AMENDATORY SECTION (Amending WSR 24-16-145, filed 8/7/24, effective 9/7/24)

WAC 51-11C-40620 Section C406.2—Additional energy efficiency credit measures. C406.2 Additional energy efficiency credit measures. ((~~Each~~)) Energy efficiency credit measures used to meet credit requirements for the project shall ((~~include efficiency that is greater than the energy efficiency required for the building type and configuration requirements in Sections C402 through C405. Measures installed in the project that meet the requirements in Sections C406.2.1 through C406.2.14 shall achieve the credits listed for the measure and occupancy group in Table C406.2(1) or Table C406.2(2) or where calculations required by Sections C406.2.1 through C406.2.14 create or modify the table credits, the credits achieved shall be based upon the section calculations. Projects that chose to comply with the fossil fuel pathway in Section C401.3 shall use Table C406.2(2) to achieve credits~~)) exceed the energy efficiency required in Sections C402 through C405. The section references in Tables C406.2(1) through C406.2(9) detail the requirements that must be met to obtain all or part of the credit measure available for the noted

occupancy group and climate zone. Linear interpolation is allowed where multiple efficiency targets are provided.

((~~For mixed fuel space heating systems, the number of space heating energy efficiency credits available for measures with a prorating flag "Heat" are calculated using the following equation:~~

$$~~C_{SH} = CHP_{SH} \times B/C + CFF_{SH} \times (1 - B/C)~~$$

~~Where:~~

~~C_{SH}~~	~~=~~	~~Blended credits for mixed fuel systems.~~
~~CHP_{SH}~~	~~=~~	~~Credits available in Table C406.2(1).~~
~~CFF_{SH}~~	~~=~~	~~Credits available in Table C406.2(2).~~
~~B~~	~~=~~	~~Installed space heating capacity in kBTU/h of space heating appliances that comply with any of the exceptions to Section C403.1.4.~~
~~C~~	~~=~~	~~Total installed space heating capacity in kBTU/h of all space heating appliances.~~

~~For mixed fuel service water heating systems, the number of service water heating energy efficiency credits available for measures with a prorating flag "SWH" are calculated using the following equation:~~

$$~~C_{WH} = CHP_{WH} \times B/C + CFF_{WH} \times (1 - B/C)~~$$

~~Where:~~

~~C_{WH}~~	~~=~~	~~Blended credits for mixed fuel systems.~~
~~CHP_{WH}~~	~~=~~	~~Credits available in Table C406.2(1).~~
~~CFF_{WH}~~	~~=~~	~~Credits available in Table C406.2(2).~~
~~B~~	~~=~~	~~Installed service water heating capacity in kBTU/h of service water~~

~~heating appliances that comply with any of the exceptions to Section C404.2.1.~~

~~C~~ = ~~Total installed service water heating capacity in kBTU/h of all service water heating appliances.~~

~~**Table C406.2(1)**~~

~~**Efficiency Measure Credits**~~

~~**Table C406.2(2)**~~

~~**Efficiency Measure Credits for use with**~~

~~**Fossil Fuel Compliance Path**~~

Table C406.2(1)

Lighting Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
L01	5% reduced lighting power	C406.2.3.1	3/3	6/6	1/1	8/7	0/0	8/6	10/8	12/5	6/5
L02	10% reduced lighting power		6/6	11/11	2/2	17/13	1/1	16/11	21/16	22/9	11/10
L03	15% reduced lighting power		/	/	/	/	/	/	/	/	/
L04	20% reduced lighting power		13/12	22/22	3/4	33/26	2/1	32/22	41/32	47/17	22/20
L05	25% reduced lighting power		/	/	/	/	/	/	/	/	/
L06	30% reduced lighting power		19/18	33/33	5/6	50/39	3/2	47/33	61/46	70/26	33/30

