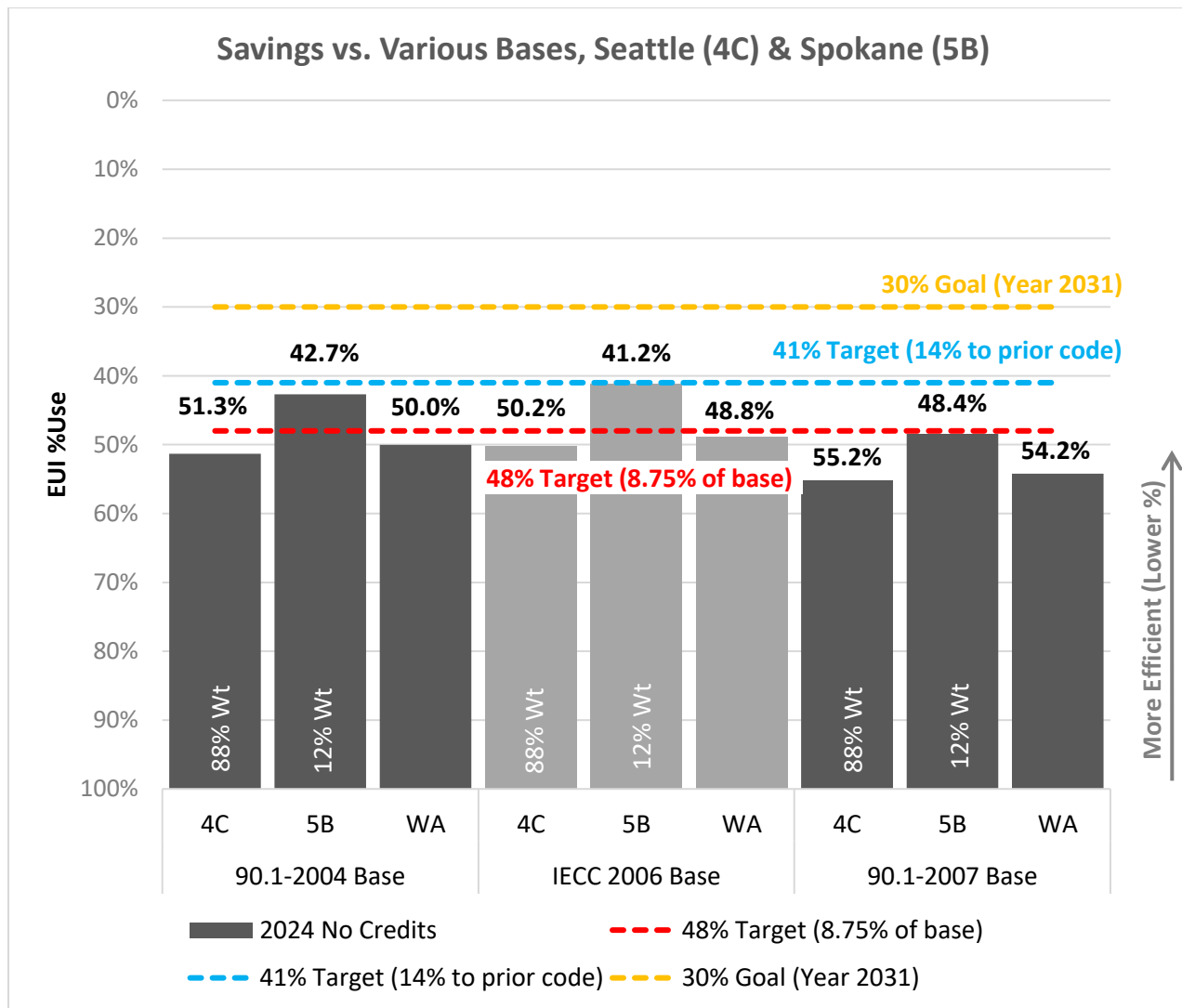
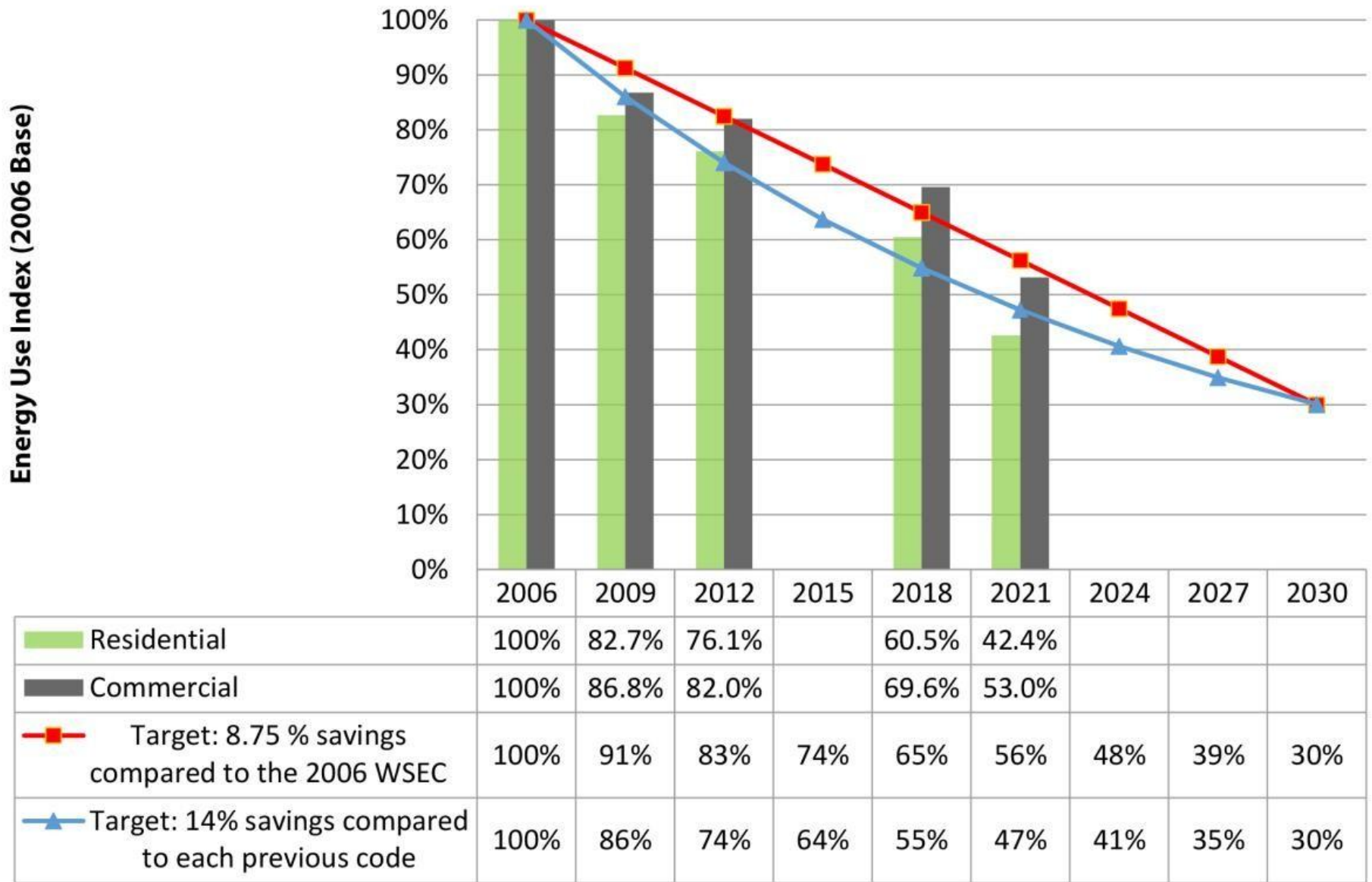
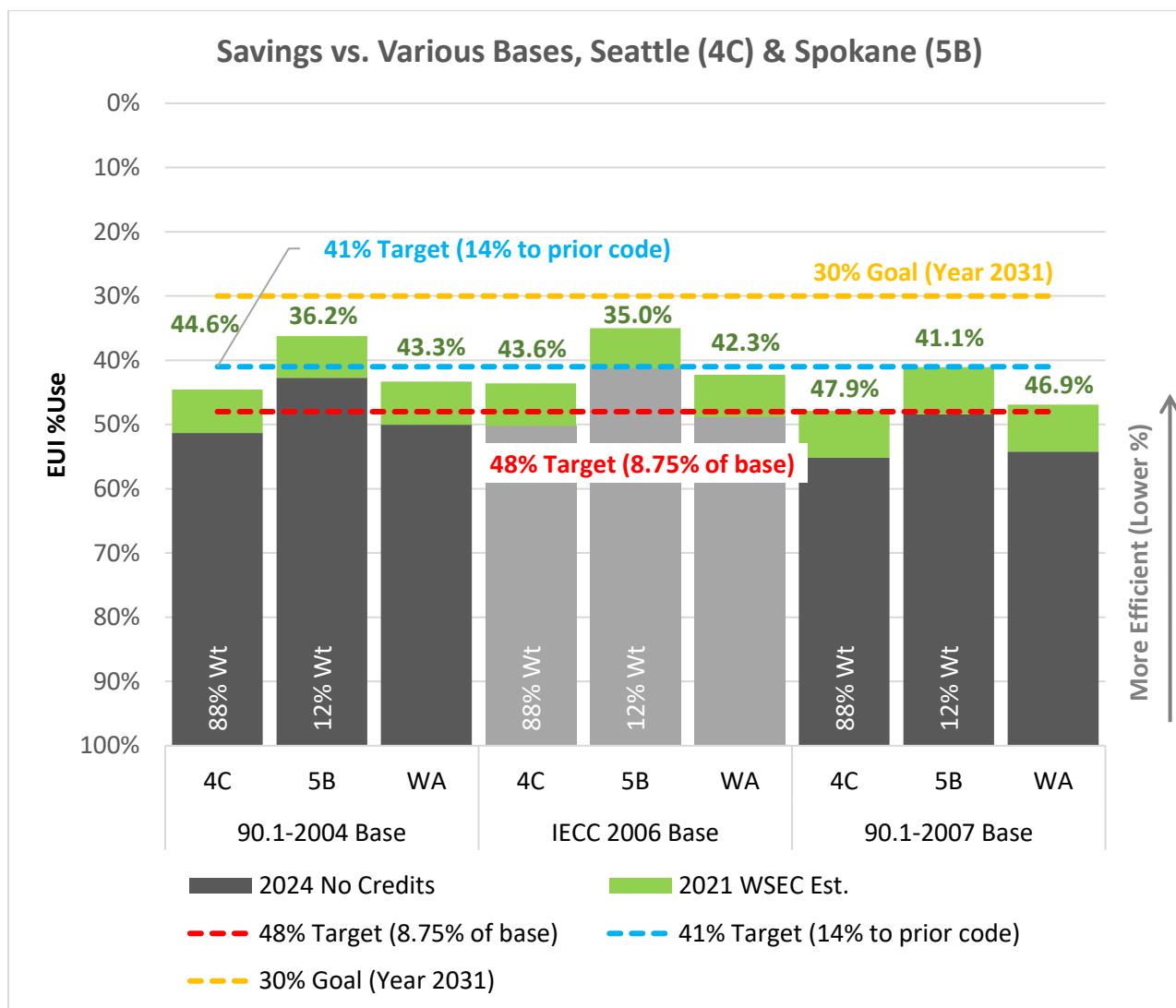
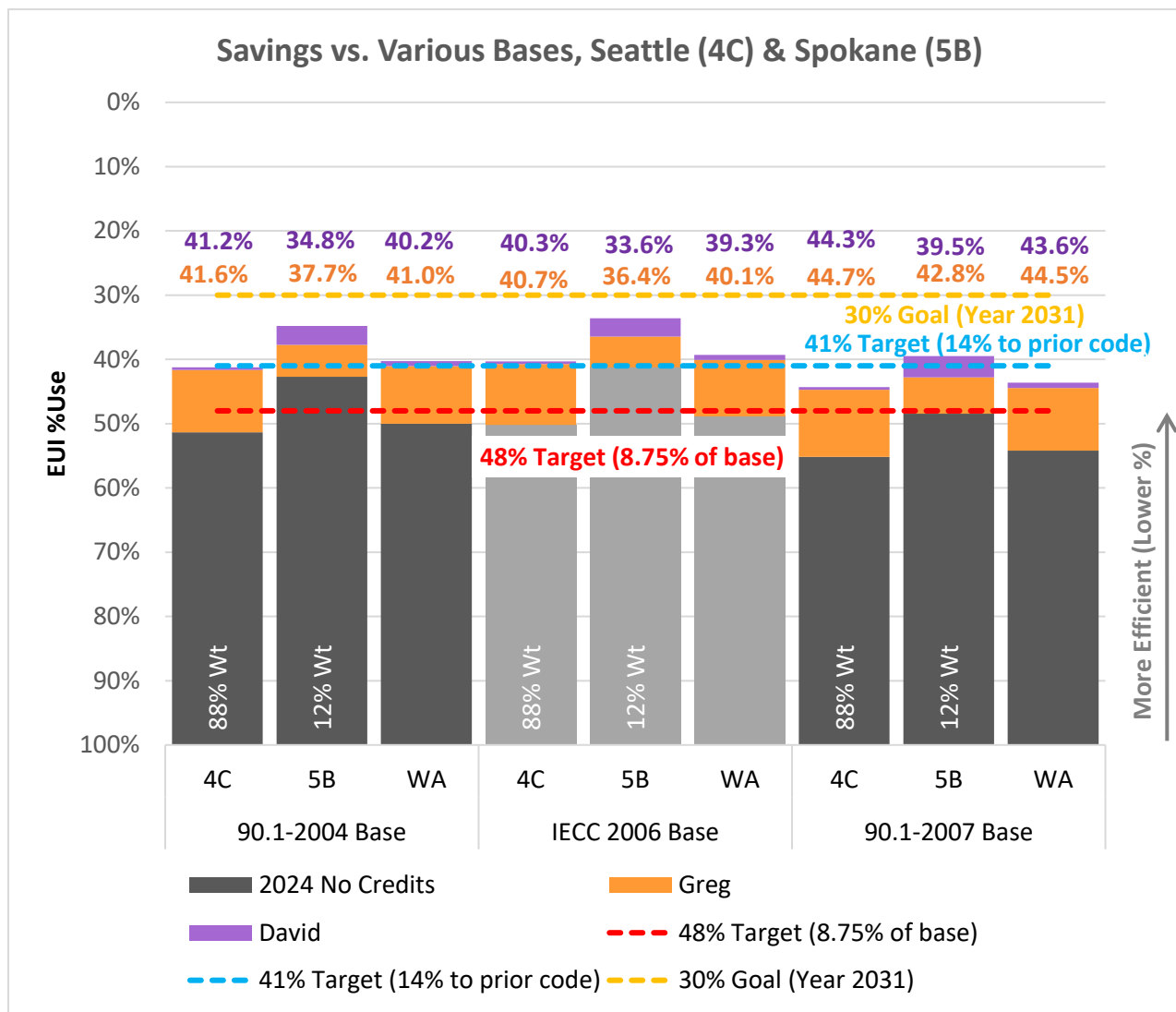


