

## Appliance Standards Awareness Project

### 2023 State Appliance Standards Recommendations

#### Savings estimates for: Iowa

	Potential annual savings in 2030						Potential annual savings in 2040					
	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NO <sub>x</sub> (tons)	SO <sub>2</sub> (tons)	CO <sub>2</sub> (thous. MT)	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NO <sub>x</sub> (tons)	SO <sub>2</sub> (tons)	CO <sub>2</sub> (thous. MT)
Air purifiers	43.4	--	--	15.6	10.3	16.7	71.1	--	--	23.1	13.9	27.1
Commercial dishwashers	2.0	49	68	2.9	0.5	3.3	4.8	117	163	6.8	0.9	8.0
Commercial fryers	0.8	252	--	11.7	0.2	13.6	1.6	549	--	25.4	0.3	29.8
Commercial ovens	2.0	32	--	2.2	0.5	2.4	4.4	71	--	4.7	0.9	5.4
Commercial steam cookers	1.3	10	29	0.9	0.3	1.0	2.8	22	62	1.9	0.5	2.2
Electric vehicle supply equipment	4.1	--	--	1.5	1.0	1.6	27.4	--	--	8.9	5.4	10.4
Faucets	20.8	231	826	17.9	4.9	20.2	37.8	419	1,500	31.3	7.4	36.6
Gas fireplaces	--	79	--	3.6	--	4.2	--	214	--	9.7	--	11.4
High CRI fluorescent lamps	15.8	--	--	5.7	3.8	5.5	4.2	--	--	1.4	0.8	1.6
Portable electric spas	18.9	--	--	6.8	4.5	7.3	31.8	--	--	10.3	6.2	12.1
Residential ventilating fans	3.6	--	--	1.3	0.8	1.4	9.7	--	--	3.2	1.9	3.7
Showerheads	18.0	198	487	15.4	4.3	17.4	32.7	361	886	27.0	6.4	31.6
Spray sprinkler bodies	--	--	498	--	--	--	--	--	905	--	--	--
Toilets (water closets)	--	--	183	--	--	--	--	--	486	--	--	--
Urinals	--	--	35	--	--	--	--	--	76	--	--	--
Water coolers	6.9	--	--	2.5	1.6	2.4	12.5	--	--	4.1	2.4	4.7
<b>Total</b>	<b>137</b>	<b>851</b>	<b>2,125</b>	<b>88</b>	<b>33</b>	<b>97</b>	<b>241</b>	<b>1,753</b>	<b>4,078</b>	<b>158</b>	<b>47</b>	<b>185</b>

Assuming a compliance date of 2025 for all the recommended standards. Totals may not sum due to rounding. 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.

## Savings estimates for: Iowa

	Potential annual utility bill savings (million 2021\$)		Net present value savings (million 2021\$)	Benefit-cost ratio	Payback period (years)
	In 2030	In 2040			
Air purifiers	5.2	8.6	55.9	5.7	1.3
Commercial dishwashers	1.6	4.3	27.3	10.0	1.1
Commercial fryers	2.0	4.6	21.7	2.9	3.5
Commercial ovens	0.4	1.0	1.3	1.2	7.9
Commercial steam cookers	0.6	1.6	10.2	11.2	0.9
Electric vehicle supply equipment	0.5	3.3	20.1	no cost	0.0
Faucets	17.6	35.8	266.8	no cost	0.0
Gas fireplaces	0.8	2.2	13.5	9.7	1.2
High CRI fluorescent lamps	1.5	0.4	6.2	2.7	2.3
Portable electric spas	2.2	3.8	26.1	7.3	0.9
Residential ventilating fans	0.4	1.2	8.1	no cost	0.0
Showerheads	11.7	23.5	176.0	no cost	0.0
Spray sprinkler bodies	7.8	16.3	111.0	13.4	0.7
Toilets (water closets)	2.8	8.7	74.9	no cost	0.0
Urinals	0.5	1.4	9.7	no cost	0.0
Water coolers	0.6	1.1	8.8	no cost	0.0
<b>Total</b>	<b>56</b>	<b>118</b>	<b>838</b>	<b>17.1</b>	<b>-</b>

Assuming a compliance date of 2025 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 2025 and 2040. 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 2040 for the package of recommended standards divided by the present value of the total additional costs. 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.

## Cumulative savings estimates for: Iowa

	Potential cumulative savings through 2040					
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO <sub>x</sub> (tons)	SO <sub>2</sub> (tons)	CO <sub>2</sub> (thous. MT)
Air purifiers	817	--	--	275.1	168.1	308.7
Commercial dishwashers	45	1.1	1.5	64.9	9.2	75.4
Commercial fryers	16	5.5	--	254.6	3.4	298.1
Commercial ovens	44	0.7	--	47.0	9.1	54.4
Commercial steam cookers	28	0.2	0.6	19.5	5.7	22.5
Electric vehicle supply equipment	155	--	--	51.9	31.4	58.9
Faucets	416	4.6	16.5	348.7	85.3	401.8
Gas fireplaces	--	1.8	--	82.6	--	96.8
High CRI fluorescent lamps	158	--	--	53.5	33.5	59.8
Portable electric spas	361	--	--	121.4	74.2	136.2
Residential ventilating fans	83	--	--	27.8	16.9	31.3
Showerheads	359	4.0	9.7	300.8	73.8	346.6
Spray sprinkler bodies	--	--	10.0	--	--	--
Toilets (water closets)	--	--	4.2	--	--	--
Urinals	--	--	0.8	--	--	--
Water coolers	137	--	--	46.2	28.2	51.8
<b>Total</b>	<b>2,620</b>	<b>18</b>	<b>43</b>	<b>1,694</b>	<b>539</b>	<b>1,942</b>

Assuming a compliance date of 2025 for all the recommended standards. Totals may not sum due to rounding. 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.