

States Go First: How States Can Save Consumers Money, Reduce Energy and Water Waste, and Protect the Environment with New Appliance Standards (Full report at <https://appliance-standards.org/document/states-go-first>)

Savings estimates for: West Virginia

	Potential annual savings in 2025						Potential annual savings in 2035					
	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)
Faucets	36.5	117	717	13.0	27.9	27.8	66.3	207	1,289	20.2	35.9	43.2
Showerheads	26.0	78	341	9.0	19.9	19.5	47.3	142	620	14.2	25.6	30.5
Lawn spray sprinklers	--	--	418	--	--	--	--	--	685	--	--	--
Toilets	--	--	176	--	--	--	--	--	477	--	--	--
Computers and monitors	51.1	--	--	10.7	39.0	31.5	57.2	--	--	9.3	31.0	28.1
High CRI fluorescent lamps	66.3	--	--	13.9	50.7	42.2	22.3	--	--	3.6	12.1	11.1
Air purifiers	13.6	--	--	2.9	10.4	8.1	22.3	--	--	3.6	12.1	10.8
Pool pump replacement motors	14.1	--	--	3.0	10.8	8.3	0.0	--	--	0.0	0.0	0.0
Commercial fryers	0.3	118	--	5.4	0.2	6.4	0.6	257	--	11.8	0.3	13.9
Commercial dishwashers	1.1	26	36	1.4	0.8	2.1	2.6	62	87	3.3	1.4	4.6
Commercial steam cookers	2.0	11	34	0.9	1.5	1.8	4.3	23	73	1.7	2.3	3.4
Portable air conditioners	8.2	--	--	1.7	6.3	4.8	15.7	--	--	2.6	8.5	7.6
Urinals	--	--	55	--	--	--	--	--	119	--	--	--
Audio/video equipment	8.0	--	--	1.7	6.1	4.7	8.0	--	--	1.3	4.3	3.9
Uninterruptible power supplies	9.4	--	--	2.0	7.2	6.0	10.4	--	--	1.7	5.7	5.2
Telephones	4.6	--	--	1.0	3.5	2.8	4.6	--	--	0.7	2.5	2.2
Water coolers	2.8	--	--	0.6	2.1	1.8	5.1	--	--	0.8	2.8	2.5
Ventilation fans	2.0	--	--	0.4	1.5	1.2	4.4	--	--	0.7	2.4	2.2
Portable electric spas	1.6	--	--	0.3	1.2	0.9	2.9	--	--	0.5	1.6	1.4
Hot food holding cabinets	1.3	--	--	0.3	1.0	0.8	2.9	--	--	0.5	1.6	1.4
Compressors	3.1	--	--	0.6	2.3	1.9	7.2	--	--	1.2	3.9	3.6
Total	252	350	1,776	69	193	173	284	691	3,350	78	154	176

Assuming a compliance date of 2020 for almost all of the recommended standards. Products are listed in order of potential national net present value savings. Totals may not sum due to rounding. Potential savings for pool pump replacement motors are zero in 2035 because we assume that the recommended standard would affect just seven years of product sales beginning in 2021.

	Potential annual utility bill savings (million 2016\$)		Net present value savings (million 2016\$)	Benefit-cost ratio	Payback period (years)
	In 2025	In 2035			
Faucets	13.8	27.7	207.5	no cost	0.0
Showerheads	7.9	15.7	118.1	no cost	0.0
Lawn spray sprinklers	4.8	9.0	59.5	8.3	1.0
Toilets	2.0	6.3	55.2	no cost	0.0
Computers and monitors	5.5	6.3	27.4	2.1	2.5
High CRI fluorescent lamps	6.6	2.3	17.7	1.6	3.1
Air purifiers	1.6	2.7	12.2	2.3	3.5
Pool pump replacement motors	1.7	0.0	9.0	6.9	0.9
Commercial fryers	1.4	3.3	16.2	3.0	3.5
Commercial dishwashers	0.8	2.2	14.0	10.5	1.1
Commercial steam cookers	0.7	1.7	11.2	11.3	0.9
Portable air conditioners	1.0	1.9	9.5	2.9	3.2
Urinals	0.6	1.6	11.2	no cost	0.0
Audio/video equipment	0.9	1.0	8.3	no cost	0.0
Uninterruptible power supplies	1.0	1.1	5.4	2.5	2.3
Telephones	0.5	0.5	4.2	no cost	0.0
Water coolers	0.3	0.5	4.0	no cost	0.0
Ventilation fans	0.2	0.5	4.0	no cost	0.0
Portable electric spas	0.2	0.4	2.7	no cost	0.0
Hot food holding cabinets	0.1	0.3	1.5	3.2	3.1
Compressors	0.2	0.5	2.5	3.0	3.4
Total	52	85	601	7.4	-

Assuming a compliance date of 2020 for almost all of the recommended standards. Products are listed in order of potential national net present value savings. Net present value savings take into account both utility bill savings and estimated impacts on product costs for items sold between 2020 and 2035. 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 2035 for the package of 21 recommended standards divided by the present value of the total additional costs.

Cumulative savings estimates for: **West Virginia**

	Potential cumulative savings through 2035					
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Faucets	729	2.3	14.2	242.0	454.3	509.1
Showerheads	520	1.6	6.8	169.0	324.1	359.0
Lawn spray sprinklers	--	--	7.9	--	--	--
Toilets	--	--	4.0	--	--	--
Computers and monitors	740	--	--	142.2	474.1	413.2
High CRI fluorescent lamps	693	--	--	143.8	478.8	415.8
Air purifiers	257	--	--	48.5	161.0	136.7
Pool pump replacement motors	143	--	--	28.7	97.0	79.6
Commercial fryers	6	2.6	--	118.0	3.5	139.6
Commercial dishwashers	25	0.6	0.8	31.1	15.1	44.7
Commercial steam cookers	43	0.2	0.7	18.5	26.6	36.3
Portable air conditioners	168	--	--	31.6	104.7	89.2
Urinals	--	--	1.2	--	--	--
Audio/video equipment	107	--	--	20.6	68.8	57.8
Uninterruptible power supplies	135	--	--	26.0	86.6	77.0
Telephones	61	--	--	11.8	39.3	34.4
Water coolers	56	--	--	10.5	34.9	31.6
Ventilation fans	44	--	--	8.2	27.2	23.3
Portable electric spas	32	--	--	6.0	19.9	17.0
Hot food holding cabinets	29	--	--	5.3	17.7	16.1
Compressors	69	--	--	12.7	42.1	38.3
Total	3,856	7	36	1,075	2,476	2,519

Assuming a compliance date of 2020 for almost all of the recommended standards. Products are listed in order of potential national net present value savings. Totals may not sum due to rounding.