Comparison of Various Baselines

Incremental Improvement Compared to Targets

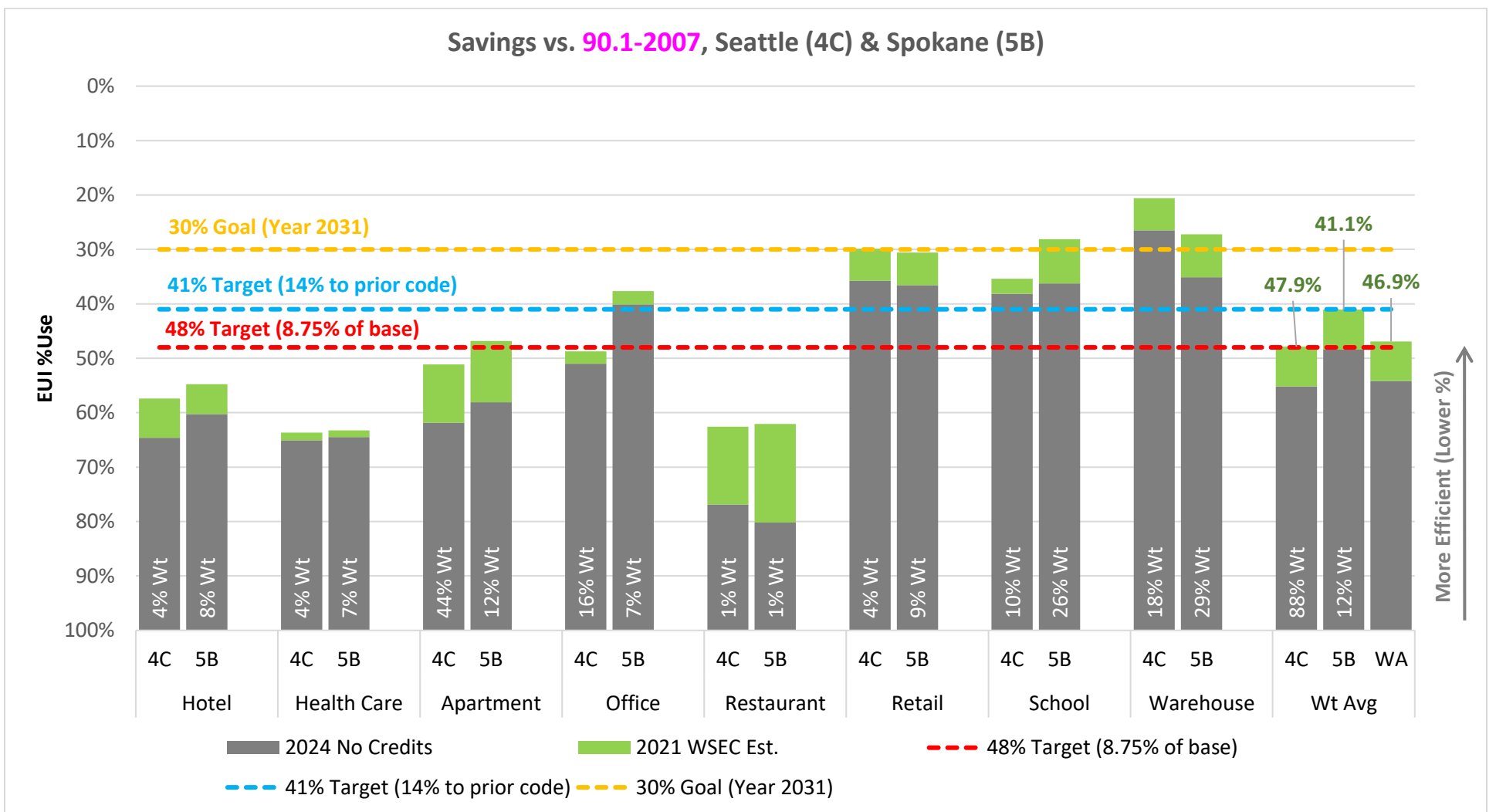
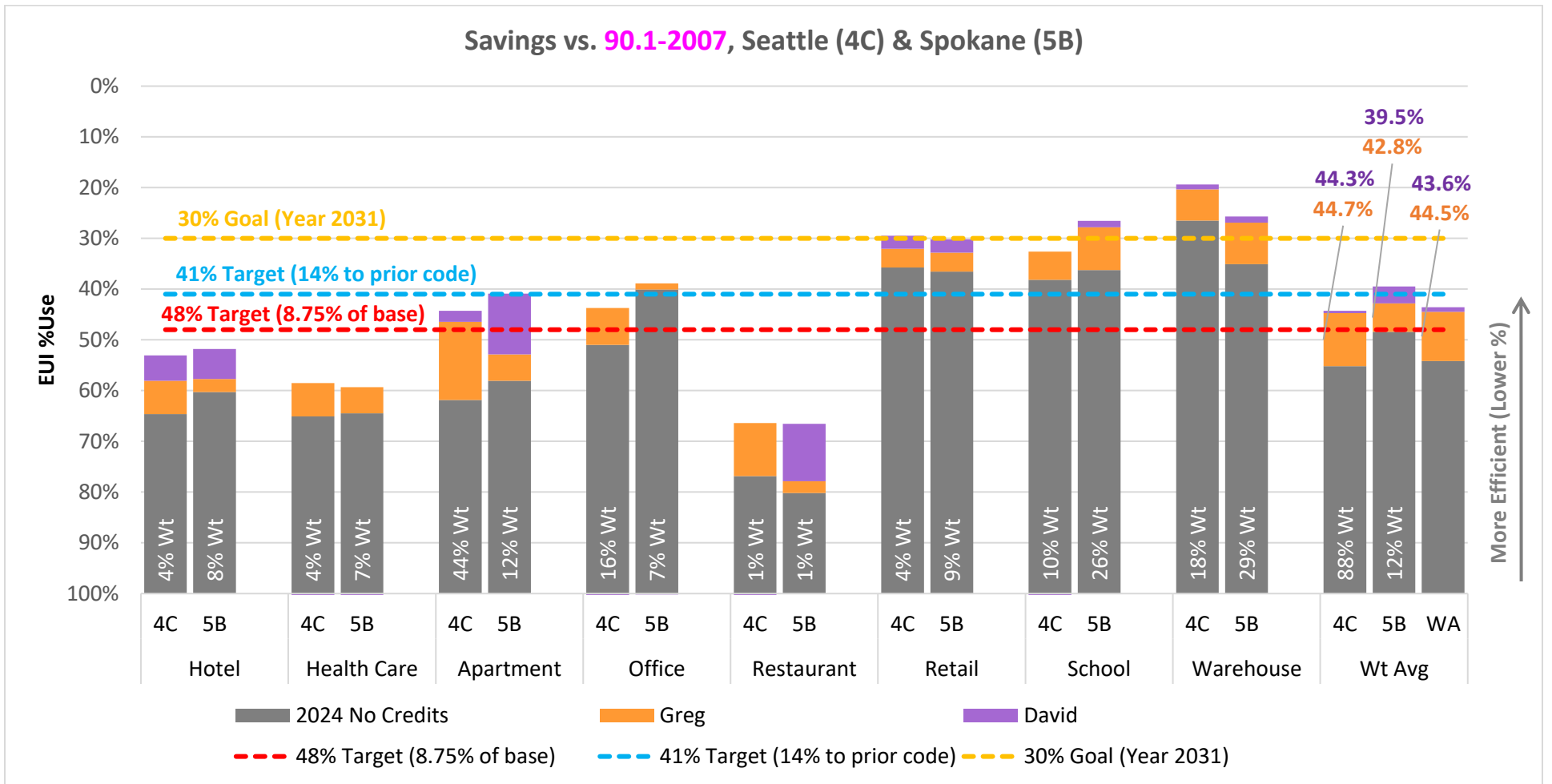


