64	<u>0.58</u>
Religious building	0.67	<u>0.60</u>	0.66	<u>0.60</u>
Retail	0.84	<u>0.76</u>	0.78	<u>0.70</u>
School/university	0.70	<u>0.63</u>	0.70	<u>0.63</u>
Sports arena	0.62	<u>0.54</u>	0.73	<u>0.66</u>
Town hall	0.69	<u>0.62</u>	0.67	<u>0.60</u>
Transportation	0.50	<u>0.45</u>	0.56	<u>0.51</u>
Warehouse	0.40	<u>0.36</u>	0.45	<u>0.41</u>
Workshop	0.91	<u>0.82</u>	0.86	<u>0.78</u>

Table C405.4.2.(2) space by space method. 2024 IECC reduces LPAs by about 5%, so if Seattle code reduces them 10% below the 2024, it will result in about a 5% overall reduction – same as building area method. Note that grey highlight indicates no change from ASHRAE recommendation, as these are for healthcare, correctional, and facilities for the visually impaired, which may be impacted by additional regulations.

Common Space-by-Space Types^a	LPD (w/ft2)	LPD (w/ft2)	2021 IECC CECPI-7	10% below new IECC LPAs
Atrium—Less than 20 feet in height	0.39	<u>0.35</u>	<u>0.41</u>	
Atrium - 20 to 40 feet in height	0.48	<u>0.43</u>	<u>0.41</u>	<u>0.39</u>
Atrium - Above 40 feet in height	0.60	<u>0.54</u>	<u>0.51</u>	<u>0.46</u>
Audience/seating area - Permanent				
In an auditorium	0.61	<u>0.55</u>	<u>0.57</u>	<u>0.52</u>
In a gymnasium	0.23	<u>0.21</u>	<u>0.23</u>	<u>0.21</u>
In a motion picture theater	0.27	<u>0.24</u>	<u>0.27</u>	<u>0.24</u>
In a penitentiary	0.67	0.67	<u>0.56</u>	0.56

Common Space-by-Space Types^a	LPD (w/ft²)	LPD (w/ft²)	2021 IECC CECPI-7	10% below new IECC LPAs
In a performing arts theater	1.16	1.04	1.09	0.98
In a religious building	0.72	0.65	0.72	0.65
In a sports arena	0.33	0.30	0.27	0.24
Otherwise	0.23	0.21	0.33	0.3
Banking activity area ⁿ	0.61	0.55	0.56	0.51
Breakroom (see lounge/breakroom)				
Classroom/lecture hall/training room				
In a penitentiary	0.89	0.89	0.74	0.74
Otherwise ^m	0.71 ^m	0.64	0.72	0.65
Computer room, data center	0.94	0.85	0.75	0.68
Conference/meeting/multipurpose	0.97	0.87	0.88	0.79
Confinement cell	0.70	0.63	???	Delete row?
Copy/print room	0.31	0.28	0.56	0.51
Corridor				
In a facility for the visually impaired used primarily by the staff ^b	0.71	0.71	0.71	0.71
In a hospital	0.71	0.71	0.61	0.61
In a manufacturing facility	0.41	0.37	???	Delete row?
Otherwise ^{c,g}	0.41	0.37	0.44	0.40
Courtroom ^c	1.20	1.08	1.08	0.97
Dining area				
In a penitentiary	0.42	0.42	0.35	0.35
In a facility for the visually impaired used primarily by the staff ^b	1.27	1.27	1.22	1.22
In a bar/lounge or leisure dining ⁿ	0.86	0.77	0.76	0.69
In cafeteria or fast food dining	0.40	0.36	0.36	0.33
In a family dining area ⁿ	0.60	0.54	0.52	0.47
Otherwise	0.43	0.39	0.42	0.38
Electrical/mechanical	0.43	0.39	0.71	0.64
Emergency vehicle garage	0.52	0.47	0.51	0.46
Food preparation	1.09	0.98	1.19	1.07
Guest room ^{e,d}	0.41	0.37	???	Delete row?
Laboratory				
In or as a classroom	1.11	1.00	1.05	0.95
Otherwise	1.33	1.20	1.21	1.09
Laundry/washing area	0.53	0.48	0.51	0.46

