### **Appliance Standards Awareness Project**

# 2023 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)	CO2 (thous. MT)	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NOx (tons)	SO2 (tons)	CO2 (thous. MT)
Air purifiers	64.4			3.1	5.5	19.5	105.3			2.8	8.4	22.6
Commercial dishwashers	3.1	77	107	3.6	0.3	5.2	7.5	184	256	8.5	0.6	11.5
Commercial fryers	1.2	397		18.0	0.1	21.5	2.6	865		39.3	0.21	46.6
Commercial ovens	3.2	51		2.5	0.3	3.8	7.0	112		5.2	0.6	7.5
Commercial steam cookers	2.0	16	45	0.8	0.2	1.6	4.4	35	98	1.7	0.4	2.9
Electric vehicle supply equipment	6.1			0.3	0.5	1.9	40.6			1.1	3.2	8.7
Faucets	71.1	145	1,291	9.9	6.0	29.2	129.2	262	2,345	15.3	10.3	41.6
Gas fireplaces		71		3.2		3.8		194		8.8		10.3
High CRI fluorescent lamps	27.4			1.3	2.3	9.4	6.9			0.2	0.6	1.5
Portable electric spas	15.3			0.7	1.3	4.6	25.8			0.7	2.1	5.5
Residential ventilating fans	5.3			0.3	0.4	1.6	14.4			0.4	1.2	3.1
Showerheads	61.4	124	761	8.5	5.2	25.2	111.7	225	1,384	13.1	8.9	35.9
Spray sprinkler bodies			2,014						3,661			
Toilets (water closets)			286						761			
Urinals			55						119			
Water coolers	12.6			0.6	1.1	4.4	22.9			0.6	1.8	5.2
Total	273	881	4,559	53	23	132	478	1,877	8,625	98	38	203

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: Alabama

		nual utility bill lion 2021\$)	Net present		Payback
	In 2030	In 2040	value savings (million 2021\$)	Benefit-cost ratio	period (years)
Air purifiers	8.5	13.5	91.3	6.1	1.1
Commercial dishwashers	2.9	7.6	49.1	11.3	1.0
Commercial fryers	5.6	12.7	74.8	5.1	2.0
Commercial ovens	1.1	2.3	8.2	1.9	5.0
Commercial steam cookers	1.1	2.6	17.0	11.8	0.8
Electric vehicle supply equipment	0.8	5.2	31.9	no cost	0.0
Faucets	30.1	59.6	448.8	no cost	0.0
Gas fireplaces	1.3	3.7	24.3	18.3	0.7
High CRI fluorescent lamps	3.1	0.8	14.0	3.3	1.8
Portable electric spas	2.0	3.3	21.9	5.7	1.1
Residential ventilating fans	0.7	1.9	13.0	no cost	0.0
Showerheads	21.0	41.1	311.0	no cost	0.0
Spray sprinkler bodies	28.3	59.3	400.7	12.0	0.8
Toilets (water closets)	4.0	12.3	105.5	no cost	0.0
Urinals	0.8	1.9	13.8	no cost	0.0
Water coolers	1.4	2.4	19.4	no cost	0.0
Total	113	230	1,644	17.4	_

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: Alabama

	Potential cumulative savings through 2040							
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NOx (tons)	SO2 (tons)	CO2 (thous. MT)		
Air purifiers	1,211			46.8	102.8	321.0		
Commercial dishwashers	71	1.7	2.4	81.2	5.9	112.7		
Commercial fryers	26	8.7		393.2	2.2	467.3		
Commercial ovens	70	1.1		53.2	5.9	79.8		
Commercial steam cookers	44	0.4	1.0	17.6	3.7	31.7		
Electric vehicle supply equipment	230			7.6	19.0	56.3		
Faucets	1,421	2.9	25.8	185.0	120.4	527.2		
Gas fireplaces		1.7		74.8	0.0	87.7		
High CRI fluorescent lamps	272			12.7	24.1	88.1		
Portable electric spas	292			11.4	24.9	77.5		
Residential ventilating fans	123			4.5	10.3	31.5		
Showerheads	1,228	2.5	15.2	158.9	104.1	454.6		
Spray sprinkler bodies			40.3					
Toilets (water closets)			6.6					
Urinals			1.2					
Water coolers	252			9.6	21.3	74.9		
Total	5,241	19	92	1,057	445	2,410		

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.