Summary Proposed Credit Requirements (Various Baselines)



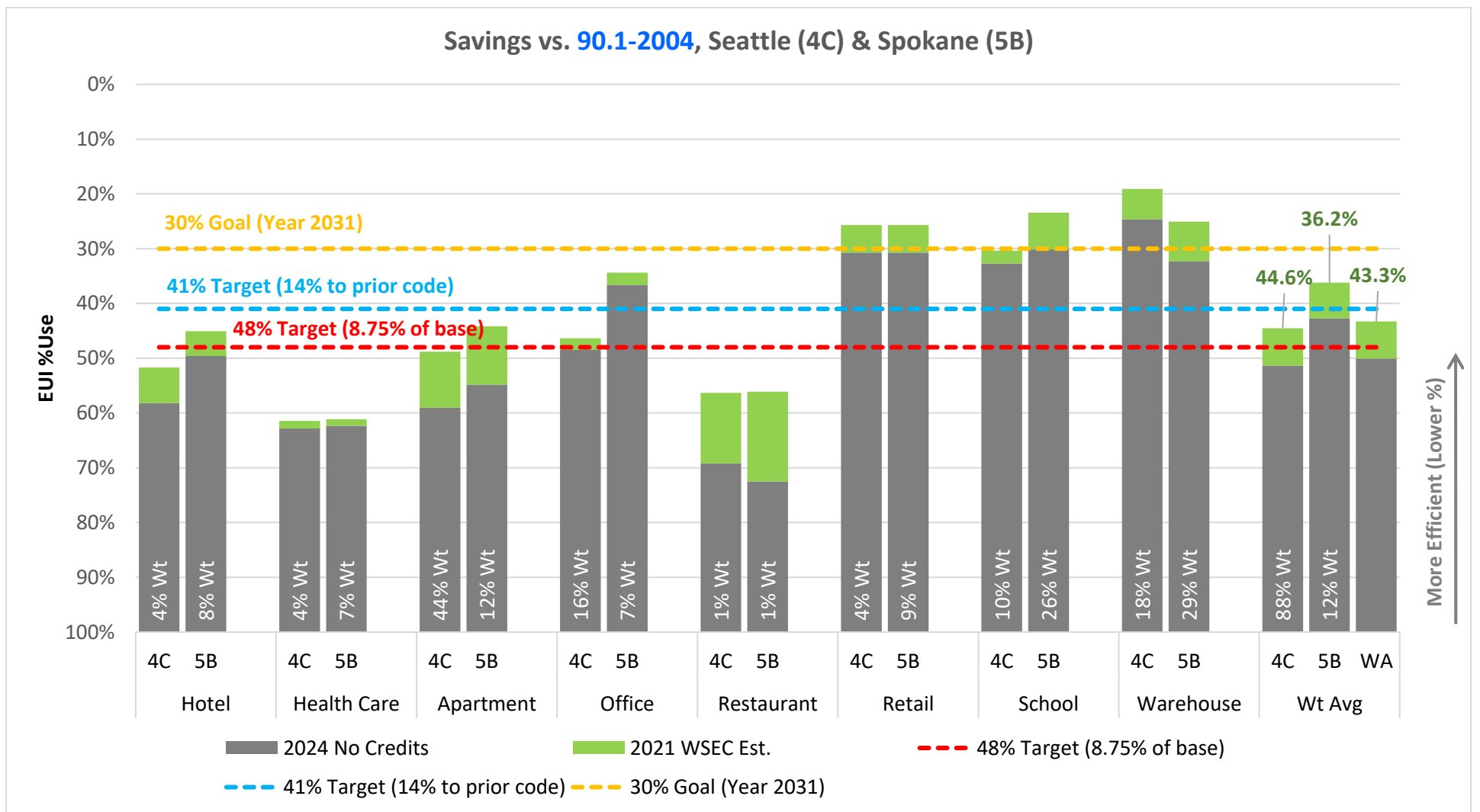
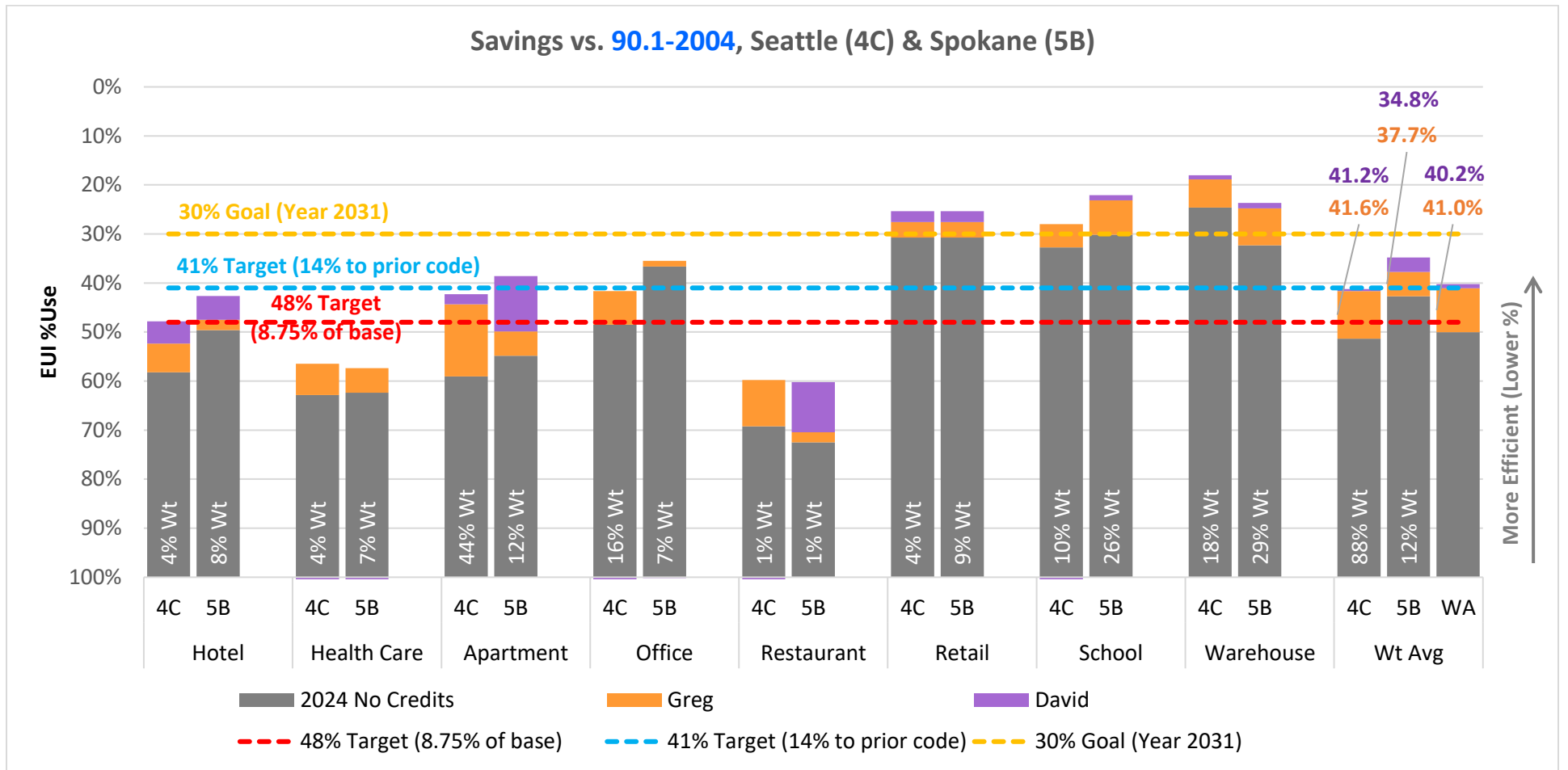
Comparison of Proposed Credit Requirements – 90.1-2007

