

Appliance Standards Awareness Project

2023 State Appliance Standards Recommendations

Savings estimates for: [Hawaii](#)

	Potential annual savings in 2030						Potential annual savings in 2040					
	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Air purifiers	16.0	--	--	27.6	42.0	8.9	26.1	--	--	31.9	50.4	12.0
Commercial dishwashers	0.9	22	31	2.6	2.4	1.7	2.2	53	74	5.1	4.2	3.9
Commercial fryers	0.3	115	--	5.8	0.9	6.3	0.8	251	--	12.3	1.4	13.7
Commercial ovens	0.9	15	--	2.3	2.4	1.3	2.0	32	--	3.9	3.9	2.7
Commercial steam cookers	0.6	5	13	1.2	1.5	0.6	1.3	10	28	2.0	2.5	1.2
Electric vehicle supply equipment	1.5	--	--	2.6	4.0	0.8	10.1	--	--	12.3	19.4	4.6
Gas fireplaces	--	22	--	1.0	--	1.2	--	61	--	2.7	--	3.2
Portable electric spas	6.9	--	--	12.0	18.2	3.9	11.6	--	--	14.3	22.5	5.4
Residential ventilating fans	1.3	--	--	2.3	3.5	0.7	3.6	--	--	4.4	6.9	1.7
Toilets (water closets)	--	--	83	--	--	--	--	--	219	--	--	--
Urinals	--	--	16	--	--	--	--	--	35	--	--	--
Water coolers	1.6	--	--	2.7	4.2	0.9	2.9	--	--	3.5	5.6	1.4
Total	30	179	142	60	79	26	60	407	357	92	117	50

Assuming a compliance date of 2025 for all the recommended standards. Totals may not sum due to rounding. While we continue to recommend the adoption of state-level standards for commercial hot-food holding cabinets, we have not estimated savings for these products due to insufficient data on the current market.

Savings estimates for: [Hawaii](#)

	Potential annual utility bill savings (million 2021\$)		Net present value savings (million 2021\$)	Benefit-cost ratio	Payback period (years)
	In 2030	In 2040			
Air purifiers	5.1	8.5	62.8	15.2	0.5
Commercial dishwashers	1.4	3.9	25.9	19.8	0.6
Commercial fryers	3.3	8.9	58.2	11.9	1.0
Commercial ovens	0.7	1.7	9.6	4.6	2.3
Commercial steam cookers	0.5	1.3	8.6	20.0	0.5
Electric vehicle supply equipment	0.5	3.3	20.1	no cost	0.0
Gas fireplaces	0.7	2.4	15.5	36.5	0.3
Portable electric spas	2.2	3.8	27.3	11.6	0.6
Residential ventilating fans	0.4	1.2	8.1	no cost	0.0
Toilets (water closets)	1.4	4.2	36.0	no cost	0.0
Urinals	0.3	0.7	4.7	no cost	0.0
Water coolers	0.4	0.8	6.3	no cost	0.0
Total	17	40	283	17.4	--

Assuming a compliance date of 2025 for all the recommended standards. Net present value savings take into account both utility bill savings and estimated impacts on product costs for items sold between 2025 and 2040. Totals may not sum due to rounding. The total benefit-cost ratio is calculated as the present value of the total utility bill savings from products sold through 2040 for the package of recommended standards divided by the present value of the total additional costs. While we continue to recommend the adoption of state-level standards for commercial hot-food holding cabinets, we have not estimated savings for these products due to insufficient data on the current market.

Cumulative savings estimates for: [Hawaii](#)

	Potential cumulative savings through 2040					
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Air purifiers	300	--	--	436.1	674.2	153.3
Commercial dishwashers	20	0.5	0.7	51.9	45.1	37.7
Commercial fryers	8	2.5	--	124.3	16.6	137.2
Commercial ovens	20	0.3	--	43.5	44.7	28.1
Commercial steam cookers	13	0.1	0.3	22.9	28.3	12.3
Electric vehicle supply equipment	57	--	--	77.9	121.1	28.1
Gas fireplaces	--	0.5	--	23.3	--	27.3
Portable electric spas	132	--	--	192.1	297.2	67.5
Residential ventilating fans	30	--	--	43.2	66.9	15.3
Toilets (water closets)	--	--	1.9	--	--	--
Urinals	--	--	0.3	--	--	--
Water coolers	32	--	--	45.8	70.9	17.3
Total	612	4	3	1,061	1,365	524

Assuming a compliance date of 2025 for all the recommended standards. Totals may not sum due to rounding. While we continue to recommend the adoption of state-level standards for commercial hot-food holding cabinets, we have not estimated savings for these products due to insufficient data on the current market.