## **Appliance Standards Awareness Project**

## 2024 State Appliance Standards Recommendations

Savings estimates for: Alabama

	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	4.0			0.1	0.3	0.7	12.1			0.2	0.8	2.0
Commercial dishwashers	4.3	105	146	4.9	0.3	6.4	12.5	306	427	14.1	0.9	18.3
Commercial fryers	1.2	392		17.8	0.1	21.1	3.1	1,046		47.5	0.22	56.1
Commercial ovens	3.1	50		2.3	0.2	3.2	8.3	132		6.2	0.6	8.4
Commercial steam cookers	2.0	16	44	0.8	0.1	1.2	5.2	42	116	2.0	0.4	3.1
Faucets	29.2	60	533	3.6	2.0	8.7	65.0	132	1,180	7.2	4.5	17.6
Gas fireplaces		88		4.0		4.7		283		12.8		15.0
High CRI fluorescent lamps	19.0			0.5	1.3	3.5	7.4	-		0.1	0.5	1.2
Irrigation controllers			893						2,878			
Portable electric spas	11.6			0.3	0.8	2.2	22.8	-		0.4	1.6	3.7
Residential ventilating fans	1.6			0.04	0.1	0.3	5.2			0.1	0.4	0.8
Showerheads	37.0	74	458	4.4	2.5	10.9	82.3	165	1,019	9.1	5.7	22.2
Spray sprinkler bodies			1,643						3,652			
Toilets (water closets)			194					-	589			
Urinals			43						116			
Water coolers	15.5			0.4	1.1	2.9	34.4	-		0.7	2.4	5.6
Total	128	785	3,790	39	9	66	258	2,107	8,898	100	18	154

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: Alabama

		nual utility bill lion 2022\$)	Net present value savings	Payback period	
	In 2030	In 2040	(million 2022\$)	(years)	
Commercial battery chargers	0.3	0.8	5.8	2.1	
Commercial dishwashers	3.6	12.0	102.0	1.1	
Commercial fryers	5.0	14.4	106.0	2.3	
Commercial ovens	0.9	2.7	10.2	5.7	
Commercial steam cookers	1.0	2.9	25.4	1.0	
Faucets	11.6	28.8	289.2	0.0	
Gas fireplaces	1.4	5.2	45.0	0.8	
High CRI fluorescent lamps	2.0	0.9	10.0	1.9	
Irrigation controllers	11.7	43.7	395.0	0.8	
Portable electric spas	1.4	3.0	24.1	1.2	
Residential ventilating fans	0.2	0.7	6.2	0.0	
Showerheads	11.8	29.3	292.7	0.0	
Spray sprinkler bodies	21.6	55.4	508.0	0.9	
Toilets (water closets)	2.5	8.9	111.5	0.0	
Urinals	0.6	1.8	17.2	0.0	
Water coolers	1.6	3.8	37.1	0.0	
Total	75	198	1,930	_	

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: Alabama**

	Potential cumulative savings through 2050								
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO <sub>x</sub> (tons)	SO <sub>2</sub> (tons)	CO <sub>2</sub> (thous. MT)	Utility bill savings (million 2022\$)		
Commercial battery chargers	223			4.4	14.3	34.2	14.8		
Commercial dishwashers	229	5.6	7.9	260.2	14.7	334.9	220.3		
Commercial fryers	60	19.9		902.1	3.8	1,065.0	270.5		
Commercial ovens	157	2.5		117.2	10.1	157.8	50.2		
Commercial steam cookers	99	0.8	2.2	37.8	6.4	57.3	55.0		
Faucets	1,299	2.7	23.6	146.5	84.4	342.5	573.7		
Gas fireplaces		5.1		232.2	-	272.2	92.9		
High CRI fluorescent lamps	232			6.1	17.0	40.0	25.6		
Irrigation controllers			52.1				803.6		
Portable electric spas	464			9.5	30.3	72.4	59.4		
Residential ventilating fans	94			1.8	6.0	14.3	12.0		
Showerheads	1,646	3.3	20.4	183.2	106.9	431.2	580.9		
Spray sprinkler bodies			73.0				1,112.8		
Toilets (water closets)			12.3			-	190.8		
Urinals			2.2				33.6		
Water coolers	687			13.9	44.6	106.6	73.6		
Total	5,191	40	175	1,915	339	2,928	3,886		

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.