	Credit Measure Values								
	4C (Seattle) / 5B (Spokane)								
	Hotel	Health Care	Apartment	Office	Restaurant	Retail	School	Warehouse	Other
	R-1, R-4, I-1	I-2	R-2	B	A-2	M	E	S-1, S-2	
David Reddy Proposed	179 / 185	50 / 49	284 / 296	38 / 26	122 / 170	175 / 233	123 / 154	268 / 326	231 / 232
Greg Johnson Proposed	101 / 56	101 / 80	249 / 90	142 / 31	136 / 29	103 / 55	145 / 67	233 / 89	200 / 72
Min of Greg or David	101 / 56	50 / 49	249 / 90	38 / 26	122 / 29	103 / 55	123 / 67	233 / 89	200 / 72



Comparison of Proposed Credit Requirements – 90.1-2004

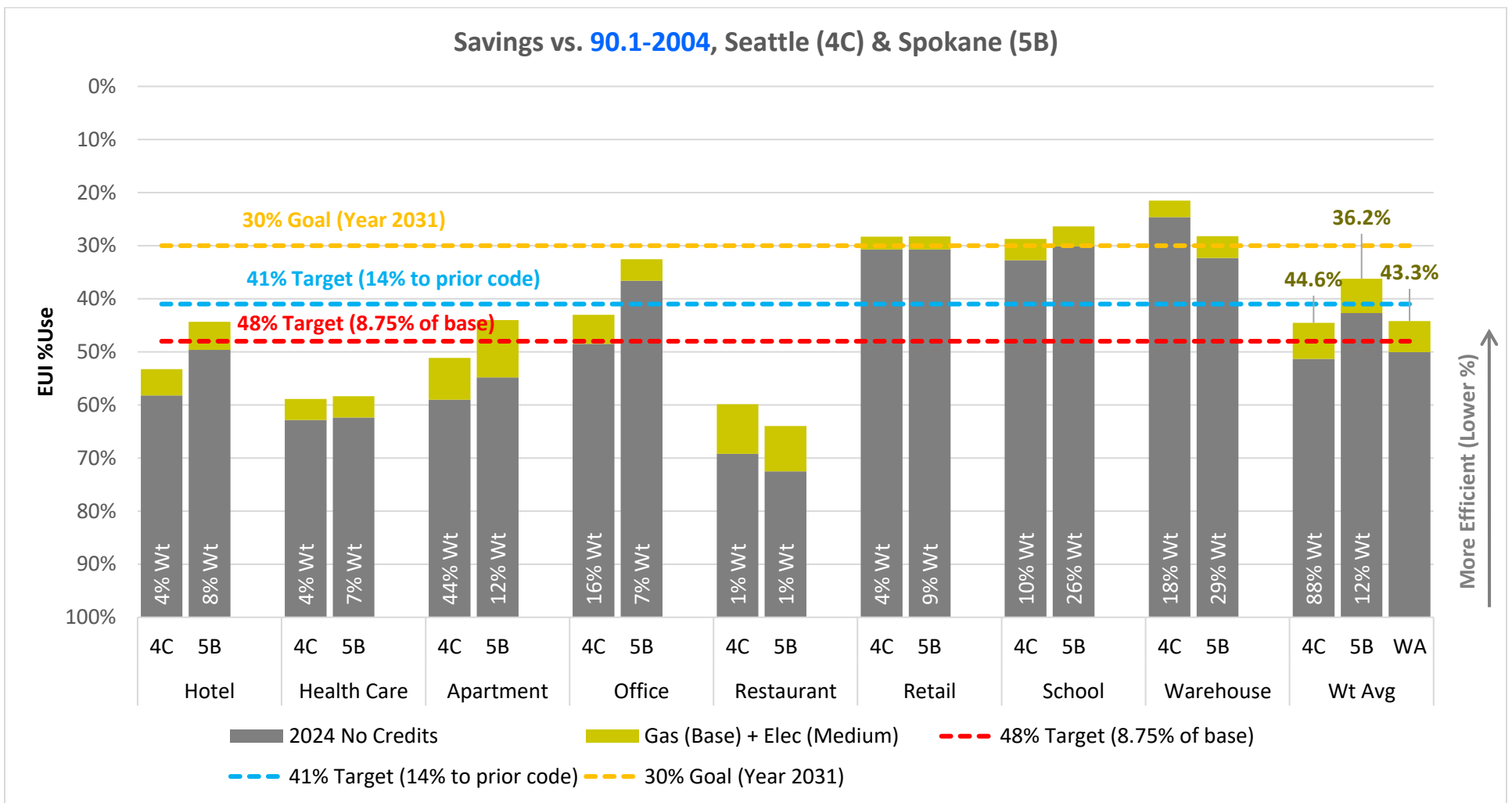
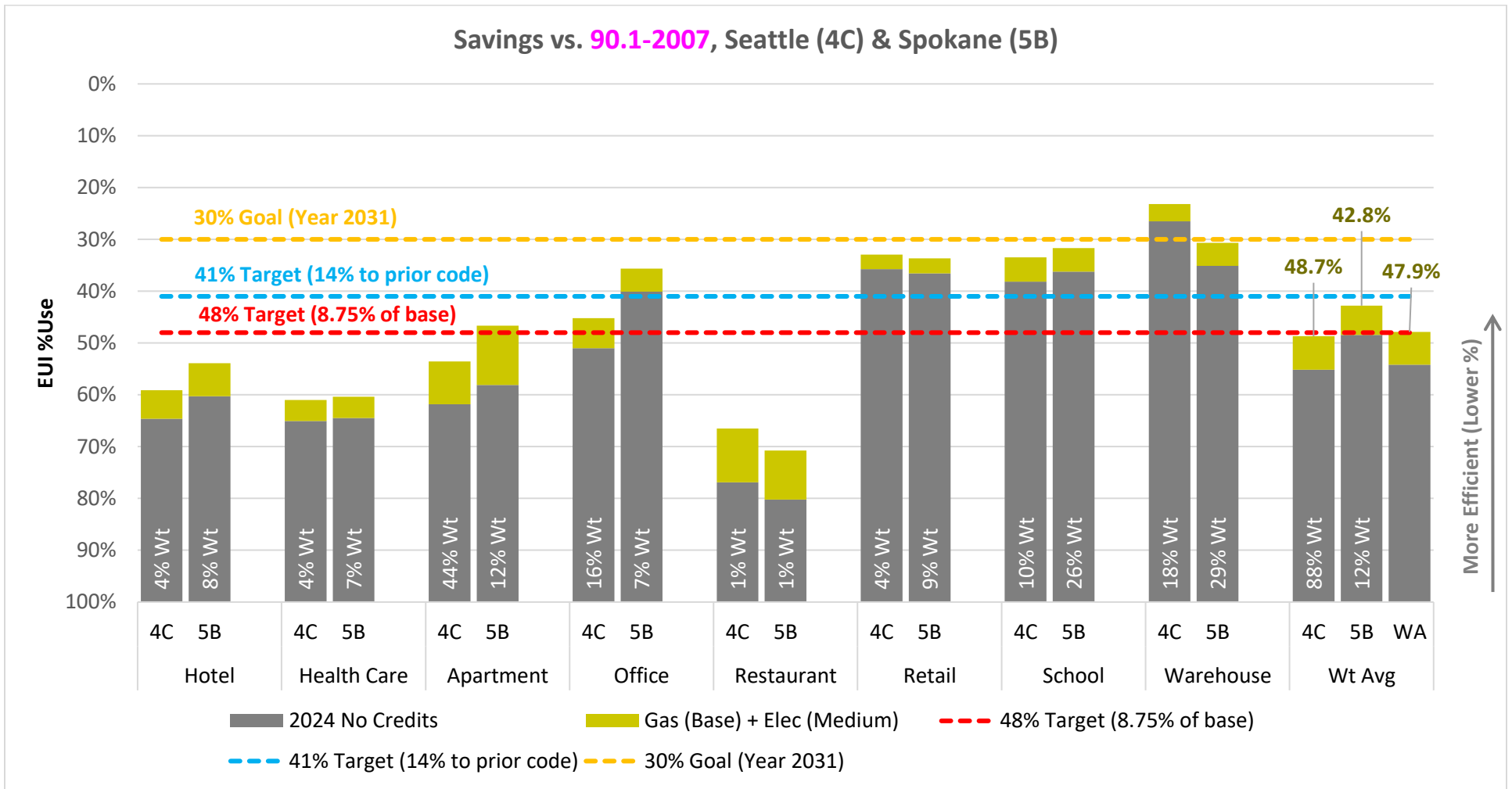
	Credit Measure Values								
	4C (Seattle) / 5B (Spokane)								
	Hotel	Health Care	Apartment	Office	Restaurant	Retail	School	Warehouse	Other
	R-1, R-4, I-1	I-2	R-2	B	A-2	M	E	S-1, S-2	
David Reddy Proposed	179 / 185	50 / 49	284 / 296	38 / 26	122 / 170	175 / 233	123 / 154	268 / 326	231 / 232
Greg Johnson Proposed	101 / 56	101 / 80	249 / 90	142 / 31	136 / 29	103 / 55	145 / 67	233 / 89	200 / 72
Min of Greg or David	101 / 56	50 / 49	249 / 90	38 / 26	122 / 29	103 / 55	123 / 67	233 / 89	200 / 72



