

The Clean Lighting Coalition (CLiC) is a global campaign leveraging expert knowledge and clean lighting stakeholders to **transition global markets to safe, cost-effective, and energy-saving LED lighting.**

The prompt global phase out of fluorescent lamps is technologically feasible and economically justified due to the rapid development of LED lighting over the last five years. Energy-efficient retrofit LED lamps can replace fluorescents in virtually all applications.

If adopted, the cumulative (2025-2050) global benefits of phasing-out all fluorescents would:

- Eliminate 232 tonnes of mercury pollution, both from the light bulbs themselves and from avoided mercury emissions from coal-fired power plants;
- Reduce global electricity use by 3%;
- Avoid 3.5 gigatonnes of CO2 emissions cumulatively between 2025-2050; equivalent to removing all passenger cars globally from the road for a whole year; and
- Save US\$1.3 trillion on electricity bills.

[According to data](#) from over 60 countries, we do not need to delay a global phase out of toxic, mercury-added fluorescent lamps any longer as cost-effective, energy-efficient and mercury-free alternatives are widely available across the globe.

- **Today's LED lamps can easily replace fluorescents** – both compact fluorescent lamps (CFLs) and linear fluorescent lamps (LFLs) – and completely remove mercury from lighting installations. LED lighting is widely accessible, affordable, and compatible with over 91% of all existing fluorescent fixtures in buildings and homes around the world. Additionally, there are internationally recognized performance standards for LEDs that will ensure safe and high-quality lighting.
- **LED efficacy is 40% higher than fluorescents.** LEDs produce the same light with less energy, resulting in lower electricity bills for users.
- **Mercury recovery from waste lamps is very low across all markets.** In Europe – a region with progressive waste regulations – recycling rates fall between 20 - 30%. In emerging economies, recovery is less than 1%. Since there are now mercury-free alternatives to all fluorescent lamps, mercury-added lamps should not be manufactured or imported, in particular in developing countries with no capacity or infrastructure for mercury waste recovery.
- **More than 60 countries representing 70% of the fluorescent lighting market have initiated actions to phase out fluorescents.** To promote a smooth transition to all LED lighting, governments use policy tools such as bans that remove toxic products from the market (per mercury content) and lighting efficiency standards that remove the least efficient products.

- **Households and businesses reap significant economic benefits by transitioning LFLs to LEDs.** The average payback periods<sup>1</sup> of an LED lamp is less than 12 months in the Africa, Asia Pacific, and Latin America and the Caribbean regions, with T8s' paying back in less than 6 months. Additionally, the LED options result in 50%-70% in financial savings for consumers.
- **The widespread adoption of LEDs will reduce funding needs for governments subsidising customer electricity costs** as LED alternatives to fluorescents require approximately half the electricity. The remaining funds can be redirected to other government programs.
- **There is a rapid global decline in fluorescent manufacturing** - with most companies reporting simultaneous LED production. The manufacturing volumes of high wattage CFLs and LFLs are almost negligible. Fluorescent T12 & T5 manufacture is also negligible while nearly all known manufacturers are able to convert fluorescent production lines to LED technology.
- **LED manufacturing is booming in every region, creating jobs and enabling local businesses to realize the economic benefits of a clean lighting transition.** In the Global South, there are over 120 LED manufacturing and assembly companies in over 30 countries, dispersed across every region. LEDs are produced by local workers and sold at local market price.
- **Major LED manufacturers are prepared to meet lamp by lamp replacement of fluorescents** at the end of their useful life – a strategy that avoids an influx of mercury waste to manage while also stopping new mercury from entering the market.

## The Clean Lighting Coalition's Position

Based on the most recent market data, the Clean Lighting Coalition recommends that Parties to the Minamata Convention on Mercury COP5 adopt a phase out date for all remaining lighting categories, as described in the Africa Lighting Amendment, as early as 2025.

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<sup>1</sup> The energy savings return for the incrementally higher price of the LED tube.



## CLiC Position on COP5 decisions regarding mercury-containing fluorescent lighting

### The Path to Saying Farewell to Fluorescents

At the Minamata Convention on Mercury Fourth Conference of Parties (COP4) in March 2022, 137 Parties agreed to phase out CFLs by 2025. This decision will avoid 26.2 metric tonnes of mercury pollution, prevent 261.5 million metric tonnes of CO<sub>2</sub> emissions and save people \$77.8 billion in lower energy bills by 2050, representing a significant win for people and the planet.

However, negotiations on the phase out dates of two categories of LFLs under discussion in Annex A were not finalised. Delegates decided<sup>2</sup> to carry forward these discussions at [COP5](#) in October 2023. Table 1 presents the LFL categories and the years that were under consideration.

**Table 1. Lighting Products to be Discussed at COP5, Subject to Article 4, Paragraph 1**

Mercury Added Products	Phase Out Date <sup>3</sup>
Linear fluorescent lamps (LFLs) for general lighting purposes: (a) Halophosphate phosphor ≤ 40 watts with a mercury content not exceeding 10 mg per lamp (b) Halophosphate phosphor > 40 watts	[2025] [2027] [2030]
Linear fluorescent lamps (LFLs) for general lighting purposes: (a) Triband phosphor < 60 watts with a mercury content not exceeding 5 mg/lamp	[2027] [2030]

**In addition to the outstanding discussions from COP4, delegates at COP5 will consider a new proposed amendment from the Africa region – representing 41 countries – to phase out all remaining fluorescent lamps.**

<sup>2</sup> Decision MC-4/3 - Review and amendment of annexes A and B to the Minamata Convention on Mercury; [Link](#)

<sup>3</sup> Date after which the manufacture, import or export of the product shall not be allowed.