Common Space-by-Space Types^a	LPD (w/ft²)	LPD (w/ft²)	2021 IECC CECPI-7	10% below new IECC LPAs
Loading dock, interior	0.88	0.79	0.88	0.79
Lobby ^c				
In a facility for the visually impaired used primarily by the staff ^b	1.69	1.69	1.44	1.44
For an elevator	0.65	0.59	0.64	0.58
In a hotel	0.51	0.46	0.48	0.43
In a motion picture theater	0.23	0.21	0.20	0.18
In a performing arts theater	1.25	1.13	1.21	1.09
Otherwise	0.84	0.76	0.80	0.72
Locker room	0.52	0.47	0.43	0.39
Lounge/breakroom ⁿ				
In a health care facility ⁿ	0.42	0.42	0.77	0.77
Otherwise ⁿ	0.59	0.53	0.55	0.50
Office				
Enclosed ≤ 250	0.74	0.67	0.73	0.66
Enclosed > 250	0.66	0.59	???	Delete row? One row all sizes
Open plan	0.61	0.55	0.56	0.51
Parking area, interior	0.15	0.14	0.11	0.10
Pharmacy area	1.66	1.66	1.59	1.43
Restroom				
In a facility for the visually impaired used primarily by the staff ^b	1.26	1.26	0.96	0.96
Otherwise ⁿ	0.63	0.57	0.74	0.67
Sales area	1.05	0.95	0.85	0.87
Seating area, general	0.23	0.21	0.21	0.19
((Stairway (see space containing stairway)))				
<u>Security screening general area</u>			0.64	0.64
<u>Security screening in transportation facilities</u>			0.93	0.93
<u>Security screening transportation waiting area</u>			0.56	0.56
Stairwell ⁿ	0.49	0.44	0.47	0.43
Storage room				
< 50 ft ²	0.51	0.46	???	
50-100 ft ²	0.38	0.34	???	
All other storage	0.38	0.34	0.35	0.32
Vehicular maintenance	0.60	0.54	0.59	0.53

Common Space-by-Space Types^a	LPD (w/ft²)	LPD (w/ft²)	2021 IECC CECPI-7	10% below new IECC LPAs
Workshop	1.26	<u>1.13</u>	<u>1.17</u>	<u>1.05</u>
Building Specific Space-by-Space Types^a	<u>LPD (w/ft²)</u>	<u>LPD (w/ft²)</u>		
Automotive (see vehicular maintenance)				
Convention center - Exhibit space	0.61	<u>0.55</u>	<u>0.50</u>	<u>0.45</u>
Dormitory living quarters ^{a,b}	0.50	<u>0.45</u>	???	Delete row?
Facility for the visually impaired ^b				
In a chapel (and not used primarily	0.70	0.70	0.58	0.58
In a recreation room (and not used staff) ^b	1.77	1.77	1.20	1.20
Fire stations ^g				
Sleeping quarters	0.23	<u>0.21</u>	???	Delete row?
<u>Gaming establishments</u>				
<u>High limits game</u>			1.68	1.51
<u>Slots</u>			0.54	0.49
<u>Sportsbook</u>			0.82	0.74
<u>Table games</u>			1.09	0.98
Gymnasium/fitness center				
In an exercise area	0.90	0.83	0.82	0.74
In a playing area	0.85	0.77	0.82	0.74
Health care facility				
In an exam/treatment room	1.40	1.40	1.33	1.33
In an imaging room	0.94	0.94	0.94	0.94
In a medical supply room	0.62	0.62	0.56	0.56
In a nursery	0.92	0.92	0.87	0.87
In a nurse's station	1.17	1.17	1.07	1.07
In an operating room	2.26	2.26	2.26	2.26
In a patient room ^g	0.68	0.68	???	Delete row?
In a physical therapy room	0.91	0.91	0.82	0.82
In a recovery room	1.25	1.25	1.18	1.18
<u>In a telemedicine room</u>			1.44	1.44
Library				
In a reading area ⁿ	0.96	0.86	0.86	0.78
In the stacks	1.10	0.99	1.18	1.06
Manufacturing facility				
In a detailed manufacturing area	0.80	0.72	0.75	0.68

