

Appliance Standards Awareness Project

2024 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)
Commercial battery chargers	4.5	--	--	0.3	0.2	1.1	12.2	--	--	0.4	0.5	1.5
Commercial dishwashers	7.3	179	250	8.6	0.3	11.3	21.4	525	731	24.5	0.9	30.5
Commercial fryers	2.0	673	--	30.6	0.1	36.2	5.4	1,793	--	81.5	0.2	95.9
Commercial ovens	5.3	85	--	4.2	0.2	5.8	14.2	227	--	10.8	0.6	13.8
Commercial steam cookers	3.4	27	75	1.4	0.2	2.2	8.9	71	199	3.5	0.4	4.9
Faucets	43.7	138	910	9.1	2.0	18.1	97.1	302	2,014	16.9	3.9	28.1
Gas fireplaces	--	211	--	9.6	--	11.2	--	681	--	30.9	--	36.2
High CRI fluorescent lamps	52.2	--	--	3.4	2.4	12.8	17.9	--	--	0.6	0.7	2.2
Irrigation controllers	--	--	1,429	--	--	--	--	--	4,605	--	--	--
Portable electric spas	21.7	--	--	1.4	1.0	5.4	42.8	--	--	1.4	1.7	5.3
Residential ventilating fans	2.7	--	--	0.2	0.1	0.7	8.8	--	--	0.3	0.4	1.1
Showerheads	55.4	171	783	11.3	2.6	22.7	123.1	379	1,739	21.3	4.9	35.4
Spray sprinkler bodies	--	--	2,629	--	--	--	--	--	5,843	--	--	--
Toilets (water closets)	--	--	331	--	--	--	--	--	1,007	--	--	--
Urinals	--	--	74	--	--	--	--	--	198	--	--	--
Water coolers	41.6	--	--	2.7	1.9	10.2	92.4	--	--	3.0	3.7	11.4
Total	240	1,484	6,218	83	11	138	444	3,980	14,612	195	18	266

Assuming a compliance date of 2026 for all the recommended standards. 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. We accounted for the interaction effects among irrigation controllers and spray sprinkler bodies in calculating the total water savings. The total potential water savings are thus smaller than the sum of the individual products.

Savings estimates for: Virginia

	Potential annual utility bill savings (million 2022\$)		Net present value savings (million 2022\$)	Payback period (years)
	In 2030	In 2040		
Commercial battery chargers	0.3	0.9	5.6	3.1
Commercial dishwashers	5.6	18.4	155.0	1.2
Commercial fryers	6.6	19.2	128.6	2.9
Commercial ovens	1.2	3.5	7.5	7.4
Commercial steam cookers	1.5	4.5	39.3	1.1
Faucets	19.2	48.3	485.7	0.0
Gas fireplaces	3.0	10.5	90.7	0.8
High CRI fluorescent lamps	4.2	1.7	17.8	2.5
Irrigation controllers	18.8	69.9	632.1	0.8
Portable electric spas	2.7	5.8	48.9	1.1
Residential ventilating fans	0.3	1.2	11.0	0.0
Showerheads	19.5	48.8	489.7	0.0
Spray sprinkler bodies	34.6	88.7	812.9	0.9
Toilets (water closets)	4.4	15.3	190.6	0.0
Urinals	1.0	3.0	29.5	0.0
Water coolers	3.2	7.7	76.2	0.0
Total	122	321	3,133	-

Assuming a compliance date of 2026 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 2026 and 2050. 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. We accounted for the interaction effects among irrigation controllers and spray sprinkler bodies in calculating the total savings. The totals are thus smaller than the sum of the individual products.

Cumulative savings estimates for: Virginia

	Potential cumulative savings through 2050						Utility bill savings (million 2022\$)
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)	
Commercial battery chargers	231	--	--	8.4	9.5	32.5	16.7
Commercial dishwashers	393	9.7	13.5	452.5	16.1	568.8	338.7
Commercial fryers	102	34.1	--	1,548.1	4.2	1,824.5	358.9
Commercial ovens	269	4.3	--	205.3	11.0	267.0	66.4
Commercial steam cookers	170	1.4	3.8	67.7	7.0	96.1	85.9
Faucets	1,943	6.1	40.3	346.5	80.2	600.4	963.6
Gas fireplaces	--	12.3	--	558.7	--	654.8	189.2
High CRI fluorescent lamps	616	--	--	30.6	30.3	116.4	52.6
Irrigation controllers	--	--	83.4	--	--	--	1,285.8
Portable electric spas	872	--	--	32.7	36.4	126.6	115.3
Residential ventilating fans	160	--	--	5.7	6.6	22.2	21.3
Showerheads	2,462	7.6	34.8	435.1	101.6	756.0	971.8
Spray sprinkler bodies	--	--	116.9	--	--	--	1,780.7
Toilets (water closets)	--	--	21.0	--	--	--	326.1
Urinals	--	--	3.8	--	--	--	57.6
Water coolers	1,847	--	--	68.3	76.2	264.8	151.3
Total	9,064	75	288	3,760	379	5,330	6,329

Assuming a compliance date of 2026 for all the recommended standards. 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. We accounted for the interaction effects among irrigation controllers and spray sprinkler bodies in calculating the total water and utility bill savings. The total potential water and utility bill savings are thus smaller than the sum of the individual products.