

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: **Iowa**

	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	33.7	332	1,188	32.9	7.6	33.0	61.2	593	2,134	53.6	14.9	57.6
Showerheads	24.0	227	565	23.1	5.4	23.0	43.7	413	1,027	37.8	10.6	40.6
Lawn spray sprinklers	--	--	244	--	--	--	--	--	398	--	--	--
Toilets	--	--	293	--	--	--	--	--	793	--	--	--
Computers and monitors	74.1	--	--	39.2	16.7	34.2	83.0	--	--	36.1	20.2	35.2
High CRI fluorescent lamps	98.4	--	--	52.1	22.2	45.9	33.8	--	--	14.7	8.2	14.2
Air purifiers	22.8	--	--	12.1	5.1	10.4	37.3	--	--	16.2	9.1	15.9
Pool pump replacement motors	14.0	--	--	7.4	3.2	6.4	0.0	--	--	0.0	0.0	0.0
Commercial fryers	0.4	201	--	9.4	0.1	10.9	1.0	440	--	20.4	0.2	23.8
Commercial dishwashers	1.9	44	62	3.0	0.4	3.2	4.5	106	148	6.8	1.1	7.5
Commercial steam cookers	3.4	18	58	2.6	0.8	2.5	7.4	39	125	5.0	1.8	5.2
Portable air conditioners	11.9	--	--	6.3	2.7	5.4	22.8	--	--	9.9	5.6	9.8
Urinals	--	--	94	--	--	--	--	--	204	--	--	--
Audio/video equipment	13.4	--	--	7.1	3.0	6.1	13.4	--	--	5.8	3.3	5.7
Uninterruptible power supplies	12.4	--	--	6.6	2.8	5.8	13.8	--	--	6.0	3.4	5.8
Telephones	7.2	--	--	3.8	1.6	3.3	7.2	--	--	3.1	1.8	3.1
Water coolers	4.3	--	--	2.3	1.0	2.0	7.9	--	--	3.4	1.9	3.3
Ventilation fans	3.4	--	--	1.8	0.8	1.5	7.4	--	--	3.2	1.8	3.2
Portable electric spas	3.7	--	--	1.9	0.8	1.7	6.7	--	--	2.9	1.6	2.9
Hot food holding cabinets	2.3	--	--	1.2	0.5	1.1	4.9	--	--	2.1	1.2	2.1
Compressors	5.0	--	--	2.6	1.1	2.3	11.8	--	--	5.1	2.9	4.9
Total	336	823	2,501	215	76	199	368	1,591	4,830	232	89	241

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	19.5	39.1	292.2	no cost	0.0
Showerheads	10.8	21.6	162.1	no cost	0.0
Lawn spray sprinklers	2.6	4.9	32.3	7.8	1.1
Toilets	3.2	9.8	86.3	no cost	0.0
Computers and monitors	7.2	7.9	30.5	1.8	2.7
High CRI fluorescent lamps	8.3	3.0	15.4	1.4	3.6
Air purifiers	2.5	4.0	16.7	2.1	3.5
Pool pump replacement motors	1.5	0.0	8.0	6.3	1.0
Commercial fryers	1.6	3.8	14.1	2.0	4.9
Commercial dishwashers	1.2	3.1	19.4	8.6	1.3
Commercial steam cookers	1.0	2.5	16.2	9.7	1.1
Portable air conditioners	1.3	2.5	11.7	2.6	3.2
Urinals	1.0	2.5	18.1	no cost	0.0
Audio/video equipment	1.5	1.5	12.6	no cost	0.0
Uninterruptible power supplies	1.1	1.2	5.3	2.1	2.5
Telephones	0.7	0.7	5.7	no cost	0.0
Water coolers	0.4	0.6	5.1	no cost	0.0
Ventilation fans	0.4	0.8	5.9	no cost	0.0
Portable electric spas	0.4	0.7	5.6	no cost	0.0
Hot food holding cabinets	0.2	0.4	1.9	2.6	3.5
Compressors	0.3	0.7	2.9	2.5	4.1
Total	67	111	768	6.7	-

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: Iowa

	Potential cumulative savings through 2035					
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Faucets	673	6.6	23.6	620.0	141.2	640.8
Showerheads	480	4.5	11.3	436.1	100.8	450.0
Lawn spray sprinklers	--	--	4.6	--	--	--
Toilets	--	--	6.7	--	--	--
Computers and monitors	1,074	--	--	520.4	228.1	481.8
High CRI fluorescent lamps	1,033	--	--	527.4	228.2	503.2
Air purifiers	429	--	--	205.2	90.1	186.3
Pool pump replacement motors	141	--	--	70.5	30.1	62.5
Commercial fryers	10	4.4	--	204.8	2.0	237.9
Commercial dishwashers	42	1.0	1.4	65.4	8.8	71.9
Commercial steam cookers	74	0.4	1.3	52.9	15.5	54.1
Portable air conditioners	245	--	--	116.9	51.5	106.5
Urinals	--	--	2.0	--	--	--
Audio/video equipment	178	--	--	86.7	38.0	78.1
Uninterruptible power supplies	179	--	--	86.6	37.9	81.7
Telephones	96	--	--	47.0	20.6	43.9
Water coolers	87	--	--	41.4	18.2	39.3
Ventilation fans	74	--	--	35.0	15.4	31.9
Portable electric spas	74	--	--	35.1	15.4	31.9
Hot food holding cabinets	49	--	--	23.3	10.3	22.1
Compressors	112	--	--	52.8	23.4	50.2
Total	5,049	17	51	3,227	1,076	3,174

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.