

## Appliance Standards Awareness Project

### 2019 State Appliance Standards Recommendations

#### Savings estimates for: [Hawaii](#)

	Potential annual savings in 2025						Potential annual savings in 2035					
	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 compressors	0.7	--	--	1.6	1.7	0.4	2.0	--	--	4.5	5.5	1.2
Air purifiers	5.7	--	--	12.7	13.6	3.5	11.5	--	--	25.1	30.5	6.6
Commercial dishwashers	0.7	17	24	2.4	1.7	1.3	2.1	50	70	6.9	5.7	3.9
Commercial fryers	0.1	65	--	3.2	0.3	3.5	0.3	172	--	8.5	0.8	9.3
Commercial hot-food holding cabinets	0.8	--	--	1.7	1.8	0.4	2.0	--	--	4.4	5.4	1.2
Commercial steam cookers	1.3	7	22	3.1	3.0	1.1	3.4	18	58	8.2	9.0	3.0
Computers and computer monitors	24.9	--	--	55.0	59.0	14.8	31.2	--	--	68.4	83.1	18.2
Faucets	17.4	17	357	39.4	41.4	11.4	38.7	36	786	86.4	103.1	24.3
High CRI fluorescent lamps	8.2	--	--	18.2	19.5	4.9	2.7	--	--	5.9	7.2	1.6
Portable air conditioners	2.9	--	--	6.5	7.0	1.8	8.8	--	--	19.2	23.4	5.1
Portable electric spas	1.1	--	--	2.5	2.7	0.7	2.5	--	--	5.6	6.8	1.5
Residential ventilating fans	0.7	--	--	1.6	1.7	0.4	1.6	--	--	3.4	4.2	0.9
Showerheads	12.3	11	170	27.8	29.2	8.0	27.4	23	377	61.0	72.8	17.1
Spray sprinkler bodies	--	--	1,053	--	--	--	--	--	2,107	--	--	--
Toilets (water closets)	--	--	95	--	--	--	--	--	298	--	--	--
Uninterruptible power supplies	4.7	--	--	10.5	11.2	2.8	6.4	--	--	14.0	17.0	3.8
Urinals	--	--	13	--	--	--	--	--	34	--	--	--
Water coolers	0.8	--	--	1.7	1.9	0.5	1.7	--	--	3.8	4.6	1.0
<b>Total</b>	<b>82</b>	<b>116</b>	<b>1,734</b>	<b>188</b>	<b>196</b>	<b>56</b>	<b>142</b>	<b>300</b>	<b>3,730</b>	<b>325</b>	<b>379</b>	<b>99</b>

Assuming a compliance date of 2021 for almost all the recommended standards. Totals may not sum due to rounding.

	Potential annual utility bill savings (million 2017\$)		Net present value savings (million 2017\$)	Benefit-cost ratio	Payback period (years)
	In 2025	In 2035			
Air compressors	0.2	0.5	3.0	9.9	1.0
Air purifiers	1.8	3.8	23.9	6.2	1.2
Commercial dishwashers	1.2	3.7	23.8	21.3	0.6
Commercial fryers	2.7	7.5	44.6	9.5	1.2
Commercial hot-food holding cabinets	0.2	0.6	3.6	8.8	1.0
Commercial steam cookers	0.9	2.5	16.5	20.8	0.5
Computers and computer monitors	7.5	9.5	63.9	5.7	0.9
Faucets	10.4	24.5	178.5	no cost	0.0
High CRI fluorescent lamps	2.3	0.8	14.2	7.8	0.9
Portable air conditioners	0.9	2.9	16.7	7.7	1.1
Portable electric spas	0.4	0.8	6.2	no cost	0.0
Residential ventilating fans	0.2	0.5	3.8	no cost	0.0
Showerheads	6.3	14.9	109.2	no cost	0.0
Spray sprinkler bodies	11.8	27.1	171.6	8.0	1.1
Toilets (water closets)	1.1	3.8	34.2	no cost	0.0
Uninterruptible power supplies	1.4	1.8	12.8	6.9	0.8
Urinals	0.1	0.4	3.0	no cost	0.0
Water coolers	0.2	0.5	3.7	no cost	0.0
<b>Total</b>	<b>50</b>	<b>106</b>	<b>733</b>	<b>13.7</b>	<b>-</b>

Assuming a compliance date of 2021 for almost 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 2021 and 2035. 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 2035 for the package of recommended standards divided by the present value of the total additional costs.

## Cumulative savings estimates for: **Hawaii**

	Potential cumulative savings through 2035					
	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 compressors	17	--	--	38.9	46.0	10.4
Air purifiers	120	--	--	269.0	316.8	71.4
Commercial dishwashers	18	0.4	0.6	59.0	47.0	33.1
Commercial fryers	3	1.6	--	76.9	7.4	84.1
Commercial hot-food holding cabinets	18	--	--	40.7	48.1	10.9
Commercial steam cookers	31	0.2	0.5	75.6	80.6	26.9
Computers and computer monitors	378	--	--	845.4	988.6	226.0
Faucets	387	0.4	7.9	882.8	1,021.4	249.1
High CRI fluorescent lamps	83	--	--	186.3	213.3	50.2
Portable air conditioners	77	--	--	172.2	204.1	45.6
Portable electric spas	25	--	--	56.9	67.1	15.1
Residential ventilating fans	16	--	--	35.0	41.2	9.3
Showerheads	274	0.2	3.8	622.9	722.0	174.8
Spray sprinkler bodies	--	--	22.1	--	--	--
Toilets (water closets)	--	--	2.4	--	--	--
Uninterruptible power supplies	76	--	--	171.0	200.2	45.9
Urinals	--	--	0.3	--	--	--
Water coolers	17	--	--	38.9	45.9	10.4
<b>Total</b>	<b>1,541</b>	<b>3</b>	<b>38</b>	<b>3,572</b>	<b>4,050</b>	<b>1,063</b>

Assuming a compliance date of 2021 for almost all the recommended standards. Totals may not sum due to rounding.