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
L07	Group R lamp efficacy	C406.2.3.2	2/2	N/A	1/1	N/A	N/A	N/A	N/A	N/A	N/A
L08	Group R-2 lighting controls	C406.2.4.1	N/A	N/A	1/1	N/A	N/A	N/A	N/A	N/A	N/A
L09	Enhanced lighting controls	C406.2.4.2	2/2	4/4	1/1	6/5	0/0	6/5	8/6	9/4	4/4
Lighting adjustment factor (LTG_{adj}) for use with Table C406.2(4)		C406.2.2.2 & 3	0.0073 / 0.0047	0.0014 / 0.0011	0.0050 / 0.0049	0.0049 / 0.0033	0.0100 / 0.0090	0.0040 / 0.0031	0.0035 / 0.0036	0.0023 / 0.0019	0.0043 / 0.0031

Table C406.2(2)

Envelope Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
E01	Total UA Improved 5%	C406.2.12	2/4	2/4	6/11	2/20	3/3	20/26	3/10	24/26	9/16
E02	Total UA Improved 10%		3/7	4/7	12/22	4/38	6/7	39/52	6/19	48/52	17/32
E03	Total UA Improved 15%		/	/	/	/	/	/	/	/	/
E04	Total UA Improved 20%		6/14	8/14	21/42	4/71	11/13	76/102	9/34	89/104	31/61
E05	Total UA Improved 25%		/	/	/	/	/	/	/	/	/
E06	Total UA Improved 30%		8/21	10/20	28/62	1/97	16/20	107/151	9/45	134/157	43/89
E07	Total UA Improved 35%		/	/	/	/	/	/	/	/	/

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
E08	Total UA Improved 40%		10/26	13/26	30/81	-5/ 112	22/27	133/195	5/50	176/212	52/115
UA adjustment factor (UA_{adj}) for use with Table C406.2(4) items E01 through E08		C406.2.2.2 & 3	0/ 0.0149	0.0100 / 0.0070	0.0216 / 0.0079	0.0105 / 0.0105	0.0062 / 0.0037	0.0052/ 0.0030	0.0036/ 0.0156	0.0027/ 0.0014	0.0142 / 0.0082
E09	Air Leakage Not Exceed 90% Max		0/0	0/0	1/2	0/1	0/0	1/2	0/0	3/3	1/1
E10	Air Leakage Not Exceed 80% Max		0/1	0/1	2/3	0/2	0/0	2/3	0/1	6/6	2/3
E11	Air Leakage Not Exceed 70% Max		-	-	-	-	-	-	-	-	-
E12	Air Leakage Not Exceed 60% Max	C406.2.13	1/2	1/1	4/7	0/5	0/0	4/5	0/2	13/12	4/6
E13	Air Leakage Not Exceed 50% Max		-	-	-	-	-	-	-	-	-
E14	Air Leakage Not Exceed 40% Max		1/2	1/2	5/10	1/7	0/1	6/8	1/3	17/18	6/9
E15	Air Leakage Not Exceed		-	-	-	-	-	-	-	-	-

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
	30% Max										
E16	Air Leakage Not Exceed 20% Max		1/3	1/2	7/14	1/9	1/1	8/11	1/4	23/24	8/12
Air leakage adjustment factor ($LEAK_{adj}$) for use with Table C406.2(4) items E09 through E16		C406.2.2.2 & 3	0.0477 / 0.0162	0.0075 / 0.0066	0.0235 / 0.0083	0.0022 / 0.0107	0.0062 / 0.0038	0.0060/ 0.0032	0.0039/ 0.00168	0.0028/ 0.0015	0.0140 / 0.0087
E17	Thermal imaging	C406.2.20	/	/	/	/	/	/	/	/	/

Table C406.2(3)

