



# Clean Lighting: Bright policy for a safer, cleaner Minnesota

## Fluorescent lights are toxic, inefficient, and outdated.

Mercury is a well-known toxin with particularly dangerous effects for pregnant people and children.

Minnesota has long banned mercury thermostats and other products. Our state agencies work diligently to reduce mercury pollution in our water and air. Yet many stores still sell fragile glass tubes of mercury vapor just waiting to break: fluorescent lights.

Consumers and businesses alike have thousands of readily available LED alternatives<sup>1</sup> for fluorescent bulbs (or “lamps” as they’re called in the industry). Thanks to their efficiency, switching from fluorescent to LED lamps could save Minnesota close to 800 gigawatts of electricity in a year! That’s over 650,000 avoided megatons of carbon dioxide emissions.

In addition to being more efficient, these LEDs are also:

- Available now
- Mercury-free
- Longer lasting (2-3x)
- Equal or better quality (bye-bye flickering!)
- Cost effective (significantly lower energy use means savings within weeks or months of replacement)

## Clean Lighting legislation offers a path forward.

Despite labeling and recycling requirements in statute for fluorescent lamps, they still end up accidentally broken or thrown away, possibly exposing everyone along the way to an unnecessary dose of toxic mercury. **It’s time for light bulbs to make like thermometers and ditch the mercury.**

The Clean Lighting bill will end the sale of fluorescent lamps in Minnesota, effective in 2025 for screw- or bayonet- base compact fluorescent lamps, and in 2026 for the slightly more specialized pin-base linear or compact fluorescent lamps.

This phase out reduces an unnecessary risk to many Minnesotans, especially building maintenance and custodial staff, waste and recycling workers, certain retail workers, and anyone in proximity to fluorescent lamps.

House File 3326  
Hemmingsen-Jaeger

Senate File 3345  
Mitchell

## A simple upgrade with many benefits.

### Potential annual reductions in 2030

State	CO <sub>2</sub> emissions (thous. MT)	Potential annual electricity savings in 2030 (GWh)	Potential annual electricity bill savings in 2030 (million 2020\$)	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)
Minnesota	206	611	\$53 million	17.2	1.36

Assuming a compliance date of 2026.

### Potential cumulative reductions through 2050

State	CO <sub>2</sub> emissions (thous. MT)	Cumulative electricity bill savings through 2050 (million 2020\$)	Total benefit-cost ratio	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)
Minnesota	2,665	\$694 million	10.6	173	17.5

Assuming a compliance date of 2026. 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.

By flipping the switch, Minnesotans won't just cut mercury pollution. We will save carbon emissions, electricity, and utility bills! The Appliance Standards Awareness Project estimates Minnesotans would save as much as \$68 million in utility bills in a single year.

## There is broad support for a fluorescent phase out.

Multiple states have updated their mercury regulations to end fluorescent lamp sales, including: Vermont, California, Colorado, Hawaii, Oregon, Rhode Island, and Maine. Fresh Energy is building a list of Minnesota-based supporters of HF 3326 and SF 3345, please let us know if you're interested in learning more and joining us. Current supporters include:

- Appliance Standards Awareness Project (ASAP)
- Fresh Energy
- Minnesota Environmental Partnership
- Partnership on Waste and Energy (Hennepin, Ramsey, & Washington counties)
- Recycling Electronics for Climate Action (RECA)
- Republic Services

## Want to join this list?

Contact Fresh Energy staff Eric Fowler, senior policy associate, buildings, at [fowler@fresh-energy.org](mailto:fowler@fresh-energy.org) or Anna Johnson, senior manager, state and local affairs at [johnson@fresh-energy.org](mailto:johnson@fresh-energy.org).

1. Farewell to Fluorescent Lighting | ACEEE, <https://www.aceee.org/research-report/b2202>  
2. Mercury biomonitoring study: MN Public Health Data Access -- MN Dept. of Health - MN Data ([state.mn.us](http://state.mn.us))

According to the Minnesota Department of Health, "Babies in utero and young children are most at risk because... mercury can impact the developing brain and nervous system, affecting learning abilities, memory, and attention. In adults and children, ongoing exposure ... can also damage the nervous system and the kidneys."<sup>2</sup>



**Appliance Standards Awareness Project  
2024 State Clean Lighting**

**Savings estimates for: Minnesota**

State	Potential annual reductions in 2030			Potential annual electricity savings in 2030 (GWh)	Potential annual electricity bill savings in 2030 (million 2022\$)
	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO <sub>2</sub> emissions (thous. MT)		
Minnesota	19.1	0.53	92	681	72

Assuming a compliance date of 2026 for linear fluorescent lightbulbs and 2025 for compact fluorescent lightbulbs.

State	Potential cumulative reductions through 2050			Cumulative electricity savings through 2050 (GWh)	Cumulative electricity bill savings through 2050 (million 2022\$)
	Mercury in lamps shipped (lbs)	Power plant mercury emissions (lbs)	CO <sub>2</sub> emissions (thous. MT)		
Minnesota	194	8.1	1,408	8,823	947

Assuming a compliance date of 2026 for linear fluorescent lightbulbs and 2025 for compact fluorescent lightbulbs.

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

Fluorescent lamp type	LED incremental cost (2022\$)	First-year electricity bill savings from LED (2022\$)	Life-cycle cost savings from LED (2022\$)	Payback period (years)
4-foot T12 – 40 W	2.16	8.88	40	0.2
4-foot T12 – 34 W	3.32	6.37	32	0.5
4-foot T8	0.11	4.32	24	0.03
4-foot T5	1.45	5.72	35	0.3
4-foot T5 high output	3.95	11.35	67	0.3
Pin-based CFL	2.14	7.10	20	0.3