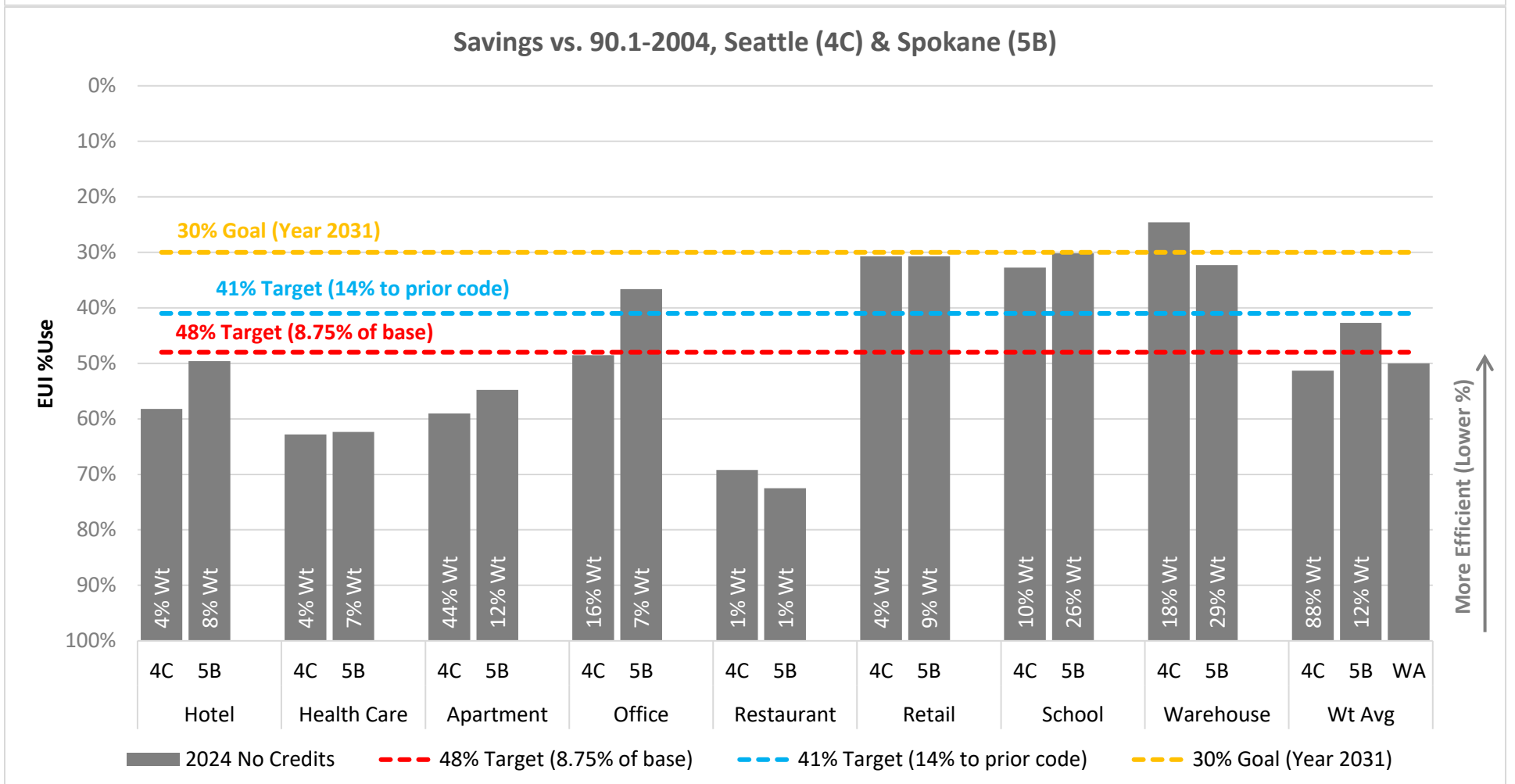
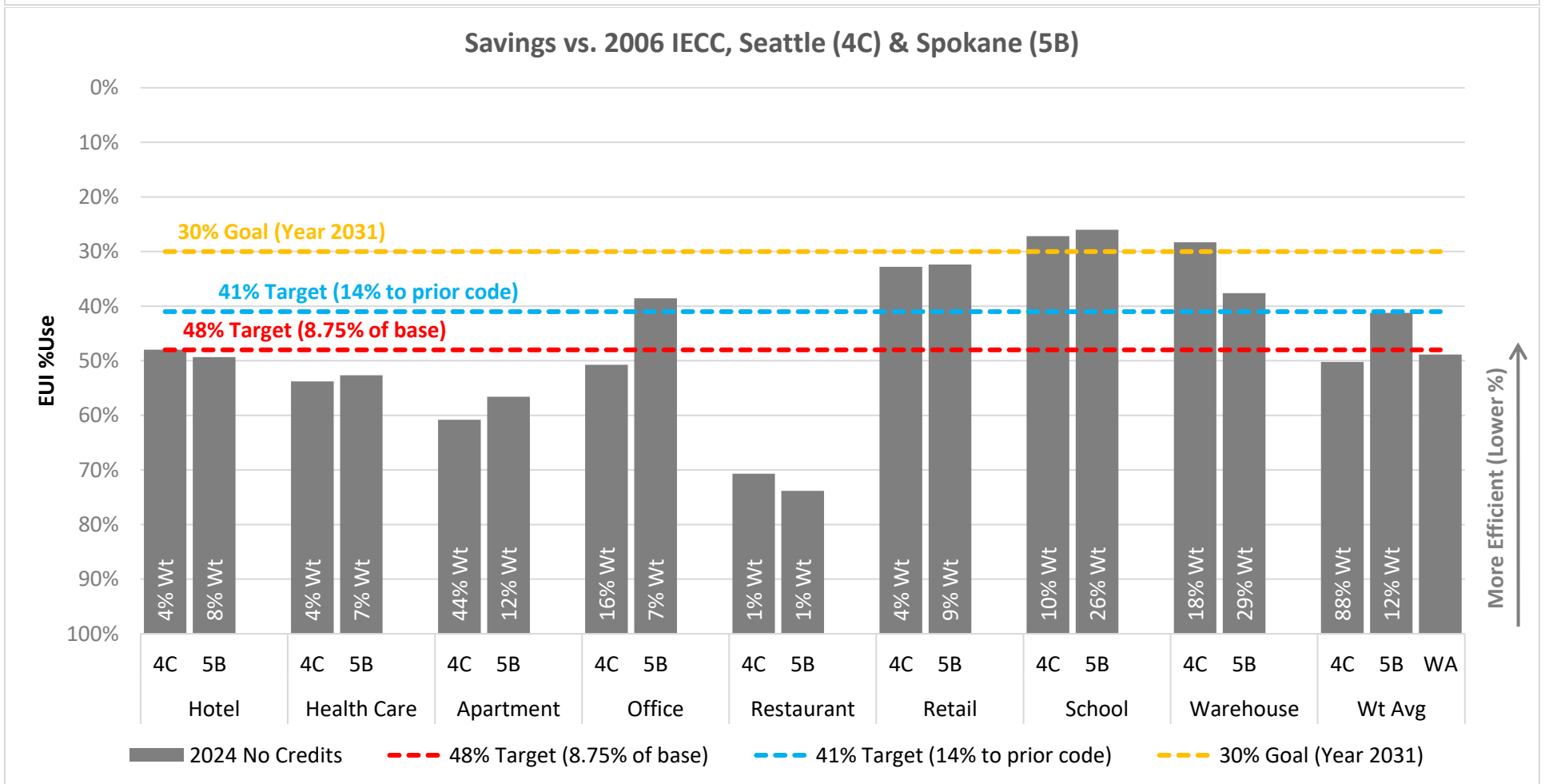
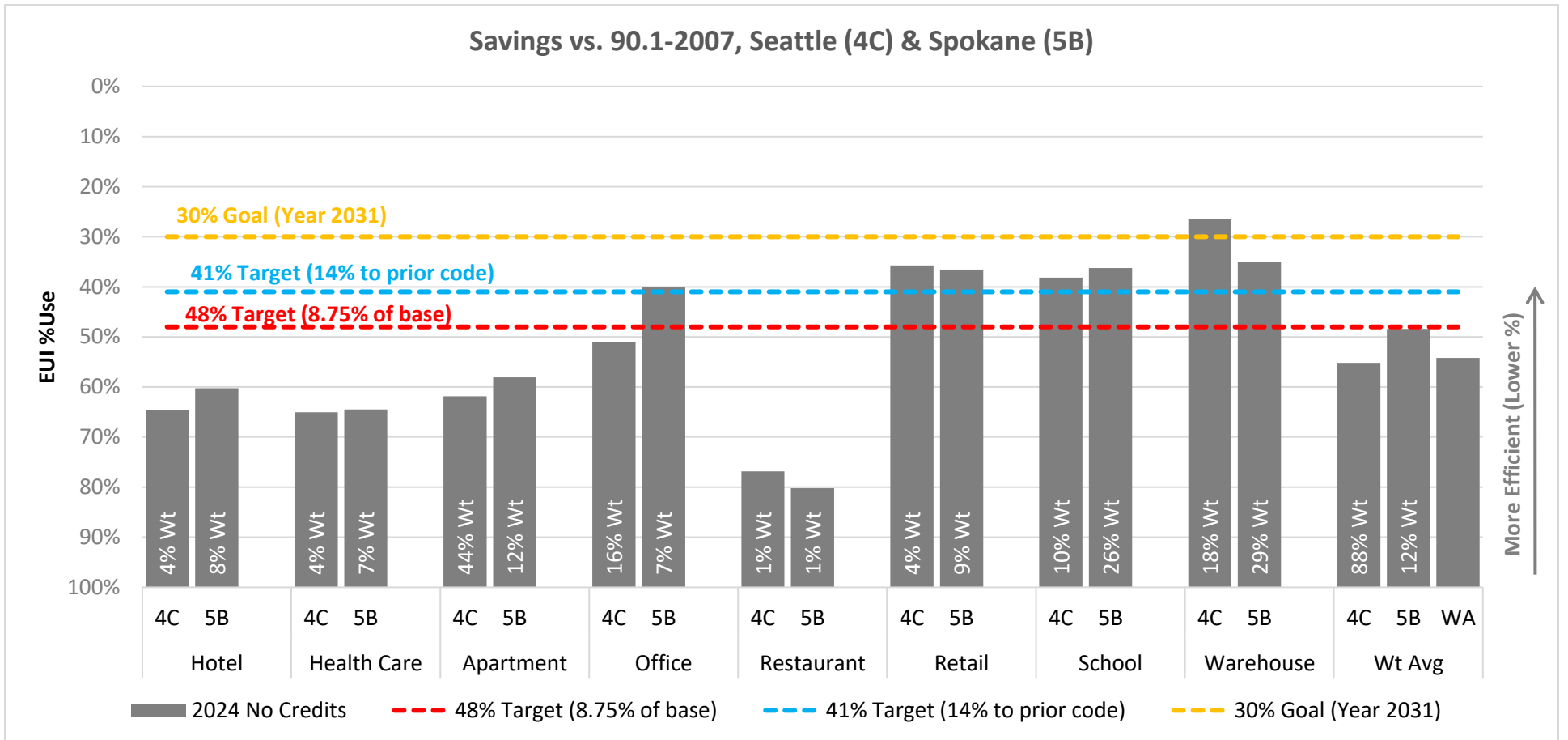
EPCA Test