Common Space-by-Space Types ^a	LPD (w/ft ²)	LPD (w/ft ²)	2021 IECC CECPI-7	10% below new IECC LPAs
In an equipment room	0.76	0.68	0.73	0.66
In an extra high bay area (greater than floor-to-ceiling height)	1.42	1.28	1.36	1.22
In a high bay area (25 - 50-foot floor-to-ceiling height)	1.24	1.12	1.24	1.12
In a low bay (< 25-foot floor-to-ceiling height)	0.86	0.77	0.86	0.78
Museum				
In a general exhibition area	0.31	0.28	0.31	0.28
In a restoration room	1.10	0.99	1.24	1.03
Performing arts theater dressing/fitting room	0.41	0.37	0.39	0.35
Post office - Sorting area	0.76	0.69	0.71	0.64
Religious buildings				
In a fellowship hall ⁿ	0.54	0.49	0.50	0.45
In a worship/pulpit/choir area ⁿ	0.85	0.77	0.75	0.68
Retail facilities				
In a dressing/fitting room	0.51	0.46	0.45	0.41
<u>Hair salon</u>			0.65	0.59
<u>Nail salon</u>			0.75	0.68
In a mall concourse	0.82	0.74	0.57	0.52
<u>Massage space</u>			0.81	0.73
Sports arena - Playing area				
For a Class 1 facility ⁱ	2.94	2.94	2.86	2.63
For a Class 2 facility ^j	2.01	2.01	1.98	1.78
For a Class 3 facility ^k	1.30	1.30	1.29	1.16
For a Class 4 facility ^l	0.86	0.86	0.86	0.78
Sports arena - Pools				
<u>For a Class 1 facilityⁱ</u>			2.20	1.98
<u>For a Class 2 facility^j</u>			1.47	1.32
<u>For a Class 3 facility^k</u>			0.99	0.89
<u>For a Class 4 facility^l</u>			0.59	0.53
Transportation				
<u>Airport Hangar</u>			1.36	1.22
In a baggage/carousel area	0.39	0.35	0.28	0.25
In an airport concourse	0.25	0.23	0.49	0.44
At a terminal ticket counter ⁿ	0.51	0.46	0.40	0.36
<u>Passenger loading area</u>			0.71	0.64

Common Space-by-Space Types ^a	LPD (w/ft ²)	LPD (w/ft ²)	2021 IECC CECPI-7	10% below new IECC LPAs
Warehouse - Storage area				
For medium to bulky palletized items	0.33	0.30	0.33	0.30
For smaller, hand-carried items	0.69	0.62	0.69	0.63

For SI: 1 foot = 304.8 mm, 1 watt per square foot = 10.76 w/m².

- a. In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
- b. A 'Facility for the Visually Impaired' is a facility that is licensed or will be licensed by local or state authorities for senior long-term care, adult daycare, senior support or people with special visual needs.
- ~~c. Where sleeping units are excluded from lighting power calculations by application of Section R404.1, neither the area of the sleeping units nor the wattage of lighting in the sleeping units is counted.~~
- ~~d. Where dwelling units are excluded from lighting power calculations by application of Section R404.1, neither the area of the dwelling units nor the wattage of lighting in the dwelling units is counted.~~
- ~~e.c.~~ Class I facilities consist of professional facilities; and semiprofessional, collegiate, or club facilities with seating for 5,000 or more spectators.
- ~~f.d.~~ Class II facilities consist of collegiate and semiprofessional facilities with seating for fewer than 5,000 spectators; club facilities with seating for between 2,000 and 5,000 spectators; and amateur league and high school facilities with seating for more than 2,000 spectators.
- ~~g.e.~~ Class III facilities consist of club, amateur league and high school facilities with seating for 2,000 or fewer spectators.
- ~~h.f.~~ Class IV facilities consist of elementary school and recreational facilities; and amateur league and high school facilities without provision for spectators.
- G For corridors, additional lighting power allowance of 0.25 W/square foot for display lighting and decorative lighting is permitted where provided for aesthetic purposes. Decorative lighting fixtures in corridors are also permitted to provide general lighting.

C405.14.1 Electric-ready at commercial kitchens. Ensuring that restaurants in new buildings have capacity for future electrification, without restricting gas use (today) for restaurants.

C405.14.1 Electric power at gas-fired commercial kitchen appliances. Where gas-fired commercial kitchen appliances are provided in a building permitted under the 2021 or more

recent edition of the Seattle Energy Code, an electrical panel shall be provided within or adjacent to each space in which kitchen equipment is located, sized to serve future electric appliances to replace all gas-fired appliances in the space with a minimum capacity of 12 kVA per kBtu of gas appliance input capacity. The main electric service panel for the building shall be wired to and sized to accommodate all such kitchen appliance panels. A listing shall be provided documenting each gas-fired appliance, an equivalent electric appliance providing the same or greater cooking capacity, and the total amperage required for the kitchen electrical panel.

