

Appliance Standards Awareness Project

2022 State Appliance Standards Recommendations

Savings estimates for: Virginia

	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	121.0	--	--	8.5	5.9	33.4	167.6	--	--	9.2	6.6	37.8
Commercial dishwashers	5.3	129	180	6.2	0.3	8.4	10.6	262	365	12.4	0.4	16.3
Commercial fryers	2.0	618	--	28.2	0.1	33.4	3.7	1,141	--	51.9	0.1	61.5
Commercial ovens	4.9	79	--	3.9	0.2	5.6	9.1	146	--	7.1	0.4	9.9
Commercial steam cookers	2.7	21	60	1.2	0.1	1.9	5.0	40	111	2.1	0.2	3.2
Electric vehicle supply equipment	12.3	--	--	0.9	0.6	3.4	76.3	--	--	4.2	3.0	17.2
Faucets	126.0	386	2,490	26.3	6.2	55.3	193.8	590	3,821	37.3	7.6	75.1
Gas fireplaces	--	416	--	18.9	--	22.1	--	960	--	43.5	--	51.0
General service lamps (state-regulated)	67.8	--	--	4.7	3.3	18.7	99.1	--	--	5.4	3.9	22.4
High CRI fluorescent lamps	85.6	--	--	6.0	4.2	24.2	19.3	--	--	1.1	0.8	4.4
Portable electric spas	41.0	--	--	2.9	2.0	11.3	59.9	--	--	3.3	2.4	13.5
Residential ventilating fans	17.2	--	--	1.2	0.8	4.7	39.7	--	--	2.2	1.6	9.0
Showerheads	119.2	358	1,600	24.6	5.8	51.9	183.3	551	2,461	35.0	7.2	70.7
Spray sprinkler bodies	--	--	3,841	--	--	--	--	--	5,909	--	--	--
Toilets (water closets)	--	--	738	--	--	--	--	--	1,768	--	--	--
Urinals	--	--	112	--	--	--	--	--	208	--	--	--
Water coolers	35.6	--	--	2.5	1.7	10.1	54.7	--	--	3.0	2.2	12.5
Total	641	2,008	9,021	136	31	285	922	3,690	14,642	218	36	404

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: Virginia

	Potential annual utility bill savings (million 2020\$)		Net present value savings (million 2020\$)	Benefit-cost ratio	Payback period (years)
	In 2030	In 2040			
Air purifiers	15.1	21.0	173.8	no cost	0.0
Commercial dishwashers	4.0	8.8	57.8	9.6	1.2
Commercial fryers	5.8	11.1	59.9	3.5	2.9
Commercial ovens	1.1	2.1	4.2	1.3	7.0
Commercial steam cookers	1.2	2.4	16.5	10.3	1.0
Electric vehicle supply equipment	1.5	9.6	58.8	no cost	0.0
Faucets	53.5	89.8	698.6	no cost	0.0
Gas fireplaces	5.3	12.9	85.1	13.3	0.9
General service lamps (state-regulated)	8.5	12.4	125.5	no cost**	0.4
High CRI fluorescent lamps	7.2	1.8	28.3	2.6	2.2
Portable electric spas	5.1	7.5	52.7	6.9	0.9
Residential ventilating fans	2.1	5.0	36.0	no cost	0.0
Showerheads	40.6	67.5	527.3	no cost	0.0
Spray sprinkler bodies	50.7	89.0	622.1	11.8	0.8
Toilets (water closets)	9.7	26.6	227.3	no cost	0.0
Urinals	1.5	3.1	23.1	no cost	0.0
Water coolers	2.9	4.4	35.8	no cost	0.0
Total	216	375	2,833	22.8	-

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: Virginia

	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	2,095	--	--	136.3	99.3	548.4
Commercial dishwashers	111	2.7	3.8	130.6	5.1	175.8
Commercial fryers	41	12.6	--	571.5	1.9	678.1
Commercial ovens	100	1.6	--	79.4	4.7	113.6
Commercial steam cookers	55	0.4	1.2	23.3	2.5	38.5
Electric vehicle supply equipment	444	--	--	26.8	19.0	110.1
Faucets	2,326	7.1	45.9	472.3	109.3	983.9
Gas fireplaces	--	9.1	--	413.5	--	484.6
General service lamps (state-regulated)	1,175	--	--	78.3	59.7	309.9
High CRI fluorescent lamps	833	--	--	59.9	46.8	249.2
Portable electric spas	740	--	--	48.2	35.4	193.6
Residential ventilating fans	377	--	--	23.9	17.3	96.7
Showerheads	2,200	6.6	29.5	442.1	103.4	925.1
Spray sprinkler bodies	--	--	70.9	--	--	--
Toilets (water closets)	--	--	16.1	--	--	--
Urinals	--	--	2.3	--	--	--
Water coolers	657	--	--	42.5	30.9	184.8
Total	11,153	40	170	2,548	535	5,092

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.