Appliance Standards Awareness Project

2023 State Clean Lighting

Savings estimates for: Alaska

	Potentia	annual reductio	ns in 2030	Potential		
State	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO2 emissions (thous. MT)	annual electricity savings in 2030 (GWh)	Potential annual electricity bill savings in 2030 (million 2020\$)	
Alaska	2.2	0.26	30	94	18	

Assuming a compliance date of 2025.

	Potentia	al cumulative red through 2050	Cumulative electricity bill		
State	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO ₂ emissions (thous. MT)	savings through 2050 (million 2020\$)	Total benefit– cost ratio
Alaska	26	3.1	350	227	26.9

Assuming a compliance date of 2025. The total benefit-cost ratio is calculated as the present value of the total utility bill savings from products sold through 2050 for the recommended standard divided by the present value of the total additional costs.

Fluorescent vs. LED: Economic analysis for most-shipped lamps (commercial sector)

Fluorescent lamp type	LED incremental cost (2020\$)	First-year electricity bill savings from LED (2020\$)	Life-cycle cost savings from LED (2020\$)	Payback period (years)
4-foot T12 – 40 W	2.59	15.80	74	0.1
4-foot T12 – 34 W	3.67	11.35	61	0.3
4-foot T8	0.54	7.68	44	0.01
4-foot T5	2.29	10.18	65	0.1
4-foot T5 high output	4.61	20.21	126	0.2
Pin-based CFL	3.02	12.63	35	0.2