

Appliance Standards Awareness Project

2019 State Appliance Standards Recommendations

Savings estimates for: North Dakota

	Potential annual savings in 2025						Potential annual savings in 2035					
	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)	Electricity (GWh)	Natural gas (BBtu)	Water (million gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Air compressors	1.7	--	--	1.0	0.5	0.8	5.0	--	--	2.9	1.4	2.5
Air purifiers	3.9	--	--	2.2	1.0	2.0	7.7	--	--	4.5	2.1	4.0
Commercial dishwashers	0.4	9	13	0.6	0.1	0.7	1.1	27	37	1.9	0.3	2.0
Commercial fryers	0.1	34	--	1.6	0.02	1.8	0.2	91	--	4.3	0.05	4.9
Commercial hot-food holding cabinets	0.4	--	--	0.2	0.1	0.2	1.1	--	--	0.6	0.3	0.5
Commercial steam cookers	0.7	4	11	0.5	0.2	0.5	1.8	10	30	1.5	0.5	1.4
Computers and computer monitors	23.6	--	--	13.2	6.4	11.5	29.6	--	--	17.3	8.1	15.1
Faucets	5.3	52	185	5.3	1.4	5.4	11.8	113	408	12.0	3.2	12.0
High CRI fluorescent lamps	12.7	--	--	7.1	3.4	6.0	3.2	--	--	1.9	0.9	1.7
Portable air conditioners	1.9	--	--	1.1	0.5	1.0	5.7	--	--	3.3	1.6	2.9
Portable electric spas	0.9	--	--	0.5	0.2	0.4	1.9	--	--	1.1	0.5	1.0
Residential ventilating fans	0.5	--	--	0.3	0.1	0.2	1.1	--	--	0.6	0.3	0.5
Showerheads	3.7	36	88	3.7	1.0	3.8	8.3	79	196	8.5	2.3	8.5
Spray sprinkler bodies	--	--	140	--	--	--	--	--	280	--	--	--
Toilets (water closets)	--	--	50	--	--	--	--	--	155	--	--	--
Uninterruptible power supplies	5.3	--	--	2.9	1.4	2.5	7.2	--	--	4.2	2.0	3.6
Urinals	--	--	7	--	--	--	--	--	18	--	--	--
Water coolers	1.7	--	--	0.9	0.4	0.8	3.7	--	--	2.2	1.0	1.9
Total	63	134	494	41	17	38	89	319	1,125	67	24	63

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	0.1	0.4	1.8	3.2	3.0
Air purifiers	0.4	0.9	3.5	2.1	3.5
Commercial dishwashers	0.2	0.8	4.7	8.6	1.3
Commercial fryers	0.3	0.7	2.2	1.8	5.2
Commercial hot-food holding cabinets	0.04	0.1	0.5	2.9	3.1
Commercial steam cookers	0.2	0.6	3.9	9.9	1.0
Computers and computer monitors	2.3	3.0	11.0	1.9	2.6
Faucets	3.0	7.5	53.9	no cost	0.0
High CRI fluorescent lamps	1.2	0.3	4.9	2.7	2.5
Portable air conditioners	0.2	0.7	2.7	2.6	3.2
Portable electric spas	0.1	0.2	1.6	no cost	0.0
Residential ventilating fans	0.1	0.1	0.9	no cost	0.0
Showerheads	1.7	4.1	29.7	no cost	0.0
Spray sprinkler bodies	1.5	3.5	22.4	7.8	1.1
Toilets (water closets)	0.5	2.0	17.5	no cost	0.0
Uninterruptible power supplies	0.5	0.7	3.0	2.2	2.3
Urinals	0.1	0.2	1.6	no cost	0.0
Water coolers	0.1	0.3	2.5	no cost	0.0
Total	13	26	168	6.4	-

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: North Dakota

	Potential cumulative savings through 2035					
	Electricity (GWh)	Natural gas (TBtu)	Water (billion gallons)	NO _x (tons)	SO ₂ (tons)	CO ₂ (thous. MT)
Air compressors	42	--	--	24.1	11.6	21.5
Air purifiers	81	--	--	46.4	22.3	41.4
Commercial dishwashers	9	0.2	0.3	15.6	2.6	16.7
Commercial fryers	1	0.8	--	38.2	0.4	44.4
Commercial hot-food holding cabinets	10	--	--	5.5	2.7	4.9
Commercial steam cookers	16	0.1	0.3	13.2	4.4	12.8
Computers and computer monitors	359	--	--	204.6	98.6	182.6
Faucets	118	1.1	4.1	119.0	32.4	120.4
High CRI fluorescent lamps	123	--	--	69.4	33.7	62.6
Portable air conditioners	50	--	--	28.7	13.8	25.6
Portable electric spas	19	--	--	10.8	5.2	9.7
Residential ventilating fans	11	--	--	6.0	2.9	5.4
Showerheads	83	0.8	2.0	83.6	22.9	84.4
Spray sprinkler bodies	--	--	2.9	--	--	--
Toilets (water closets)	--	--	1.2	--	--	--
Uninterruptible power supplies	85	--	--	48.8	23.5	43.5
Urinals	--	--	0.2	--	--	--
Water coolers	37	--	--	21.1	10.1	18.8
Total	1,045	3	11	735	287	694

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