Note: EPCA compliance is possible above these noted credit values; however, it is not guaranteed as obtaining "hard" credits is not always feasible.

	Credit Measure Values								
	4C (Seattle) / 5B (Spokane)								
	Hotel	Health Care	Apartment	Office	Restaurant	Retail	School	Warehouse	Other
	R-1, R-4, I-1	I-2	R-2	B	A-2	M	E	S-1, S-2	
Gas (Base) + Elec (Medium)	85 / 139	63 / 64	134 / 197	113 / 111	135 / 118	79 / 68	123 / 142	126 / 77	120 / 114



Comparison of Baseline with No Credits



2024 Commercial Energy Code Base Requirement Changes that Impact C406 Credit Measures

<p>Table C402.1.2 Table C402.1.3</p> <ul style="list-style-type: none"> • Integrated Draft • 24-GP1-264R 	<p>Summary: Insulation requirements increased for above grade mass walls, but not for other component types. Credit Impacted: Table C406.2(2): 25. Total UA Improved C406.2.12</p>
<p>Table C402.1.2 Table C402.1.3</p> <ul style="list-style-type: none"> • 24-GP1-256 	<p>Summary: Insulation requirements increased for all above grade walls. Credit Impacted: Table C406.2(2): 25. Total UA Improved C406.2.12</p>
<p>Table C402.1.2 Table C402.1.3</p> <ul style="list-style-type: none"> • Integrated Draft • 24-GP1-255 	<p>Summary: Insulation requirements increased for slabs on grade, both unheated (integrated draft and proposal) and heated (proposal). Credit Impacted: Table C406.2(2): 25. Total UA Improved C406.2.12</p>
<p>C402.1.4 Table C402.1.4</p> <ul style="list-style-type: none"> • Integrated Draft 	<p>Summary: UA component performance equation was replaced with a completely new equation that includes thermal bridging factors. Credit Impacted: Table C406.2(2): 25. Total UA Improved C406.2.12</p>
<p>Table C402.4</p> <ul style="list-style-type: none"> • 24-GP1-169 • 24-GP1-260 	<p>Summary: Reduces maximum U-factors and SHGC for some windows. Credit Impacted: Table C406.2(2): 25. Total UA Improved C406.2.12</p>
<p>Table C402.4</p> <ul style="list-style-type: none"> • 24-GP1-176V2 • 24-GP1-192 	<p>Summary: Requires that 20% of fenestration be “high performance” (e.g., triple pane or better) on all buildings greater than 1,000 square feet with no alternative options for obtaining equal or greater energy savings. Credit Impacted: Table C406.2(2): 25. Total UA Improved C406.2.12</p>
<p>C402.6</p> <ul style="list-style-type: none"> • Integrated Draft 	<p>Summary: Added thermal bridging requirements. Credit Impacted: Table C406.2(2): 25. Total UA Improved C406.2.12</p>
<p>C403.1.1 Appendix D</p> <ul style="list-style-type: none"> • 24-GP1-210V4 • 24-GP1-198 	<p>Summary: HVAC Total System Performance Ration (TSPR) requirements were significantly modified and expanded. Credit Impacted: Table C406.2(4): 2. Improve HVAC TSPR C406.2.2.1</p>
<p>Tables C403.3.2 (1) to (15)</p> <ul style="list-style-type: none"> • Integrated Draft 	<p>Summary: Minimum efficiency requirements of mechanical equipment were increased. Credit Impacted: Table C406.2(4): All, Table C406.2(5) All C406.2.2...</p>
<p>C403.3.5.2</p> <ul style="list-style-type: none"> • 24-GP1-271 	<p>Summary: Minimum efficiency requirements of DOAS fans were increased. Credit Impacted: Table C406.2(3): 7. High performance DOAS C406.2.2.6</p>
<p>C403.7.6.1</p> <ul style="list-style-type: none"> • 24-GP1-273 	<p>Summary: Increases minimum efficiency of heat recovery systems to 67 percent. Credit Impacted: Table C406.2(4): 2. Improve HVAC TSPR C406.2.2.1</p>
<p>C403.8.3 C403.8.6 C202</p> <ul style="list-style-type: none"> • 24-GP1-238R3 	<p>Summary: Improves fan energy index (FEI) requirements. Credit Impacted: Table C406.2(3): 3. Improve fan efficiency C406.2.2.1 Table C406.2(4): 2. Improve HVAC TSPR C406.2.2.1</p>
<p>C403.8.4 C405.8</p> <ul style="list-style-type: none"> • Integrated Draft • 24-GP1-275V3 	<p>Summary: The integrated draft added requirement that all low-capacity ventilation fans must be tested and listed. Proposal 275 expands scope to 1 HP and increases efficacy requirements. Credit Impacted: Table C406.2(3): 3. Improve fan efficiency C406.2.2.1 Table C406.2(4): 2. Improve HVAC TSPR C406.2.2.1</p>
<p>C404.2.1.1</p> <ul style="list-style-type: none"> • 24-GP1-268 	<p>Summary: Doubles the heat pump water heating sizing. Credit Impacted: Table C406.2(7): All C406.2.6.3-4 & C406.2.2.3</p>
<p>C404.7.1.2</p> <ul style="list-style-type: none"> • 24-GP1-278R 	<p>Summary: Require circulation pumps to be variable speed. Credit Impacted: Table C406.2(4): 2. Improved HVAC TSPR C406.2.2.1</p>
<p>C405.2.12</p> <ul style="list-style-type: none"> • Integrated Draft 	<p>Summary: Lighting controls must be provided that turn off lighting and switched receptacles within 20 minutes of unoccupancy. Credit Impacted: Table C406.2(1): 12. Residential lighting control C406.2.4.1</p>
<p>C405.2.2.1</p> <ul style="list-style-type: none"> • 24-GP1-164 	<p>Summary: Reduces max area controlled by override switches to no greater than 2,500 square feet. Credit Impacted: Table C406.2(1): 13. Enhanced lighting control C406.2.4.2</p>
<p>C405.2.2.1</p> <ul style="list-style-type: none"> • 24-GP1-165 	<p>Summary: Reduces max façade length controlled by one daylight sensor to 60 feet. Credit Impacted: Table C406.2(1): 13. Enhanced lighting control C406.2.4.2</p>
<p>C405.3</p> <ul style="list-style-type: none"> • 24-GP1-239R 	<p>Summary: 10% increases in minimum horticultural lighting efficacy. Credit Impacted: Table C406.2(1): 9. Reduced lighting power C406.2.3.1</p>
<p>Table C405.4.2 (1) & (2) Table C405.5.3(2)</p> <ul style="list-style-type: none"> • Integrated Draft • 24-GP1-234 • 24-GP1-292R2 	<p>Summary: Allowable lighting power densities and allowances decreased. Credit Impacted: Table C406.2(1): 9. Reduced lighting power C406.2.3.1</p>
<p>C405.4.2.2.1</p> <ul style="list-style-type: none"> • 24-GP1-246 	<p>Summary: Reduces additional lighting power allowance for retail lighting. Credit Impacted: Table C406.2(1): 9. Reduced lighting power C406.2.3.1</p>
<p>C405.3</p> <ul style="list-style-type: none"> • 24-GP1-247R1 	<p>Summary: Increases minimum efficacy for lighting in sleeping and dwelling units. Credit Impacted: Table C406.2(1): 11. Lamp efficacy improvement C406.2.3.2</p>
<p>C405.14</p> <ul style="list-style-type: none"> • 24-GP1-173 	<p>Summary: Requires that commercial food service equipment meet Energy Start rated. Credit Impacted: Table C406.2(9): 28. Enhanced commercial kitchen equipment C406.2.14</p>
<p>C411.1</p> <ul style="list-style-type: none"> • Integrated Draft 	<p>Summary: Threshold for requiring on-site renewable electricity generation was lowered to 5,000 square feet and the required amount of on-site renewable electricity generation was increased to 0.75 watts per square foot. Credit Impacted: Table C406.2(8): 14. Renewable energy C406.2.5</p>