Ventilation Systems and HVAC Controls Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
C01	Group R-2 HVAC control	C406.2.1	N/A	N/A	19/27	N/A	N/A	N/A	N/A	N/A	N/A
C02	Improve fan efficiency 5%	C406.2.2.1	3/3	5/6	3/3	3/3	1/1	3/2	5/4	1/0	3/2
	Improve fan efficiency 10%		6/6	10/11	6/5	7/6	2/1	6/5	9/7	1/0	6/5
	Improve Fan Efficiency 20%		21/11	21/22	12/10	14/12	3/2	13/9	18/14	3/1	12/9
C03	High performance DOAS	C406.2.2.6	0/0	1/1	9/19	4/5	0/0	1/18	7/22	3/7	6/12
C04	Fault detection & diagnostics (FDD)	C406.2.2.7	/	/	/	/	/	/	/	/	/
C05	Peak heating and cooling loads	C406.2.22	/	/	/	/	/	/	/	/	/
CO6	Add DOAS if not otherwise required	TBD	-7 / 31	33/33	0/0	0/0	0/0	0/0	0/0	20/22	5/11
CO7	Add Air Economizer if	TBD	32/21	51/34	N/A	41/21	N/A	3/2	48/36	0/0	15/15

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
	not otherwise required										

Table C406.2(4)

Space Heating Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
H01	Improved HVAC TSPR[a] 5%	C406.2.2.1	0/0	0/0	50/85	-17 / 0	0/0	155/217	67/88	0/0	32/53
	Improved HVAC TSPR[a] 10%		0/0	0/0	55/92	-8 / 11	0/0	164/229	75/99	0/0	37/59
	Improved HVAC TSPR[a] 20%		0/0	0/0	65/106	10/34	0/0	182/253	90/119	0/0	47/70
	Improved HVAC TSPR[a] 30%		0/0	0/0	75/121	29/56	0/0	200/276	106/139	0/0	56/81
H02	No space heating	C406.2.2.3	3/6/	14/16/	6/12/	2/6/	15/25/	18/30/	5/12/	34/64/	11/28/
H03	C403.1.4 Primary space heating exceptions	C406.2.2.3	Same as min. efficiency air source heat pump (5a)								
H04	Fossil fuel boiler or furnace Min Eff.	C406.2.2.3	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
H05	Fossil fuel boiler or furnace Imp. 5%		2/3	8/8	3/6	1/3	8/13	10/16	3/7	18/33	6/15
H06	Fossil fuel boiler or furnace Imp. 10%		3/6	14/16	6/12	2/6	15/25	18/30	5/12	34/64	11/28
H07	Fossil fuel boiler or		4/9	21/23	8/18	3/9	22/36	26/43	8/18	48/91	16/41

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
	furnace Imp. 15%										
H08	Fossil fuel boiler or furnace Imp. 20%		5/12	26/29	10/23	4/12	28/46	33/55	10/23	62/117	20/52
H09	Fossil fuel boiler or furnace Imp. 25%		/	/	/	/	/	/	/	/	/
H10	Air source heat pump Min Eff.	C406.2.2.3	19/31	123/126	40/73	14/35	122/170	145/209	36/76	208/297	74/150
H11	Air source heat pump Imp. 10%		/	/	/	/	/	/	/	/	/
H12	Air source heat pump Imp. 20%		21/36	130/135	40/73	15/37	126/176	151/219	37/81	214/305	76/156
H13	Air source heat pump Imp. 30%		/	/	/	/	/	/	/	/	/
H14	Air source heat pump Imp. 40%		23/40	135/142	42/79	15/40	130/184	156/229	39/86	219/312	78/162
H15	Air source heat pump Imp. 50%		/	/	/	/	/	/	/	/	/
H16	Air source heat pump Imp. 60%		24/42	138/146	44/83	16/42	133/190	160/236	40/89	223/317	80/166
H17	Air source heat pump Imp. 70%		/	/	/	/	/	/	/	/	/
H18	Air source heat pump Imp. 80%		/	/	/	/	/	/	/	/	/
H19	Air source heat pump Imp. 90%		/	/	/	/	/	/	/	/	/
H20	Ground source heat pump Min Eff.	C406.2.2.3	24/55	150/154	48/105	19/57	140/226	157/254	41/103	226/337	84/183
H21	Ground source heat pump Imp. 10%		/	/	/	/	/	/	/	/	/

