

## Appliance Standards Awareness Project 2020 State Appliance Standards Recommendations

Assumptions for national annual shipments, average lifetime, per-unit savings, per-unit incremental cost, and percentage of shipments already meeting standard level

Product	National annual shipments in 2022 (million)	Average lifetime (years)	Per-unit annual savings*	Units	% savings relative to baseline products	Per-unit incremental cost (2018\$)	Adjusted market share of products already meeting standard level**
Air compressors	0.03	13.0	4,761	kWh	3%	1,112	72%
Air purifiers	5.2	9.0	214	kWh	40%	0	35%
Commercial dishwashers	0.1	13.2	--	--	--	1,102	59%
<i>electricity</i>	--	--	1,385	kWh	20%	--	--
<i>natural gas</i>	--	--	33	MMBtu	38%	--	--
<i>water</i>	--	--	45,808	gallons	38%	--	--
Commercial fryers	0.1	12.0	--	--	--	1,855	29%
<i>electricity</i>	--	--	163	kWh	17%	--	--
<i>natural gas</i>	--	--	46	MMBtu	31%	--	--
Commercial hot-food holding cabinets	0.05	12.0	1,730	kWh	53%	940	21%
Commercial ovens	0.07	12.0	--	--	--	232	60%
<i>electricity</i>	--	--	945	kWh	18%	--	--
<i>gas</i>	--	--	9	MMBtu	19%	--	--
Commercial steam cookers	0.01	12.0	--	--	--	3,154	53%
<i>electricity</i>	--	--	10,927	kWh	55%	--	--
<i>natural gas</i>	--	--	40	MMBtu	54%	--	--
<i>water</i>	--	--	162,060	gallons	93%	--	--
Computers and computer monitors	87.6	--	--	--	--	--	--
<i>computers</i>	67.4	--	--	--	--	--	--
<i>desktops</i>	16.7	5.0	--	--	37%	--	**
<i>tier 1</i>	--	--	30	kWh	--	10	--
<i>tier 2</i>	--	--	19	kWh	--	5	--
<i>notebooks</i>	48.9	4.0	4	kWh	11%	1	**
<i>small-scale servers</i>	0.5	5.0	24	kWh	8%	14	**
<i>workstations</i>	1.2	5.0	37	kWh	8%	14	**
<i>monitors</i>	20.2	7.0	28	kWh	46%	5	**
Electric vehicle supply equipment	0.8	16.0	30	kWh	40%	0	7%
Faucets	49.6	--	--	--	--	--	--
<i>residential lavatory</i>	30.5	10.0	--	--	--	0	84%
<i>electricity</i>	--	--	19	kWh	24%	--	--
<i>natural gas</i>	--	--	0.14	MMBtu	24%	--	--
<i>water</i>	--	--	566	gallons	24%	--	--
<i>kitchen</i>	15.6	10.0	--	--	--	0	55%
<i>electricity</i>	--	--	75	kWh	17%	--	--
<i>natural gas</i>	--	--	0.55	MMBtu	17%	--	--

Product	National annual shipments in 2022 (million)	Average lifetime (years)	Per-unit annual savings*	Units	% savings relative to baseline products	Per-unit incremental cost (2018\$)	Adjusted market share of products already meeting standard level**
<i>water</i>	--	--	2,214	gallons	17%	--	--
<i>public</i>	3.5	3.0	--	--	--	0	98%
<i>electricity</i>	--	--	--	--	--	--	--
<i>natural gas</i>	--	--	2.63	MMBtu	77%	--	--
<i>water</i>	--	--	6,153	gallons	77%	--	--
High CRI fluorescent lamps	14.2	--	--	--	--	--	--
<i>residential</i>	4.3	15.0	13	kWh	52%	9	**
<i>commercial</i>	9.9	6.7	69	kWh	56%	14	**
Portable air conditioners	1.4	10.5	223	kWh	23%	80	37%
Portable electric spas	1.1	--	--	--	--	--	--
<i>standard/exercise/combination</i>	1.0	10.0	464	kWh	10%	113	76%
<i>inflatable</i>	0.1	3.0	1,311	kWh	47%	101	0%
Residential ventilating fans	8.0	10.0	8	kWh	61%	0	81%
Showerheads	16.5	10.0	--	--	--	0	73%
<i>electricity</i>	--	--	108	kWh	19%	--	--
<i>natural gas</i>	--	--	0.80	MMBtu	19%	--	--
<i>water</i>	--	--	2,179	gallons	19%	--	--
Spray sprinkler bodies	85.5	--	--	--	--	--	--
<i>residential</i>	65.2	10.0	524	gallons	18%	5	10%
<i>commercial</i>	20.4	10.0	524	gallons	18%	5	10%
Toilets (water closets)	16.5	--	--	--	--	--	--
<i>residential</i>	13.0	25.0	861	gallons	20%	0	73%
<i>commercial</i>	3.5	12.0	488	gallons	20%	0	48%
Uninterruptible power supplies	10.8	--	--	--	--	--	--
<i>residential</i>	1.1	6.1	64	kWh	30%	15	51%
<i>commercial</i>	9.7	6.1	64	kWh	30%	14	51%
Urinals	0.9	12.0	2,340	gallons	50%	0	73%
Water coolers	2.5	10.0	92	kWh	30%	0	62%

\*For portable electric spas (standard/exercise/combination), the per-unit savings take into account sales that already meet the standard.

\*\*We used the estimated current market share of compliant products in the calculation of total savings and costs with the following exceptions: For computers and computer monitors, the per-unit annual savings and % savings take into account sales that already meet the standard (i.e., savings are relative to the existing base case efficiency, not the least-efficient products available), so a further adjustment for the current market share of compliant products is not needed. For high CRI fluorescent lamps, the estimated shipments include only T12 lamps (i.e., they do not include shipments of compliant replacement options such as widely-available LED tube lamps), so accounting for the current market share of compliant products is also not needed. For the plumbing products (faucets, showerheads, toilets, and urinals) and portable air conditioners, we adjusted the estimates of the current market shares of compliant products to take into account that a significant portion of current models have efficiency levels that fall in between the baseline levels and the recommended standard levels. Adjusting the market shares avoids overestimating potential savings.