2024 Credit Measure Values & Independent Ranking of Credit Measure Difficulty/Cost

Ranking Definitions	
L	Low - Feasible for this occupancy/building type and relatively easy/low cost <i>(includes common or standard/typical construction practices)</i>
M	Medium - Feasible for this occupancy/building type, but has medium design or cost impacts
H	High - Maybe technically possible/feasible, but with very high design or cost impacts
NA	n/a - Not applicable for the building type/occupancy

Building Weights	0.041	0.04	0.435	0.156	0.005	0.045	0.097	0.182										
	4C (Seattle)									5B (Spokane)								
	Hotel	Health Care	Apartment	Office	Restaurant	Retail	School	Warehouse	Other	Hotel	Health Care	Apartment	Office	Restaurant	Retail	School	Warehouse	Other
R-1, R-4, I-1	I-2	R-2	B	A-2	M	E	S-1, S-2		R-1, R-4, I-1	I-2	R-2	B	A-2	M	E	S-1, S-2		
Lighting																		
5% reduced lighting power	3	6	1	8	0	8	10	12	6	3	6	1	7	0	6	8	5	5
10% reduced lighting power	6	11	2	17	1	16	21	22	11	6	11	2	13	1	11	16	9	10
20% reduced lighting power	13	22	3	33	2	32	41	47	22	12	22	4	26	1	22	32	17	20
30% reduced lighting power	19	33	5	50	3	47	61	70	33	18	33	6	39	2	33	46	26	30
Lamp efficacy improvement	2	NA	1	NA	NA	NA	NA	NA	1	2	NA	1	NA	NA	NA	NA	NA	0
Residential lighting control	NA	NA	1	NA	NA	NA	NA	NA	0	NA	NA	1	NA	NA	NA	NA	NA	0
Enhanced lighting control	2	4	1	6	0	6	8	9	4	2	4	1	5	0	5	6	4	4
Lighting adjustment factor LTGadj	0.007 3	0.001 4	0.0050	0.004 9	0.0100	0.004 0	0.003 5	0.0023	0.004 3	0.004 7	0.001 1	0.0049	0.003 3	0.0090	0.003 1	0.003 6	0.0019	0.003 1
UA																		
Total UA improved 5%	2	2	6	2	3	20	3	24	9	4	4	11	20	3	26	10	26	16
Total UA improved 10%	3	4	12	4	6	39	6	48	17	7	7	22	38	7	52	19	52	32
Total UA improved 20%	6	8	21	4	11	76	9	89	31	14	14	42	71	13	102	34	104	61
Total UA improved 30%	8	10	28	1	16	107	9	134	43	21	20	62	97	20	151	45	157	89
Total UA improved 40%	10	13	30	-5	22	133	5	176	52	26	26	81	112	27	195	50	212	115
UA adjustment factor UAadj	0.041 6	0.010 0	0.0216	0.010 5	0.0062	0.005 2	0.003 6	0.0027	0.014 2	0.014 9	0.007 0	0.0079	0.010 5	0.0037	0.003 0	0.015 6	0.0014	0.008 2
Air Leakage																		
Air leakage not exceed 90% max	0	0	1	0	0	1	0	3	1	0	0	2	1	0	2	0	3	1
Air leakage not exceed 80% max	0	0	2	0	0	2	0	6	2	1	1	3	2	0	3	1	6	3
Air leakage not exceed 60% max	1	1	4	0	0	4	0	13	4	2	1	7	5	0	5	2	12	6
Air leakage not exceed 40% max	1	1	5	1	0	6	1	17	6	2	2	10	7	1	8	3	18	9
Air leakage not exceed 20% max	1	1	7	1	1	8	1	23	8	3	2	14	9	1	11	4	24	12
Air leakage adjustment factor LEKadj	0.047 7	0.007 5	0.0235	0.002 2	0.0062	0.006 0	0.003 9	0.0028	0.014 0	0.016 2	0.006 6	0.0083	0.010 7	0.0038	0.003 2	0.016 8	0.0015	0.008 7
Ventilation and HVAC Controls																		
Air economizer	32	51	NA	41	NA	3	48	NA	15	21	34	NA	21	NA	2	36	NA	15
Dwelling unit HVAC control	NA	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	27	NA	NA	NA	NA	NA	NA
Add DOAS	-7	33	0	0	0	0	0	20	5	31	33	0	0	0	0	0	22	11
High performance DOAS	0	1	9	4	0	1	7	3	6	0	1	19	5	0	18	22	7	12

