

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: Washington

	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	148.4	400	2,734	62.8	13.0	55.8	269.7	702	4,913	111.0	21.7	98.1
Showerheads	105.8	263	1,299	43.8	9.3	38.6	192.4	479	2,362	78.2	15.4	68.8
Lawn spray sprinklers	--	--	4,046	--	--	--	--	--	6,620	--	--	--
Toilets	--	--	674	--	--	--	--	--	1,828	--	--	--
Computers and monitors	239.5	--	--	72.0	21.0	55.9	268.3	--	--	78.6	21.5	60.3
High CRI fluorescent lamps	301.7	--	--	90.6	26.5	70.4	98.5	--	--	28.8	7.9	22.1
Air purifiers	49.2	--	--	14.8	4.3	11.5	80.5	--	--	23.6	6.5	18.1
Pool pump replacement motors	21.7	--	--	6.5	1.9	5.1	0.0	--	--	0.0	0.0	0.0
Commercial fryers	1.0	468	--	21.6	0.1	25.1	2.3	1,022	--	47.2	0.2	54.8
Commercial dishwashers	4.3	103	143	6.0	0.4	6.5	10.4	247	345	14.3	0.8	15.5
Commercial steam cookers	7.9	42	134	4.3	0.7	4.1	17.2	91	292	9.2	1.4	8.7
Portable air conditioners	26.9	--	--	8.1	2.4	6.3	51.3	--	--	15.0	4.1	11.6
Urinals	--	--	218	--	--	--	--	--	475	--	--	--
Audio/video equipment	28.9	--	--	8.7	2.5	6.7	28.9	--	--	8.5	2.3	6.5
Uninterruptible power supplies	50.3	--	--	15.1	4.4	11.7	55.7	--	--	16.3	4.5	12.5
Telephones	16.9	--	--	5.1	1.5	3.9	16.9	--	--	4.9	1.4	3.8
Water coolers	10.5	--	--	3.2	0.9	2.5	19.1	--	--	5.6	1.5	4.3
Ventilation fans	7.3	--	--	2.2	0.6	1.7	16.0	--	--	4.7	1.3	3.6
Portable electric spas	13.7	--	--	4.1	1.2	3.2	25.0	--	--	7.3	2.0	5.6
Hot food holding cabinets	5.2	--	--	1.6	0.5	1.2	11.4	--	--	3.3	0.9	2.6
Compressors	6.3	--	--	1.9	0.6	1.5	15.0	--	--	4.4	1.2	3.4
Total	1,046	1,276	9,248	372	92	312	1,179	2,541	16,834	461	95	400

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	49.2	101.0	749.1	no cost	0.0
Showerheads	27.7	57.2	424.4	no cost	0.0
Lawn spray sprinklers	44.4	83.7	548.4	7.9	1.1
Toilets	7.4	23.1	202.5	no cost	0.0
Computers and monitors	20.4	23.0	73.1	1.6	3.2
High CRI fluorescent lamps	24.1	8.0	38.7	1.3	3.7
Air purifiers	4.7	8.3	30.4	1.9	4.3
Pool pump replacement motors	2.1	0.0	10.6	5.6	1.2
Commercial fryers	6.3	17.2	89.7	3.8	3.0
Commercial dishwashers	3.3	9.3	58.9	11.0	1.1
Commercial steam cookers	2.6	6.5	42.6	10.9	1.0
Portable air conditioners	2.6	5.3	22.9	2.4	3.9
Urinals	2.4	6.0	42.8	no cost	0.0
Audio/video equipment	2.8	3.0	24.5	no cost	0.0
Uninterruptible power supplies	4.1	4.4	18.1	1.9	2.8
Telephones	1.4	1.4	12.2	no cost	0.0
Water coolers	0.8	1.5	11.5	no cost	0.0
Ventilation fans	0.7	1.6	11.9	no cost	0.0
Portable electric spas	1.3	2.6	19.4	no cost	0.0
Hot food holding cabinets	0.4	0.9	3.9	2.5	3.7
Compressors	0.3	0.6	2.1	1.8	5.5
Total	209	365	2,438	6.5	-

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: **Washington**

	Potential cumulative savings through 2035					
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Faucets	2,967	7.8	54.3	1,257.0	248.4	1,100.5
Showerheads	2,117	5.3	26.0	882.4	177.2	768.4
Lawn spray sprinklers	--	--	76.1	--	--	--
Toilets	--	--	15.5	--	--	--
Computers and monitors	3,470	--	--	1,052.8	292.6	820.5
High CRI fluorescent lamps	3,132	--	--	955.4	274.2	778.6
Air purifiers	925	--	--	280.9	77.6	213.6
Pool pump replacement motors	219	--	--	67.0	18.7	51.0
Commercial fryers	23	10.2	--	472.2	1.9	548.2
Commercial dishwashers	98	2.3	3.2	135.3	8.2	146.4
Commercial steam cookers	172	0.9	2.9	93.6	14.3	89.2
Portable air conditioners	552	--	--	167.6	46.2	127.5
Urinals	--	--	4.7	--	--	--
Audio/video equipment	385	--	--	116.7	32.5	88.9
Uninterruptible power supplies	722	--	--	219.1	60.9	172.3
Telephones	226	--	--	68.5	19.1	53.6
Water coolers	210	--	--	63.9	17.6	49.9
Ventilation fans	159	--	--	48.2	13.3	36.7
Portable electric spas	275	--	--	83.4	23.0	63.5
Hot food holding cabinets	114	--	--	34.6	9.5	27.1
Compressors	142	--	--	43.1	11.9	33.7
Total	15,908	27	183	6,042	1,347	5,170

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.