

## Appliance Standards Awareness Project

### 2023 State Appliance Standards Recommendations

#### Savings estimates for: North Carolina

	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	137.4	--	--	13.3	17.3	44.8	224.9	--	--	13.9	21.5	62.0
Commercial dishwashers	6.5	160	222	7.9	0.8	10.2	15.6	383	533	18.3	1.5	25.1
Commercial fryers	2.5	824	--	37.6	0.3	44.4	5.4	1,798	--	81.8	0.5	97.2
Commercial ovens	6.6	106	--	5.5	0.8	7.4	14.5	232	--	11.4	1.4	16.7
Commercial steam cookers	4.2	34	94	1.9	0.5	2.9	9.2	73	204	3.9	0.9	6.7
Electric vehicle supply equipment	13.0	--	--	1.3	1.6	4.2	86.6	--	--	5.4	8.3	23.9
Faucets	154.6	284	2,735	27.9	19.5	65.5	281.1	513	4,966	40.6	26.9	104.8
Gas fireplaces	--	403	--	18.3	--	21.4	--	1,100	--	49.8	--	58.4
High CRI fluorescent lamps	62.8	--	--	6.1	7.9	17.0	15.5	--	--	1.0	1.5	4.6
Portable electric spas	44.2	--	--	4.3	5.6	14.4	74.3	--	--	4.6	7.1	20.5
Residential ventilating fans	11.3	--	--	1.1	1.4	3.7	30.8	--	--	1.9	3.0	8.5
Showerheads	133.6	242	1,612	23.9	16.9	56.4	242.9	441	2,931	35.0	23.3	90.4
Spray sprinkler bodies	--	--	2,730	--	--	--	--	--	4,964	--	--	--
Toilets (water closets)	--	--	603	--	--	--	--	--	1,605	--	--	--
Urinals	--	--	113	--	--	--	--	--	248	--	--	--
Water coolers	27.1	--	--	2.6	3.4	7.2	49.3	--	--	3.1	4.7	15.1
<b>Total</b>	<b>604</b>	<b>2,053</b>	<b>8,110</b>	<b>152</b>	<b>76</b>	<b>300</b>	<b>1,050</b>	<b>4,539</b>	<b>15,451</b>	<b>271</b>	<b>101</b>	<b>534</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: North Carolina

	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	15.8	25.6	167.3	5.4	1.3
Commercial dishwashers	5.3	13.9	88.1	9.9	1.1
Commercial fryers	8.5	19.4	103.8	3.7	2.6
Commercial ovens	1.6	3.6	7.2	1.4	6.8
Commercial steam cookers	2.0	4.8	31.3	10.6	1.0
Electric vehicle supply equipment	1.5	9.9	60.7	no cost	0.0
Faucets	60.2	120.2	902.4	no cost	0.0
Gas fireplaces	5.8	16.6	106.2	14.4	0.8
High CRI fluorescent lamps	5.2	1.4	20.2	2.5	2.4
Portable electric spas	5.1	8.5	55.3	5.5	1.1
Residential ventilating fans	1.3	3.5	24.5	no cost	0.0
Showerheads	41.5	81.8	617.1	no cost	0.0
Spray sprinkler bodies	38.3	80.4	543.3	12.0	0.8
Toilets (water closets)	8.5	26.0	222.8	no cost	0.0
Urinals	1.6	4.0	28.6	no cost	0.0
Water coolers	2.2	3.8	30.1	no cost	0.0
<b>Total</b>	<b>204</b>	<b>423</b>	<b>3,009</b>	<b>16.7</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: North Carolina

	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	2,586	--	--	206.8	295.3	794.3
Commercial dishwashers	147	3.6	5.0	174.8	16.5	237.7
Commercial fryers	54	18.0	--	819.2	6.1	972.1
Commercial ovens	145	2.3	--	116.6	16.4	169.0
Commercial steam cookers	92	0.7	2.0	40.4	10.4	67.8
Electric vehicle supply equipment	492	--	--	37.0	53.5	147.6
Faucets	3,092	5.7	54.7	502.6	351.9	1,248.8
Gas fireplaces	--	9.3	--	423.6	--	496.5
High CRI fluorescent lamps	621	--	--	52.1	74.0	193.0
Portable electric spas	843	--	--	67.2	96.1	258.5
Residential ventilating fans	262	--	--	20.5	29.4	79.7
Showerheads	2,672	4.8	32.2	432.5	304.1	1,077.1
Spray sprinkler bodies	--	--	54.6	--	--	--
Toilets (water closets)	--	--	13.8	--	--	--
Urinals	--	--	2.5	--	--	--
Water coolers	543	--	--	43.2	61.8	171.4
<b>Total</b>	<b>11,547</b>	<b>44</b>	<b>165</b>	<b>2,936</b>	<b>1,315</b>	<b>5,913</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.