

## Appliance Standards Awareness Project

### 2023 State Appliance Standards Recommendations

#### Savings estimates for: [Arizona](#)

	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	90.1	--	--	18.9	6.3	17.4	147.4	--	--	8.4	3.8	18.2
Commercial dishwashers	4.5	109	152	5.9	0.3	6.7	10.7	262	365	12.5	0.3	15.3
Commercial fryers	1.7	565	--	25.9	0.1	30.3	3.7	1,232	--	56.0	0.1	65.9
Commercial ovens	4.5	73	--	4.3	0.3	4.8	9.9	159	--	7.8	0.3	9.7
Commercial steam cookers	2.9	23	64	1.6	0.2	1.8	6.3	50	140	2.6	0.2	3.5
Electric vehicle supply equipment	8.5	--	--	1.8	0.6	1.7	56.8	--	--	3.2	1.5	7.0
Faucets	73.8	382	1,893	32.8	5.2	34.6	134.2	693	3,438	39.1	3.5	53.4
Gas fireplaces	--	57	--	2.6	--	3.0	--	155	--	7.0	--	8.3
High CRI fluorescent lamps	31.6	--	--	6.6	2.2	6.2	8.5	--	--	0.5	0.2	1.1
Portable electric spas	32.9	--	--	6.9	2.3	6.4	55.4	--	--	3.2	1.4	6.8
Residential ventilating fans	7.4	--	--	1.6	0.5	1.4	20.2	--	--	1.2	0.5	2.5
Showerheads	63.8	328	1,116	28.2	4.5	29.8	116.0	597	2,029	33.7	3.0	46.0
Spray sprinkler bodies	--	--	13,542	--	--	--	--	--	24,622	--	--	--
Toilets (water closets)	--	--	417	--	--	--	--	--	1,109	--	--	--
Urinals	--	--	78	--	--	--	--	--	170	--	--	--
Water coolers	17.2	--	--	3.6	1.2	3.4	31.3	--	--	1.8	0.8	4.0
<b>Total</b>	<b>339</b>	<b>1,537</b>	<b>17,262</b>	<b>141</b>	<b>24</b>	<b>147</b>	<b>600</b>	<b>3,148</b>	<b>31,872</b>	<b>177</b>	<b>16</b>	<b>242</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: Arizona

	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	10.8	18.4	118.9	5.8	1.3
Commercial dishwashers	3.9	10.3	66.1	10.7	1.0
Commercial fryers	4.9	11.4	56.8	3.2	3.2
Commercial ovens	1.0	2.3	4.1	1.3	7.2
Commercial steam cookers	1.5	3.7	24.5	12.0	0.9
Electric vehicle supply equipment	1.0	7.1	43.8	no cost	0.0
Faucets	46.3	93.9	700.7	no cost	0.0
Gas fireplaces	0.9	2.5	16.5	15.7	0.8
High CRI fluorescent lamps	3.0	0.9	13.0	2.8	2.1
Portable electric spas	3.9	6.9	44.4	5.7	1.2
Residential ventilating fans	0.9	2.5	17.4	no cost	0.0
Showerheads	31.4	63.1	472.3	no cost	0.0
Spray sprinkler bodies	224.8	471.6	3232.6	14.2	0.7
Toilets (water closets)	6.9	21.2	182.1	no cost	0.0
Urinals	1.3	3.2	23.2	no cost	0.0
Water coolers	1.6	2.9	22.7	no cost	0.0
<b>Total</b>	<b>344</b>	<b>722</b>	<b>5,039</b>	<b>16.0</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: Arizona

	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	1,696	--	--	211.8	76.4	269.1
Commercial dishwashers	100	2.5	3.4	123.4	4.2	149.0
Commercial fryers	37	12.3	--	562.6	1.6	660.9
Commercial ovens	99	1.6	--	83.6	4.2	102.2
Commercial steam cookers	63	0.5	1.4	30.0	2.7	37.9
Electric vehicle supply equipment	322	--	--	30.6	11.7	46.4
Faucets	1,476	7.6	37.8	525.2	65.0	637.1
Gas fireplaces	--	1.3	--	59.9	--	70.2
High CRI fluorescent lamps	318	--	--	52.0	17.8	63.3
Portable electric spas	628	--	--	78.1	28.1	99.5
Residential ventilating fans	172	--	--	19.4	7.1	26.3
Showerheads	1,276	6.6	22.3	452.6	56.2	549.1
Spray sprinkler bodies	--	--	270.8	--	--	--
Toilets (water closets)	--	--	9.5	--	--	--
Urinals	--	--	1.7	--	--	--
Water coolers	344	--	--	41.9	15.2	62.7
<b>Total</b>	<b>6,531</b>	<b>32</b>	<b>347</b>	<b>2,271</b>	<b>290</b>	<b>2,774</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.