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
H22	Ground source heat pump Imp. 20%		26/57	151/157	50/110	20/59	144/231	162/263	42/106	231/342	86/188
H23	Ground source heat pump Imp. 30%		/	/	/	/	/	/	/	/	/
H24	Ground source heat pump Imp. 40%		27/59	152/159	52/113	20/61	146/235	166/269	43/109	235/347	88/191
H25	Ground source heat pump Imp. 50%		/	/	/	/	/	/	/	/	/
H26	Ground source heat pump Imp. 60%		27/61	153/161	53/116	21/62	148/238	169/274	44/111	238/350	89/194
H27	Ground source heat pump Imp. 70%		/	/	/	/	/	/	/	/	/
H28	Ground source heat pump Imp. 80%		/	/	/	/	/	/	/	/	/
H29	Ground source heat pump Imp. 90%		/	/	/	/	/	/	/	/	/
H30	Gas heat pump Min Eff.	C406.2.2.3	14/28	73/73	19/36	9/23	100/155	91/137	24/53	100/107	38/73
H31	Gas heat pump Imp. 10%		/	/	/	/	/	/	/	/	/
H32	Gas heat pump Imp. 20%		/	/	/	/	/	/	/	/	/
H33	Gas heat pump Imp. 30%		/	/	/	/	/	/	/	/	/
H34	Gas heat pump Imp. 40%		/	/	/	/	/	/	/	/	/

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
H35	Gas heat pump Imp. 50%		/	/	/	/	/	/	/	/	/
H36	Gas heat pump Imp. 60%		/	/	/	/	/	/	/	/	/
H37	Gas heat pump Imp. 70%		/	/	/	/	/	/	/	/	/
H38	Gas heat pump Imp. 80%		/	/	/	/	/	/	/	/	/
H39	Gas heat pump Imp. 90%		/	/	/	/	/	/	/	/	/
H40	Water source heat pump heat Min Eff. (w/ gas boiler)	C406.2.2.3	12/17	148/134	1/1	12/21	29/46	37/59	28/52	83/177	28/84
H41	Water source heat pump heat Imp. 10%		/	/	/	/	/	/	/	/	/
H42	Water source heat pump heat Imp. 20% (w/ gas boiler)		14/21	150/137	5/10	13/25	36/59	46/74	30/57	93/189	33/922
H43	Water source heat pump heat Imp. 30%		/	/	/	/	/	/	/	/	/
H44	Water source heat pump heat Imp. 40% (w/ gas boiler)		16/25	151/140	7/16	14/27	41/68	52/86	31/62	100/198	36/99
H45	Water source heat pump		/	/	/	/	/	/	/	/	/

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
	heat Imp. 50%										
H46	Water source heat pump heat Imp. 60% (w/ gas boiler)		17 / 27/	151 / 142/	9 / 20/	14 / 29/	45 / 75/	57 / 94/	32 / 65/	105 / 205/	38 / 103/
H47	Water source heat pump heat Imp. 70%		/	/	/	/	/	/	/	/	/
H48	Water source heat pump heat Imp. 80%		/	/	/	/	/	/	/	/	/
H49	Water source heat pump heat Imp. 90%		/	/	/	/	/	/	/	/	/
	Water source heat pump min efficiency (w/ AWHP)		21 / 43	150 / 150	40 / 81	18 / 48	120 / 185	137 / 213	39 / 90	201 / 300	74 / 160
	Water source heat pump Imp 20% (w/ AWHP)		23 / 47	152 / 153	44 / 90	19 / 52	127 / 198	146 / 228	41 / 95	211 / 312	79 / 168
	Water source heat pump Imp 40% (w/ AWHP)		25 / 51	153 / 156	46 / 96	20 / 54	132 / 207	152 / 240	42 / 100	218 / 321	81 / 175
	Water source heat pump Imp 60% (w/ AWHP)		26 / 53	153 / 158	48 / 100	20 / 56	136 / 214	157 / 248	43 / 103	223 / 328	84 / 179