Fan power reduced 5%	3	5	3	3	1	3	5	1	3	3	6	3	3	1	2	4	0	2
Fan power reduced 10%	6	10	6	7	2	6	9	1	6	6	11	5	6	1	5	7	0	5
Fan power reduced 20%	12	21	12	14	3	13	18	3	12	11	22	10	12	2	9	14	1	9
TSPR																		
5% improved TSPR	NA	NA	50	-17	NA	155	67	NA	32	NA	NA	85	0	NA	217	88	NA	53
10% improved TSPR	NA	NA	55	-8	NA	164	75	NA	37	NA	NA	92	11	NA	229	99	NA	59
20% improved TSPR	NA	NA	65	10	NA	182	90	NA	47	NA	NA	106	34	NA	253	119	NA	70
30% improved TSPR	NA	NA	75	29	NA	200	106	NA	56	NA	NA	121	56	NA	276	139	NA	81
Space Heating																		
Average of heating	17	113	28	13	88	101	30	150	54	33	114	57	34	135	158	68	230	121
No heating	32	159	62	24	169	200	58	370	121	71	176	144	151	277	334	126	701	318
Gas fuel boiler or furnace min eff.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas fuel boiler or furnace efficiency imp. 05%	2	8	3	1	8	10	3	18	6	3	8	6	3	13	16	7	33	15
Gas fuel boiler or furnace efficiency imp. 10%	3	14	6	2	15	18	5	34	11	6	16	12	6	25	30	12	64	28
Gas fuel boiler or furnace efficiency imp. 15%	4	21	8	3	22	26	8	48	16	9	23	18	9	36	43	18	91	41
Gas fuel boiler or furnace efficiency imp. 20%	5	26	10	4	28	33	10	62	20	12	29	23	12	46	55	23	117	52
Air source heat pump min eff.	19	123	40	14	122	145	36	208	74	31	126	73	35	170	209	76	297	150
Air source heat pump efficiency imp. 20%	21	130	40	15	126	151	37	214	76	36	135	73	37	176	219	81	305	156
Air source heat pump efficiency imp. 40%	23	135	42	15	130	156	39	219	78	40	142	79	40	184	229	86	312	162
Air source heat pump efficiency imp. 60%	24	138	44	16	133	160	40	223	80	42	146	83	42	190	236	89	317	166
Gas heat pump heating min eff.	14	73	19	9	100	91	24	100	38	28	73	36	23	155	137	53	107	73
WSHP min eff. (w/ gas boiler)	12	148	1	12	29	37	28	83	28	17	134	1	21	46	59	52	177	84
WSHP efficiency imp. 20% (w/ gas boiler)	14	150	5	13	36	46	30	93	33	21	137	10	25	59	74	57	189	92
WSHP efficiency imp. 40% (w/ gas boiler)	16	151	7	14	41	52	31	100	36	25	140	16	27	68	86	62	198	99
WSHP efficiency imp. 60% (w/ gas boiler)	17	151	9	14	45	57	32	105	38	27	142	20	29	75	94	65	205	103
WSHP min eff. (w/ AWHP)	21	150	40	18	120	137	39	201	74	43	150	81	48	185	213	90	300	160
WSHP efficiency imp. 20% (w/ AWHP)	23	152	44	19	127	146	41	211	79	47	153	90	52	198	228	95	312	168
WSHP efficiency imp. 40% (w/ AWHP)	25	153	46	20	132	152	42	218	81	51	156	96	54	207	240	100	321	175
WSHP efficiency imp. 60% (w/ AWHP)	26	153	48	20	136	157	43	223	84	53	158	100	56	214	248	103	328	179
GSHP heating min eff.	24	150	48	19	140	157	41	226	84	55	154	105	57	226	254	103	337	183
GSHP heating efficiency imp. 20%	26	151	50	20	144	162	42	231	86	57	157	110	59	231	263	106	342	188
GSHP heating efficiency imp. 40%	27	152	52	20	146	166	43	235	88	59	159	113	61	235	269	109	347	191
GSHP heating efficiency imp. 60%	27	153	53	21	148	169	44	238	89	61	161	116	62	238	274	111	350	194
Space Cooling																		
Average of cooling	-1	18	12	21	5	13	12	0	11	5	23	14	26	7	20	20	0	13
No cooling	42	53	49	115	13	57	91	15	57	50	61	56	119	17	70	110	13	63
Direct expansion min eff.	0	4	0	6	0	0	0	0	1	0	2	0	4	0	0	0	0	0
Direct expansion efficiency imp. 25%	9	15	10	28	3	13	21	0	12	10	15	12	28	4	16	25	0	13
Direct expansion efficiency imp. 50%	30	23	61	61	20	35	47	0	44	33	22	72	59	21	39	49	0	34
Direct expansion efficiency imp. 75%	35	28	64	69	21	41	55	0	48	38	28	76	69	23	47	60	0	39
Air cooled chiller min eff.	9	-5	-16	0	5	4	-2	0	-7	9	-5	-14	0	4	9	6	0	1
Air cooled chiller efficiency imp. 20%	13	1	-10	9	6	10	9	0	-1	13	1	-7	10	6	17	19	0	8
Air cooled chiller efficiency imp. 40%	14	6	-4	18	6	11	13	0	4	14	7	0	19	7	18	23	0	11
Air cooled chiller efficiency imp. 60%	15	10	0	23	7	13	17	0	7	15	11	5	25	8	19	27	0	13
Water cooled chiller min eff.	12	39	-11	18	6	8	-10	0	-1	17	37	-3	29	9	19	4	0	9
Water cooled chiller efficiency imp. 20%	14	44	-5	25	6	11	-2	0	4	19	42	4	36	10	22	12	0	13

Water cooled chiller efficiency imp. 40%	15	47	-1	30	7	14	5	0	8	21	45	9	41	11	26	19	0	16
Water cooled chiller efficiency imp. 60%	17	50	3	35	8	16	10	0	11	22	48	13	46	11	28	24	0	19
WSHP cooling min eff.	-46	-15	4	-13	-1	-4	-17	-3	-5	-33	4	1	-10	1	3	-10	-1	-5
WSHP cooling efficiency imp. 20%	-31	4	13	5	2	7	2	0	6	-20	21	11	12	4	15	11	1	7
WSHP cooling efficiency imp. 40%	-21	18	20	18	4	15	15	2	14	-10	34	18	27	6	24	26	3	16
WSHP cooling efficiency imp. 60%	-13	28	25	28	5	21	26	4	20	-3	43	23	39	8	30	38	4	23
GSHP min eff.	-39	-8	9	-8	-2	-4	-11	-4	-1	-28	7	5	-6	-2	1	-7	-3	-4
GSHP efficiency imp. 20%	-26	9	18	10	0	7	7	-1	10	-16	23	14	15	2	13	13	-1	8
GSHP efficiency imp. 40%	-16	21	24	22	2	15	20	1	17	-7	35	21	30	4	22	27	1	16
GSHP efficiency imp. 60%	-9	31	28	32	3	20	29	2	22	0	44	26	41	5	29	38	2	23
Service Water Usage & Recovery																		
Service water heat recovery	36	0	110	17	0	24	35	0	56	34	0	100	16	0	19	32	0	26
Service water recovery adjustment factor RCVR _{Yadj}	0.0033	0.0159	0.0024	0.0135	0.0052	0.0152	0.0075	0.0187	0.0087	0.0034	0.0162	0.0026	0.0148	0.0059	0.0194	0.0082	0.0391	0.0183
Distribution sizing	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	10	NA	NA	NA	NA	NA	NA
Shower drain heat recovery	12	NA	37	NA	NA	NA	8	0	17	11	NA	33	NA	NA	NA	7	NA	7
Heat trace system	2	0	3	1	0	0	5	7	3	2	0	3	1	0	0	5	3	3
High efficiency SWH circulation system	1	0	2	0	0	0	3	4	2	1	0	2	0	0	0	3	2	2
Low flow residential showerheads, 1.5gpm	10	NA	17	NA	NA	NA	NA	NA	8	9	NA	16	NA	NA	NA	NA	NA	3
Low flow residential showerheads, 1.25gpm	18	NA	32	NA	NA	NA	NA	NA	15	17	NA	29	NA	NA	NA	NA	NA	5
Service water use adjustment factor USE _{adj}	0.0036	0.0187	0.0025	0.0139	0.0052	0.0174	0.0089	0.0207	0.0096	0.0037	0.0190	0.0027	0.0152	0.0059	0.0222	0.0097	0.0434	0.0204
Service Water Efficiency																		
High performance service hot water temp maintenance system	19	14	56	7	6	20	36	14	34	18	14	48	6	5	16	31	7	20
Point of use water heater	0	0	0	32	0	58	88	46	24	0	0	0	28	0	47	80	23	34
Service Water Heating																		
Average of water heating efficiency	80	16	134	30	58	22	34	20	75	78	16	125	29	51	18	31	10	38
No Service water heating	360	79	462	74	240	106	175	88	269	373	78	436	115	206	87	162	44	161
Gas fired > 105 kBtu/h (Et rated) min eff.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gas fired > 105 kBtu/h (Et rated) efficiency imp. 10%	32	7	42	7	18	10	14	8	24	31	7	39	6	16	8	13	4	14
Gas fired > 105 kBtu/h (Et rated) efficiency imp. 20%	58	13	77	12	34	18	27	15	45	57	13	71	12	30	15	24	7	25
Gas fired <= 105 kBtu/h (UEF rated) min eff.	0	0	-72	0	0	0	0	0	-31	0	0	-43	0	0	0	0	0	-5
Gas fired <= 105 kBtu/h (EUF rated) efficiency imp. 20%	0	0	14	22	9	8	0	10	12	0	0	22	25	7	7	0	5	7
Gas fired <= 105 kBtu/h (EUF rated) efficiency imp. 40%	0	0	74	37	25	16	0	17	42	0	0	71	41	21	14	0	8	15
Gas fired <= 105 kBtu/h (EUF rated) efficiency imp. 60%	0	0	116	46	38	23	0	23	63	0	0	107	52	33	19	0	11	22
Electric heat pump min eff.	186	36	267	48	129	38	75	32	148	179	35	243	44	113	30	69	15	75
Electric heat pump efficiency imp. 20%	199	38	288	51	139	40	80	33	159	192	37	263	46	122	31	74	16	81
Electric heat pump efficiency imp. 40%	208	40	303	53	147	40	83	33	167	202	39	277	48	129	32	77	16	84
Electric heat pump efficiency imp. 60%	215	41	314	54	152	41	86	34	173	209	40	288	50	134	32	80	16	87
Gas heat pump min eff.	66	15	180	27	79	27	41	31	97	64	15	167	25	69	22	39	16	46
Other																		
Enhanced residential laundry equipment	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	2	NA	NA	NA	NA	NA	NA
Heat pump clothes dryers	30	NA	21	NA	NA	NA	NA	NA	NA	28	NA	17	NA	NA	NA	NA	NA	NA
Elevator lift efficiency	12	7	13	27	0	0	2	0	11	11	6	11	25	0	0	2	0	5
Commercial kitchen equipment	0	0	0	0	21	0	0	0	0	0	0	0	0	17	0	0	0	0

Residential kitchen equipment	0	NA	5	NA	NA	NA	NA	NA	NA	0	NA	4	NA	NA	NA	NA	NA	NA
Induction cooktops	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	1	NA	NA	NA	NA	NA	NA
Renewable energy	5	5	10	16	1	16	15	58	20	6	5	10	17	1	14	16	32	18