

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: Hawaii

	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	26.9	29	556	44.4	55.7	14.3	48.9	48	999	71.6	89.8	23.1
Showerheads	19.2	16	264	31.5	39.8	10.0	34.9	30	481	50.9	64.0	16.2
Lawn spray sprinklers	--	--	1,289	--	--	--	--	--	2,109	--	--	--
Toilets	--	--	136	--	--	--	--	--	370	--	--	--
Computers and monitors	30.9	--	--	49.6	64.1	15.1	34.6	--	--	49.2	63.6	14.7
High CRI fluorescent lamps	33.4	--	--	53.5	69.2	16.6	11.6	--	--	16.5	21.3	4.9
Air purifiers	8.3	--	--	13.3	17.2	3.9	13.6	--	--	19.3	24.9	5.7
Pool pump replacement motors	3.7	--	--	5.9	7.6	1.7	0.0	--	--	0.0	0.0	0.0
Commercial fryers	0.2	92	--	4.5	0.4	5.0	0.4	200	--	9.8	0.8	10.8
Commercial dishwashers	0.8	20	28	2.3	1.8	1.5	2.0	49	68	5.1	3.8	3.4
Commercial steam cookers	1.5	8	26	2.8	3.2	1.2	3.4	18	57	5.6	6.2	2.4
Portable air conditioners	4.5	--	--	7.3	9.4	2.2	8.7	--	--	12.3	15.9	3.6
Urinals	--	--	43	--	--	--	--	--	93	--	--	--
Audio/video equipment	4.9	--	--	7.8	10.1	2.3	4.9	--	--	6.9	9.0	2.0
Uninterruptible power supplies	5.7	--	--	9.1	11.8	2.8	6.3	--	--	9.0	11.6	2.7
Telephones	2.1	--	--	3.4	4.4	1.0	2.1	--	--	3.0	3.9	0.9
Water coolers	1.1	--	--	1.8	2.4	0.6	2.1	--	--	2.9	3.8	0.9
Ventilation fans	1.2	--	--	2.0	2.5	0.6	2.7	--	--	3.8	5.0	1.1
Portable electric spas	1.4	--	--	2.2	2.9	0.7	2.5	--	--	3.6	4.6	1.1
Hot food holding cabinets	1.0	--	--	1.6	2.1	0.5	2.2	--	--	3.2	4.1	1.0
Compressors	0.9	--	--	1.4	1.8	0.4	2.1	--	--	2.9	3.8	0.9
Total	148	166	2,342	244	306	80	183	344	4,177	275	336	96

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	15.9	31.0	234.9	no cost	0.0
Showerheads	9.7	19.0	144.0	no cost	0.0
Lawn spray sprinklers	14.1	26.7	174.7	7.9	1.1
Toilets	1.5	4.7	41.0	no cost	0.0
Computers and monitors	9.4	10.6	73.9	5.8	0.9
High CRI fluorescent lamps	9.7	3.5	53.2	4.6	1.1
Air purifiers	2.7	4.4	29.3	6.2	1.3
Pool pump replacement motors	1.2	0.0	6.9	18.6	0.3
Commercial fryers	3.9	10.8	70.0	12.2	0.9
Commercial dishwashers	1.4	4.0	27.0	24.3	0.5
Commercial steam cookers	1.1	2.7	18.4	22.7	0.5
Portable air conditioners	1.5	2.8	18.7	7.7	1.1
Urinals	0.5	1.2	8.4	no cost	0.0
Audio/video equipment	1.6	1.6	13.6	no cost	0.0
Uninterruptible power supplies	1.7	1.9	13.6	7.2	0.8
Telephones	0.6	0.7	5.6	no cost	0.0
Water coolers	0.3	0.6	4.7	no cost	0.0
Ventilation fans	0.4	0.9	6.5	no cost	0.0
Portable electric spas	0.4	0.8	6.3	no cost	0.0
Hot food holding cabinets	0.3	0.7	4.3	9.3	1.0
Compressors	0.2	0.5	3.5	11.1	0.9
Total	78	129	958	13.7	-

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: **Hawaii**

	Potential cumulative savings through 2035					
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Faucets	538	0.5	11.0	830.7	1,042.5	267.5
Showerheads	384	0.3	5.3	589.8	743.8	187.6
Lawn spray sprinklers	--	--	24.3	--	--	--
Toilets	--	--	3.1	--	--	--
Computers and monitors	448	--	--	678.6	877.9	205.9
High CRI fluorescent lamps	351	--	--	550.3	711.9	170.5
Air purifiers	156	--	--	234.6	303.5	69.4
Pool pump replacement motors	37	--	--	57.2	74.1	16.9
Commercial fryers	4	2.0	--	97.8	8.6	108.4
Commercial dishwashers	19	0.5	0.6	49.3	37.0	33.0
Commercial steam cookers	34	0.2	0.6	58.4	65.0	25.0
Portable air conditioners	93	--	--	139.6	180.6	41.3
Urinals	--	--	0.9	--	--	--
Audio/video equipment	65	--	--	98.5	127.5	29.2
Uninterruptible power supplies	82	--	--	123.7	160.0	38.1
Telephones	29	--	--	43.3	56.0	13.2
Water coolers	23	--	--	34.2	44.2	10.6
Ventilation fans	27	--	--	40.1	51.9	11.9
Portable electric spas	28	--	--	41.4	53.6	12.3
Hot food holding cabinets	22	--	--	33.4	43.2	10.3
Compressors	20	--	--	29.1	37.7	9.0
Total	2,359	4	46	3,730	4,619	1,260

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.