Table C406.2(5)

Space Cooling Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
H50	No space cooling	C406.2.2.2	9 / 10	1 / 1	10 / 12	28 / 28	3 / 4	13 / 16	21 / 25	0 / 0	12 / 13
H51	Direct expansion Min Eff.	C406.2.2.2	0 / 0	4 / 2	0 / 0	6 / 4	0 / 0	0 / 0	0 / 0	0 / 0	1 / 0
H52	Direct expansion Imp. 250%		9 / 10	15 / 15	10 / 12	28 / 28	3 / 4	13 / 16	21 / 25	0 / 0	12 / 13
H53	Direct expansion Imp. 540%		30 / 33	23 / 22	61 / 72	61 / 59	20 / 21	35 / 39	47 / 49	0 / 0	44 / 34
H54	Direct expansion Imp. 7560%		35 / 38	28 / 28	64 / 76	69 / 69	21 / 23	41 / 47	55 / 60	0 / 0	48 / 39
H55	Direct expansion Imp. 80%		/	/	/	/	/	/	/	/	/
H56	Direct expansion Imp. 100%		/	/	/	/	/	/	/	/	/
H57	Direct expansion Imp. 120%		/	/	/	/	/	/	/	/	/
H58	Direct expansion Imp. 140%		/	/	/	/	/	/	/	/	/
H59	Direct expansion Imp. 160%		/	/	/	/	/	/	/	/	/
H60	Direct expansion Imp. 180%		/	/	/	/	/	/	/	/	/
H61	Air cooled cChiller d water Min Eff.	C406.2.2.2	9 / 9	-5 / -5	-16 / -14	0 / 0	5 / 4	4 / 9	-2 / 6	0 / 0	-7 / 1
H62	Air cooled Cchillerd water Imp. 20%		13 / 13	1 / 1	-10 / -7	9 / 10	6 / 6	10 / 17	9 / 19	0 / 0	-1 / 8
H63	Air cooled Cchiller d water Imp. 40%		14 / 14	6 / 7	-4 / 0	18 / 19	6 / 7	11 / 18	13 / 23	0 / 0	4 / 11
H64	Air cooled Cchiller d		15 / 15	10 / 11	0 / 5	23 / 25	7 / 8	13 / 19	17 / 27	0 / 0	7 / 13

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
	~~water~~ Imp. 60%										
H65	~~Chilled water Imp. 80%~~Water cooled chiller Min Eff.		12 / 17/	39 / 37/	-11 / -3/	18 / 29/	6 / 9/	8 / 19/	-10 / 4/	0 / 0/	-1 / 9/
H66	~~Chilled water Imp. 100%~~Water Cooled chiller Imp 20%		14 / 19/	44 / 42/	-5 / 4/	25 / 36/	6 / 10/	11 / 22/	-2 / 12/	0 / 0/	4 / 13/
H67	Water Cooled chiller Imp 40%~~Chilled water Imp. 120%~~		15 / 21/	47 / 45/	-1 / 9/	30 / 41/	7 / 11/	14 / 26/	5 / 19/	0 / 0/	8 / 16/
H68	Water Cooled chiller Imp 60%~~Chilled water Imp. 140%~~		17 / 22/	50 / 48/	3 / 13/	35 / 46/	8 / 11/	16 / 28/	10 / 24/	0 / 0/	11 / 19/
H69	Chilled water Imp. 160%		/	/	/	/	/	/	/	/	/
H70	Chilled water Imp. 180%		/	/	/	/	/	/	/	/	/
H71	Water source heat pump cool Min Eff.	C406.2.2.2	-46 / -33/	-15 / 4/	4 / 1/	-13 / -10/	-1 / 1/	-4 / 3/	-17 / -10/	-3 / -1/	-5 / -5/
H72	Water source heat pump cool Imp. 20%		-31 / -20/	4 / 21/	13 / 11/	5 / 12/	2 / 4/	7 / 15/	2 / 11/	0 / 1/	6 / 7/
H73	Water source heat pump cool Imp. 40%		-21 / -10/	18 / 34/	20 / 18/	18 / 27/	4 / 6/	15 / 24/	15 / 26/	2 / 3/	14 / 16/
H74	Water source heat pump cool Imp. 60%		-13 / -3/	28 / 43/	25 / 23/	28 / 39/	5 / 8/	21 / 30/	26 / 38/	4 / 4/	20 / 23/
H75	Water source heat pump cool Imp. 80%		/	/	/	/	/	/	/	/	/
H76	Water source heat pump cool Imp. 100%		/	/	/	/	/	/	/	/	/
H77	Water source heat pump cool Imp. 120%		/	/	/	/	/	/	/	/	/