C408.4.2 High-end trim. From 2024 IECC proposal CEPI-156, High-end trim allows light levels to be set below maximum power, so that it can be adjusted over time as the fixtures degrade.

HIGH-END TRIM. A lighting control setting which limits the maximum power to individual luminaires or groups of luminaires in a space.

C408.4.2 High-end trim. Where lighting controls are configured for *high-end trims*, verify the following:

1. That *high-end trim* has been set.
2. That the calibration adjustment equipment is located for *ready access* only by authorized personnel.
3. That lighting controls with *ready access* for users cannot increase the lighting power above the maximum level established by the *high-end trim* controls.

Renewables

C411.1 Renewable Energy. Step up renewables to be 0.75W/ft² instead of WA 0.50. This would match the 2024 IECC proposal. The credits required for exception 4 are adjusted to current code.

C411.1 On-site renewable energy. Each new building, or addition larger than 10,000 square feet of gross *conditioned floor area*, shall include a renewable energy generation system consisting of not less than ~~((0.5))~~ **0.75 W/ft²** or 1.7 Btu/ft² multiplied by the sum of the *gross conditioned floor area*.

EXCEPTIONS: Buildings that qualify for and utilize one of the following are not required to provide onsite renewable energy, but are required to comply with Section C411.1.1.

1. Any building where more than 50 percent of the roof area is shaded from direct beam sunlight by natural objects or by structures that are not part of the building for more than 2500 annual hours between 8:00 a.m. and 4:00 p.m.
2. Any building where more than 80 percent of the roof area is covered by any combination of equipment other than for on-site renewable energy systems, planters, vegetated space, skylights or occupied roof deck.

3. Buildings which can document they do not have adequate roof area to install the required on-site solar and that comply with Section C411.1.1 may install a lesser amount of on-site renewables but not zero.

4. Additional energy measure credits. The on-site renewable energy generation system is not required if additional energy measure credits beyond those required by Table C406.1 are obtained in a number at least equal to the number of credits that would be awarded to the building for a renewable energy generation system of 0.75 W/ft² multiplied by the sum of the gross conditioned floor area. These additional energy measure credits cannot be used to satisfy any other requirement of this code. It is permissible to proportionally substitute any portion of the on-site renewable energy requirement with an equivalent portion of the additional energy measure credits required by this exception.

Table C411.2.1 Add “Renewable Energy Investment Fund” to off-site options. Just in case WA creates such a fund. From 2024 IECC “zero code” appendix update.

**Table C411.2.1
Multipliers for Renewable Energy Procurement Methods**

<u>Location</u>	<u>Renewable Energy Source</u>	<u>Renewable Energy Factor</u>		
		<u>In the state of Washington</u>	<u>Western Interconnected</u>	<u>In the states of Oregon or Idaho</u>
On-site	On-site renewable energy system	1	NA	NA
Off-site	Directly owned off-site renewable energy system that begins operation after submission of the initial permit application	0.95	0.75	0.85
Off-site	Community renewable energy facility that begins operation after submission of the initial permit application	0.95	0.75	0.85
Off-site	Directly owned off-site renewable energy system that begins operation before submission of the initial permit application	0.75	0.55	0.65
Off-site	Community renewable energy facility that begins operation before submission of the initial permit application	0.75	0.55	0.65
Off-site	Renewable Power Purchase Agreement (PPA)	0.75	0.55	0.65
Off-site	Renewable Energy Investment Fund (REIF)	0.95	0.75	0.85

RENEWABLE ENERGY INVESTMENT FUND (REIF). A fund established by the local government or other entity to accept payment from building owners to construct or acquire qualifying renewable energy, together with the associated RECs, on their behalf.

C411.3.1 “Net roof area” definition. Clarify that any deducted “equipment service clearances” can only those required by the manufacturer.

C411.3.1 Minimum area. The minimum area of the solar zone shall be determined by one of the following methods, whichever results in the smaller area:

1. 40 percent of roof area. The roof area shall be calculated as the horizontally projected gross roof area less the area covered by skylights, occupied roof decks, mechanical equipment, mechanical equipment service clearances **required by equipment manufacturer**, and planted areas.

2. 20 percent of electrical service size. The electrical service size is the rated capacity of the total of all electrical services to the building, and the required solar zone size shall be based upon 10 peak watts of photovoltaic per square foot.