

Appliance Standards Awareness Project

2022 State Appliance Standards Recommendations

Savings estimates for: United States

	Potential annual savings in 2030						Potential annual savings in 2040					
	Electricity (TWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (thous . tons)	SO ₂ (thous . tons)	CO ₂ (MMT)	Electricity (TWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (thous . tons)	SO ₂ (thous . tons)	CO ₂ (MMT)
Air purifiers	4.6	--	--	0.7	0.5	1.4	6.4	--	--	0.8	0.6	1.6
Commercial dishwashers	0.2	5	7	0.3	0.02	0.3	0.4	10	14	0.5	0.04	0.6
Commercial fryers	0.1	24	--	1.1	0.01	1.3	0.1	44	--	2.0	0.01	2.4
Commercial ovens	0.2	3	--	0.2	0.02	0.2	0.4	6	--	0.3	0.03	0.4
Commercial steam cookers	0.1	1	2	0.1	0.01	0.1	0.2	2	4	0.1	0.02	0.1
Electric vehicle supply equipment	0.5	--	--	0.1	0.05	0.1	2.9	--	--	0.3	0.3	0.7
Faucets	3.4	21	96	1.4	0.4	2.2	5.2	33	147	2.1	0.5	3.1
Gas fireplaces	--	6	--	0.3	--	0.3	--	13	--	0.6	--	0.7
General service lamps (state-regulated)	2.6	--	--	0.4	0.3	0.8	3.8	--	--	0.5	0.4	0.9
High CRI fluorescent lamps	2.4	--	--	0.3	0.3	0.7	0.6	--	--	0.1	0.1	0.2
Portable electric spas	1.8	--	--	0.3	0.2	0.5	2.6	--	--	0.3	0.3	0.6
Residential ventilating fans	0.7	--	--	0.1	0.1	0.2	1.5	--	--	0.2	0.2	0.4
Showerheads	3.2	20	62	1.4	0.4	2.0	4.9	31	95	2.0	0.5	2.9
Spray sprinkler bodies	--	--	261	--	--	--	--	--	402	--	--	--
Toilets (water closets)	--	--	28	--	--	--	--	--	68	--	--	--
Urinals	--	--	4	--	--	--	--	--	8	--	--	--
Water coolers	0.9	--	--	0.1	0.1	0.3	1.4	--	--	0.2	0.1	0.4
Total	21	80	460	7	2	10	30	138	738	10	3	15

Assuming a compliance date of 2024 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 and computers and computer monitors, we have not estimated savings for these products due to insufficient data on the current market.

Savings estimates for: United States

	Potential annual utility bill savings (million 2020\$)		Net present value savings (billion 2020\$)	Benefit-cost ratio	Payback period (years)
	In 2030	In 2040			
Air purifiers	655	913	7.5	no cost	0.0
Commercial dishwashers	156	345	2.3	9.7	1.1
Commercial fryers	222	422	2.3	3.4	2.9
Commercial ovens	49	91	0.2	1.5	6.3
Commercial steam cookers	49	98	0.7	10.8	0.9
Electric vehicle supply equipment	67	416	2.6	no cost	0.0
Faucets	1,904	3,203	24.9	no cost	0.0
Gas fireplaces	68	163	1.1	12.1	1.0
General service lamps (state-regulated)	367	540	5.4	no cost**	0.4
High CRI fluorescent lamps	281	71	1.3	3.5	1.8
Portable electric spas	250	368	2.6	7.8	0.8
Residential ventilating fans	93	216	1.6	no cost	0.0
Showerheads	1,424	2,375	18.5	no cost	0.0
Spray sprinkler bodies	3,356	5,893	41.1	11.5	0.8
Toilets (water closets)	366	1,000	8.5	no cost	0.0
Urinals	56	117	0.9	no cost	0.0
Water coolers	98	146	1.2	no cost	0.0
Total	9,457	16,377	123	20.1	–

Assuming a compliance date of 2024 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 2024 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 and computers and computer monitors, we have not estimated savings for these products due to insufficient data on the current market.

**While LEDs are generally more expensive to purchase than incandescent light bulbs, the significantly longer lifetime of LEDs means that over time, consumers actually save money on bulbs in addition to saving money on electricity bills.

Cumulative savings estimates for: United States

	Potential cumulative savings through 2040					
	Electricity (TWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (thous. tons)	SO ₂ (thous. tons)	CO ₂ (MMT)
Air purifiers	80	--	--	10.7	8.5	22.2
Commercial dishwashers	4	105	146	5.3	0.4	6.8
Commercial fryers	1.6	483	--	22.1	0.2	26.1
Commercial ovens	4	62	--	3.3	0.4	4.4
Commercial steam cookers	2	17	47	1.0	0.2	1.5
Electric vehicle supply equipment	17	--	--	2.2	1.7	4.5
Faucets	62	393	1,766	26.0	6.7	38.9
Gas fireplaces	--	127	--	5.7	--	6.7
General service lamps (state-regulated)	45	--	--	6.1	4.8	12.6
High CRI fluorescent lamps	24	--	--	3.3	2.6	7.6
Portable electric spas	32	--	--	4.5	3.7	8.7
Residential ventilating fans	14	--	--	1.9	1.5	3.9
Showerheads	59	367	1,136	24.4	6.4	36.6
Spray sprinkler bodies	--	--	4,821	--	--	--
Toilets (water closets)	--	--	620	--	--	--
Urinals	--	--	88	--	--	--
Water coolers	17	--	--	2.2	1.7	5.0
Total	363	1,553	8,623	119	39	186

Assuming a compliance date of 2024 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 and computers and computer monitors, we have not estimated savings for these products due to insufficient data on the current market.