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
H78	Water source heat pump cool Imp. 140%		/	/	/	/	/	/	/	/	/
H79	Water source heat pump cool Imp. 160%		/	/	/	/	/	/	/	/	/
H80	Water source heat pump cool Imp. 180%		/	/	/	/	/	/	/	/	/

Table C406.2(6)

Service Water Usage Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
~~W01~~	~~Shower drain heat recovery~~	~~C406.2.6.1~~	~~/~~	~~/~~	~~/~~	~~/~~	~~/~~	~~/~~	~~/~~	~~/~~	~~/~~
W012	Service water heat recovery	C406.2.6.2	36 / 34	0 / 0	110 / 100	17 / 16	0 / 0	24 / 19[a]	35 / 32	0 / 0	56 / 26
Service water recovery adjustment factor ($RCVRY_{adj}$) for use with Tables C406.2(7) items W01 and W02		C406.2.6.3	0.0033 / 0.0037	0.0159 / 0.0190	0.0024 / 0.0026	0.0135 / 0.0148	0.0052 / 0.0059	0.0152 / 0.0194	0.0075 / 0.0082	0.0187 / 0.0391	0.0087 / 0.0183
W02	Shower drain heat recovery	C406.2.6.1	12 / 11	NA / NA	37 / 33	NA / NA	NA / NA	NA / NA	8 / 7	0 / NA	17 / 7
W03	Heat trace system	C406.2.7.1	2 / 2	0 / 0	3 / 3	1 / 1	0 / 0	0 / 0~~NA~~	5 / 5	7 / 3	3 / 3
W04	Point of use water heater (add footnote b)	C406.2.7.2	0 / 0	0 / 0	0 / 0	32 / 28	0 / 0	58 / 47	88 / 80	46 / 23	24 / 34
W05	Service hot water distribution right sizing	C406.2.8	0 / 0	NA / NA	12 / 10	NA / NA	NA / NA	NA / NA	0 / 0	NA / NA	5 / 1
W06	High performance service hot water temperature maintenanc	C406.2.9	19 / 18	14 / 14	56 / 48	7 / 6	6 / 5	20 / 16	36 / 31	14 / 7	34 / 20

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
	e system (add footnote b)										
W07	High efficiency service hot water circulation system	C406.2.10	1 / 1	0 / 0	2 / 2	0 / 0	0 / 0	0 / 0	3 / 3	4 / 2	2 / 2
Service water use adjustment factor (USE_{adj}) for use with Tables C406.2(7) items W03 through W07		C406.2.6.3	0.0036 / 0.0037 /	0.0187 / 0.0190 /	0.0025 / 0.0027 /	0.0139 / 0.0152 /	0.0052 / 0.0059 /	0.0174 / 0.0222 /	0.0089 / 0.0097 /	0.0207 / 0.0434 /	0.0096 / 0.0204 /
	Group R low flow showerheads, 1.50 gpm		8 / 7	NA / NA	14 / 13	NA / NA	NA / NA	NA / NA	NA / NA	NA / NA	6 / 2
W08	Group R low flow showerheads, 1.25 gpm	C406.2.11	18 / 17	NA / NA	32 / 29	NA / NA	NA / NA	NA / NA	NA / NA	NA / NA	15 / 5