## CLIC Position on COP5 decisions regarding mercury-containing fluorescent lighting

### Analysing the mechanics of Africa’s COP5 Lighting Amendment

The COP5 Lighting Amendment proposes inserting four new rows into Annex A to the Convention Part I. The four new rows expand the scope of coverage to include all wattages of fluorescent lamps already in Part I and to include non-linear fluorescent lamps.

The proposal, paired with pending decisions from COP4, seeks to eliminate all remaining categories of CFLs and LFLs.<sup>4</sup>

#### CFL.I >30 watts and CFL.NI’s:

Africa region proposes inclusion of the two additional product categories of CFLs to be considered in COP-5, with the goal to include virtually all types of CFLs used for general lighting purposes under the scope of the Minamata Convention. The proposed phase out dates for CFL.i >30 watts and CFL.ni’s would be in line with the decision that was made at COP-4 to phase out integrally ballasted CFLs (CFL.i) that are ≤ 30 watts by 2025. **We support the proposed 2025 phase out dates for these two categories.**

Mercury-added products	Date after which the manufacture, import or export of the product shall not be allowed (phase out date)
Compact fluorescent lamps (CFLs) for general lighting purposes that are > 30 watts	2025
Compact fluorescent lamps with a non-integrated ballast (CFL.ni) for general lighting purposes that are ≤ 30 watts with a mercury content not exceeding 5 mg per lamp burner	2025

<sup>4</sup> Special purpose fluorescent lamps that are used for UV light emission in tanning beds and industrial processes like curing glue and paint are not within scope of Minamata and thus are not affected by the proposed amendment.



## CLiC Position on COP5 decisions regarding mercury-containing fluorescent lighting

### Triband Phosphors >60 watts:

The proposed amendment proposes to include triband phosphor LFLs greater than 60 watts to Annex A and to phase them out by 2026. With this new amendment, the triband phosphor LFL scope of coverage would be extended to bring all wattages under coverage. Considering that these lamps are currently low in volume (basically 6ft and 8ft LFLs), **we believe a 2025 phase out is feasible.**

Linear fluorescent lamps (LFLs) for general lighting purposes: (b) Triband phosphor ≥ 60 watts	2026
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### Non-linear fluorescent lamps:

The original text of the Minamata Convention doesn't include a common definition of "linear fluorescent lamp", which means Parties can interpret the treaty differently. Some Parties could interpret the current text to mean non-straight fluorescent lamps, such as U-bends, are covered, while others may interpret it as referring to straight lamps only. In this regard, the expansion of coverage by the Africa region is welcomed because it addresses any lack of common interpretation of the text. **We believe that a 2025 phase out date for this category is feasible.**

Non-linear fluorescent lamps (NFLs) (e.g., U-bend and circular) for general lighting purposes: (a) Triband phosphor, all wattages (b) Halophosphate phosphor, all wattages	2026
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In summary, the 4 new rows will:

1. Expand the scope of coverage to include all wattages of fluorescent lamps;
2. Clarify the definition or interpretation of linear/nonlinear fluorescent lamps; and
3. Provide the opportunity for Parties to agree on different phase out dates for the various fluorescent lamps according to their respective market share, feasibility of early phase out, accrued benefits, etc.



## CLiC Position on COP5 decisions regarding mercury-containing fluorescent lighting

### Clean Lighting Coalition’s proposal on feasible phase out dates for the lighting categories under discussion

The Clean Lighting coalition has conducted assessment on the feasible phase out dates for all the categories of lighting that will be discussed during COP5, and the following is our proposal:

Mercury-added products	Date after which the manufacture, import or export of the product shall not be allowed (phase out date)		
	Bracketed dates from COP4	Africa’s COP5 lighting amendment	CLiC position
Compact fluorescent lamps (CFLs) for general lighting purposes that are > 30 watts		2025	2025
Compact fluorescent lamps with a non-integrated ballast (CFL.ni) for general lighting purposes that are ≤ 30 watts with a mercury content not exceeding 5 mg per lamp burner		2025	2025
Linear fluorescent lamps (LFLs) for general lighting purposes: (a) Halophosphate phosphor ≤ 40 watts with a mercury content not exceeding 10 mg per lamp (b) Halophosphate phosphor > 40 watts	[2025] [2027] [2030]		2025
Linear fluorescent lamps (LFLs) for general lighting purposes: (a) Triband phosphor < 60 watts with a mercury content not exceeding 5 mg/lamp	[2027] [2030]		2025
Linear fluorescent lamps (LFLs) for general lighting purposes: (b) Triband phosphor ≥ 60 watts		2026	2025
Non-linear fluorescent lamps (NFLs) (e.g., U-bend and circular) for general lighting purposes: (a) Triband phosphor, all wattages (b) Halophosphate phosphor, all wattages		2026	2025

## Global Support for the LED Transition

Ahead of COP5, 130+ individuals representing 100+ organizations across 55 countries voiced their support for a prompt end to fluorescent lighting through a letter to the COP5 Heads of Delegation – citing the economic, environmental and health costs of continuing to allow the manufacture, import and export of mercury-lighting. The signatories called on the 147 delegations to the convention to stand in favor of the Africa Lighting Amendment and adopt the proposed 2026 phase out date, or earlier.