## **Appliance Standards Awareness Project**

## **2024 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)	NOx (tons)	SO <sub>2</sub> (tons)	CO <sub>2</sub> (thous. MT)	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NOx (tons)	SO <sub>2</sub> (tons)	CO <sub>2</sub> (thous. MT)
Commercial battery chargers	2.7			0.3	0.04	0.3	7.5			0.2	0.04	0.5
Commercial dishwashers	6.1	151	210	7.5	0.1	8.6	17.9	441	614	20.6	0.1	24.6
Commercial fryers	1.7	564		25.8	0.03	30.2	4.5	1,505		68.4	0.03	80.3
Commercial ovens	4.5	71		3.8	0.1	4.3	11.9	190		9.0	0.1	10.9
Commercial steam cookers	2.8	22	63	1.3	0.05	1.5	7.5	60	167	3.0	0.05	3.7
Faucets	29.3	153	755	10.3	0.5	11.3	65.1	337	1,670	17.4	0.4	22.4
Gas fireplaces		59		2.7		3.1		189		8.6		10.1
High CRI fluorescent lamps	33.5			3.9	0.5	3.6	12.2			0.4	0.1	0.8
Irrigation controllers			6,015						19,382			
Portable electric spas	29.8			3.4	0.5	3.2	58.7			1.9	0.4	4.0
Residential ventilating fans	2.3			0.3	0.04	0.2	7.3			0.2	0.04	0.5
Showerheads	37.1	191	649	12.9	0.6	14.1	82.5	424	1,442	21.9	0.5	28.2
Spray sprinkler bodies			11,068						24,595	-		
Toilets (water closets)		-	276						838			
Urinals			62						166			
Water coolers	21.2	-		2.5	0.3	2.3	47.2		-	1.6	0.3	3.2
Total	171	1,211	17,990	75	3	83	322	3,146	41,619	153	2	189

Assuming a compliance date of 2026 for all the recommended standards. 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. We accounted for the interaction effects among irrigation controllers and spray sprinkler bodies in calculating the total water savings. The total potential water savings are thus smaller than the sum of the individual products.

## Savings estimates for: Arizona

		nual utility bill llion 2022\$)	Net present value savings	Payback period	
	In 2030	In 2040	(million 2022\$)	(years)	
Commercial battery chargers	0.2	0.5	3.7	2.8	
Commercial dishwashers	5.3	17.8	152.8	1.1	
Commercial fryers	5.1	15.5	102.2	3.0	
Commercial ovens	1.0	3.0	6.4	7.4	
Commercial steam cookers	1.5	4.5	39.7	0.9	
Faucets	18.4	46.4	468.1	0.0	
Gas fireplaces	1.0	3.4	29.6	0.7	
High CRI fluorescent lamps	2.9	1.2	12.9	2.3	
Irrigation controllers	99.5	370.1	3,392.8	0.7	
Portable electric spas	3.5	7.6	63.5	1.2	
Residential ventilating fans	0.3	0.9	8.9	0.0	
Showerheads	18.2	45.9	462.1	0.0	
Spray sprinkler bodies	183.1	469.7	4,397.9	0.7	
Toilets (water closets)	4.6	16.0	199.3	0.0	
Urinals	1.0	3.2	31.1	0.0	
Water coolers	1.8	4.2	42.3	0.0	
Total	329	871	8,946	_	

Assuming a compliance date of 2026 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 2026 and 2050. 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. We accounted for the interaction effects among irrigation controllers and spray sprinkler bodies in calculating the total savings. The totals are thus smaller than the sum of the individual products.

## **Cumulative savings estimates for: Arizona**

	Potential cumulative savings through 2050								
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NOx (tons)	SO <sub>2</sub> (tons)	CO <sub>2</sub> (thous. MT)	Utility bill savings (million 2022\$)		
Commercial battery chargers	140			5.6	1.0	10.5	10.3		
Commercial dishwashers	330	8.1	11.3	381.0	2.3	455.8	328.4		
Commercial fryers	86	28.6		1,299.5	0.6	1,525.4	290.7		
Commercial ovens	226	3.6		173.1	1.6	209.2	56.0		
Commercial steam cookers	143	1.1	3.2	57.4	1.0	71.2	85.3		
Faucets	1,303	6.7	33.4	359.3	9.2	456.1	928.9		
Gas fireplaces		3.4		155.4		182.1	61.3		
High CRI fluorescent lamps	403			24.9	4.2	34.0	36.8		
Irrigation controllers			350.9			-	6,808.8		
Portable electric spas	1,196			50.4	8.7	90.5	154.5		
Residential ventilating fans	132			5.2	0.9	9.9	17.3		
Showerheads	1,651	8.5	28.8	451.9	11.7	573.9	917.3		
Spray sprinkler bodies			491.9		-		9,429.4		
Toilets (water closets)			17.5			-	341.2		
Urinals			3.2				60.8		
Water coolers	943			38.8	6.7	70.8	84.2		
Total	6,552	60	817	3,003	48	3,689	17,210		

Assuming a compliance date of 2026 for all the recommended standards. 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. We accounted for the interaction effects among irrigation controllers and spray sprinkler bodies in calculating the total water and utility bill savings. The total potential water and utility bill savings are thus smaller than the sum of the individual products.