a Service water heat recovery and heat pump water heating are available in Group M only for grocery stores larger than 10,000 ft^2. Large mixed retail with full grocery and butcher sections shall achieve half the credits. This credit is not available where refrigeration recovery to heat service hot water is used to meet the requirements of Section C403.9.2.3.

Footnote b: these measures do not contribute to capacity weighting in equation 4-19.

Table C406.2(7)

Service Water Heating Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
W09	No service water heating	C406.2.6.3	32 / 31	7 / 7	42 / 39	7 / 6	18 / 16	10 / 8	14 / 13	8 / 4	24/14
W10	C404.2.1 Primary service water heating exceptions	C406.2.6.3	Same as min. efficiency heat pump water heating (17a)								
W11	Heat pump water heating Min Eff.	C406.2.6.3	186 / 179	36 / 35	267 / 243	48 / 44	129 / 113	38 / 30	75 / 69	32 / 15	148 / 75
W12	Heat pump water heating Imp. 10%		/	/	/	/	/	/	/	/	/

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
W13	Heat pump water heating Imp. 20%		159 / 81	159 / 81	159 / 81	159 / 81	159 / 81	159 / 81	159 / 81	159 / 81	159 / 81
W14	Heat pump water heating Imp. 30%		/	/	/	/	/	/	/	/	/
W15	Heat pump water heating Imp. 40%		208 / 202	40 / 39	303 / 277	53 / 48	147 / 129	40 / 32	83 / 77	33 / 16	167 / 84
W16	Heat pump water heating Imp. 50%		/	/	/	/	/	/	/	/	/
W17	Heat pump water heating Imp. 60%		215 / 209	41 / 40	314 / 288	54 / 50	152 / 134	41 / 32	86 / 80	34 / 16	173 / 87
W18	Heat pump water heating Imp. 70%		/	/	/	/	/	/	/	/	/
W19	Heat pump water heating Imp. 80%		/	/	/	/	/	/	/	/	/
W20	Heat pump water heating Imp. 90%		/	/	/	/	/	/	/	/	/
W21	Gas fired > 105 kBtu/h (Et rated) min eff.~~Gas water heater Min Eff.~~	C406.2.6.4	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
W22	Gas fired > 105 kBtu/h (Et rated) efficiency imp. 10%~~Gas water heater Imp. 5%~~		32 / 31	7 / 7	42 / 39	7 / 6	18 / 16	10 / 8	14 / 13	8 / 4	24/14
W23	Gas fired > 105 kBtu/h (Et rated) efficiency imp. 20%~~Gas water heater Imp. 10%~~		58 / 57	13 / 13	77 / 71	12 / 12	34 / 30	18 / 15	27 / 24	15 / 7	45/25
W24	Gas fired <= 105 kBtu/h (UEF rated) min eff.~~Gas water heater Imp. 15%~~		0/0	0/0	-72/-43	0/0	0/0	0/0	0/0	0/0	0/0
W25	Gas fired <= 105 kBtu/h		0 / 0	0 / 0	14 / 22	22 / 25	0 / 0	8 / 7	0 / 0	10 / 5	12/7

