

**States Go First: How States Can Save Consumers Money, Reduce Energy and Water Waste, and Protect the Environment with New Appliance Standards** (Full report at <https://appliance-standards.org/document/states-go-first>)

**Savings estimates for: Kansas**

	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)
Faucets	19.2	380	1,126	22.9	2.4	30.6	34.8	681	2,025	39.8	3.7	53.9
Showerheads	13.7	263	536	15.9	1.7	21.4	24.9	477	974	28.0	2.6	38.0
Lawn spray sprinklers	--	--	478	--	--	--	--	--	782	--	--	--
Toilets	--	--	277	--	--	--	--	--	750	--	--	--
Computers and monitors	80.2	--	--	23.2	10.0	45.1	89.9	--	--	22.5	9.4	45.7
High CRI fluorescent lamps	123.5	--	--	35.8	15.4	71.0	40.4	--	--	10.1	4.2	20.6
Air purifiers	20.5	--	--	5.9	2.6	11.1	33.6	--	--	8.4	3.5	17.0
Pool pump replacement motors	12.7	--	--	3.7	1.6	6.9	0.0	--	--	0.0	0.0	0.0
Commercial fryers	0.4	187	--	8.6	0.1	10.2	0.9	408	--	18.8	0.1	22.1
Commercial dishwashers	1.7	41	57	2.4	0.2	3.2	4.2	99	137	5.5	0.4	7.4
Commercial steam cookers	3.1	17	53	1.7	0.4	2.7	6.8	36	116	3.4	0.7	5.4
Portable air conditioners	5.9	--	--	1.7	0.7	3.2	11.3	--	--	2.8	1.2	5.7
Urinals	--	--	87	--	--	--	--	--	189	--	--	--
Audio/video equipment	12.1	--	--	3.5	1.5	6.5	12.1	--	--	3.0	1.3	6.1
Uninterruptible power supplies	15.2	--	--	4.4	1.9	8.7	16.8	--	--	4.2	1.8	8.6
Telephones	8.3	--	--	2.4	1.0	4.7	8.3	--	--	2.1	0.9	4.2
Water coolers	5.5	--	--	1.6	0.7	3.2	10.1	--	--	2.5	1.1	5.1
Ventilation fans	3.0	--	--	0.9	0.4	1.6	6.7	--	--	1.7	0.7	3.4
Portable electric spas	2.1	--	--	0.6	0.3	1.1	3.8	--	--	0.9	0.4	1.9
Hot food holding cabinets	2.1	--	--	0.6	0.3	1.2	4.6	--	--	1.1	0.5	2.3
Compressors	2.7	--	--	0.8	0.3	1.5	6.3	--	--	1.6	0.7	3.2
<b>Total</b>	<b>332</b>	<b>887</b>	<b>2,614</b>	<b>137</b>	<b>41</b>	<b>234</b>	<b>315</b>	<b>1,701</b>	<b>4,975</b>	<b>157</b>	<b>33</b>	<b>251</b>

Assuming a compliance date of 2020 for almost all of the recommended standards. Products are listed in order of potential national net present value savings. Totals may not sum due to rounding. Potential savings for pool pump replacement motors are zero in 2035 because we assume that the recommended standard would affect just seven years of product sales beginning in 2021.

	Potential annual utility bill savings (million 2016\$)		Net present value savings (million 2016\$)	Benefit-cost ratio	Payback period (years)
	In 2025	In 2035			
Faucets	18.6	37.4	279.7	no cost	0.0
Showerheads	10.3	20.8	155.4	no cost	0.0
Lawn spray sprinklers	5.2	9.7	63.4	7.8	1.1
Toilets	3.0	9.3	81.7	no cost	0.0
Computers and monitors	8.6	9.4	40.3	2.0	2.4
High CRI fluorescent lamps	12.1	4.0	30.8	1.6	3.0
Air purifiers	2.5	4.0	17.9	2.3	3.2
Pool pump replacement motors	1.5	0.0	8.1	6.9	0.9
Commercial fryers	2.0	4.8	22.3	2.8	3.6
Commercial dishwashers	1.2	3.2	20.6	9.7	1.1
Commercial steam cookers	1.1	2.5	16.5	10.6	1.0
Portable air conditioners	0.7	1.3	6.7	2.8	2.9
Urinals	0.9	2.4	16.8	no cost	0.0
Audio/video equipment	1.5	1.4	12.4	no cost	0.0
Uninterruptible power supplies	1.5	1.6	8.1	2.4	2.2
Telephones	0.9	0.8	7.3	no cost	0.0
Water coolers	0.5	0.9	7.4	no cost	0.0
Ventilation fans	0.4	0.8	5.9	no cost	0.0
Portable electric spas	0.3	0.4	3.5	no cost	0.0
Hot food holding cabinets	0.2	0.4	2.2	3.0	3.0
Compressors	0.2	0.5	2.4	3.2	3.1
<b>Total</b>	<b>73</b>	<b>116</b>	<b>809</b>	<b>6.6</b>	<b>-</b>

Assuming a compliance date of 2020 for almost all of the recommended standards. Products are listed in order of potential national net present value savings. Net present value savings take into account both utility bill savings and estimated impacts on product costs for items sold between 2020 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 21 recommended standards divided by the present value of the total additional costs.

## Cumulative savings estimates for: **Kansas**

	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)
Faucets	383	7.5	22.4	445.0	43.3	600.5
Showerheads	273	5.3	10.7	311.7	30.9	421.7
Lawn spray sprinklers	--	--	9.0	--	--	--
Toilets	--	--	6.4	--	--	--
Computers and monitors	1,162	--	--	312.3	133.5	630.3
High CRI fluorescent lamps	1,282	--	--	361.7	159.0	753.3
Air purifiers	386	--	--	102.7	43.7	201.9
Pool pump replacement motors	128	--	--	34.9	15.0	68.1
Commercial fryers	9	4.1	--	188.0	1.0	221.4
Commercial dishwashers	39	0.9	1.3	52.5	4.4	70.3
Commercial steam cookers	68	0.4	1.2	34.7	7.7	56.5
Portable air conditioners	121	--	--	32.2	13.7	63.3
Urinals	--	--	1.9	--	--	--
Audio/video equipment	160	--	--	43.3	18.5	84.6
Uninterruptible power supplies	218	--	--	58.6	25.1	120.1
Telephones	111	--	--	30.0	12.9	61.2
Water coolers	111	--	--	29.4	12.5	60.3
Ventilation fans	66	--	--	17.6	7.5	34.6
Portable electric spas	42	--	--	11.1	4.7	21.7
Hot food holding cabinets	46	--	--	12.1	5.1	24.7
Compressors	60	--	--	15.9	6.7	32.5
<b>Total</b>	<b>4,667</b>	<b>18</b>	<b>53</b>	<b>2,093</b>	<b>545</b>	<b>3,527</b>

Assuming a compliance date of 2020 for almost all of the recommended standards. Products are listed in order of potential national net present value savings. Totals may not sum due to rounding.