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
	(UEF rated) efficiency imp. 20%~~Gas water heater Imp. 20%~~										
W26	Gas fired <= 105 kBtu/h (UEF rated) efficiency imp. 40%~~Gas water heater Imp. 25%~~		0 / 0~~/~~	0 / 0~~/~~	74 / 71~~/~~	37 / 41~~/~~	0 / 0~~/~~	16 / 14~~/~~	0 / 0~~/~~	17 / 8~~/~~	42/15~~/~~
??	Gas fired <= 105 kBtu/h (UEF rated) efficiency imp. 60%		0 / 0	0 / 0	116 / 107	46 / 52	0 / 0	23 / 19	0 / 0	23 / 11	63/22
W27	Gas heat pump Min Eff.	C406.2.2.3	66 / 64~~/~~	15 / 15~~/~~	180 / 167~~/~~	27 / 25~~/~~	79 / 69~~/~~	27 / 22~~/~~	41 / 39~~/~~	31 / 16~~/~~	97 / 46~~/~~
W28	Gas heat pump Imp. 10%		/	/	/	/	/	/	/	/	/
W29	Gas heat pump Imp. 20%		/	/	/	/	/	/	/	/	/
W30	Gas heat pump Imp. 30%		/	/	/	/	/	/	/	/	/
W31	Gas heat pump Imp. 40%		/	/	/	/	/	/	/	/	/
W32	Gas heat pump Imp. 50%		/	/	/	/	/	/	/	/	/
W33	Gas heat pump Imp. 60%		/	/	/	/	/	/	/	/	/
W34	Gas heat pump Imp. 70%		/	/	/	/	/	/	/	/	/
W35	Gas heat pump Imp. 80%		/	/	/	/	/	/	/	/	/
W36	Gas heat pump Imp. 90%		/	/	/	/	/	/	/	/	/

Table C406.2(8)

Renewable Energy Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
R01	Renewable energy	C406.2.5	5 / 6~~/~~	5 / 5~~/~~	10 / 10~~/~~	16 / 17~~/~~	1 / 1~~/~~	16 / 14~~/~~	15 / 16~~/~~	58 / 32~~/~~	20 / 18~~/~~

Table C406.2(9)

Other Efficiency Credit Measures

ID	Credit Measure	Section Reference	Occupancy Group (Climate Zone 4C / 5B)								
			R-1 R-4 I-1	I-2	R-2	B	A-2	M	E	S-1 S-2	All Other
Q01	Group R kitchen equipment	C406.2.15	/	/	5/4~~/~~	N/A	N/A	N/A	N/A	N/A	1/0~~N/A~~
Q02	Group R-2 induction cooktop	C406.2.21	N/A	N/A	1/1	N/A	N/A	N/A	N/A	N/A	N/A
Q03	Group R-2 laundry equipment	C406.2.16	N/A	N/A	3/2	N/A	N/A	N/A	N/A	N/A	~~N/A~~1/0
Q04	Heat pump clothes dryers	C406.2.17	30/28	/	21/17	N/A	N/A	N/A	N/A	N/A	~~N/A~~10/4
Q05	Efficient elevator equipment	C406.2.18	12 / 11~~/~~	7 / 6~~/~~	13 / 11~~/~~	27 / 25~~/~~	0 / 0~~/~~	0 / 0~~/~~	2 / 2~~/~~	0 / 0~~/~~	11 / 5~~/~~
Q06	Thermal energy networks	C406.2.19	/	/	/	/	/	/	/	/	/
	Enhanced Commercial Kitchen Equipment	C406.2.14	0 / 0	0 / 0	0 / 0	0 / 0	21 / 17	0 / 0	0 / 0	0 / 0	0 / 0

[Statutory Authority: RCW 19.27A.045 and chapter 19.27A RCW. WSR 24-16-145, § 51-11C-40620, filed 8/7/24, effective 9/7/24. Statutory Authority: RCW 19.27A.020, 19.27A.025, 19.27A.160, chapters 19.27A and 19.27 RCW. WSR 24-03-085, § 51-11C-40620, filed 1/16/24, effective 3/15/24; WSR 22-14-091, 23-12-101, and 23-20-021, § 51-11C-40620, filed 7/1/22, 6/7/23, and 9/25/23, effective 3/15/24.]