

What is the death ticker?

The European Environmental Bureau has published the Death Ticker to show that delays to the implementation of environmental performance standards set under the Industrial Emissions Directive (IED) on the EU coal power plant fleet will result in deaths and chronic diseases that could be avoided.

First version of the Death ticker:

In May 2015, Greenpeace and the European Environmental Bureau (EEB) released a [report](#) underlining the potential benefits if 290 coal/lignite-fired Large Combustion Plants (LCPs) applied different levels of emissions achieved through BATs. These standards would force the EU's largest power plants to reduce deadly emissions by putting in place best available techniques (BATs) that would, for the EU coal-fired power plants assessed, every year lead to significant economic benefits of €20 billion from reduced health pollution and prevent more than 20 000 deaths from air pollution. The baseline for assessing damage data per tonne of emission were taken from the EEA report on the costs of air pollution from industrial facilities (2005 prices) on the basis of averaged period of 2008-2012 emissions reported under the European Pollutant Transfer Register (E-PRTR).

Second version of the Death ticker (11 October 2016):

In October 2016, the EEB, HEAL, CAN, WWF and Sandbag released a [report](#) 'Lifting Europe's Dark Cloud: How cutting coal saves lives'. The health benefits were calculated on the basis of 257 currently operating coal / lignite power plants and 2013 emissions data reported in the E-PRTR. Main changes also relate to the damage cost prices per tonne of pollutant, which have been updated (2013 prices).

The Directive gives industrial plants up to four years to adapt the new standards, which come into play when the new LCP Best Available Techniques (BAT) conclusions are published in the EU Official Journal. This should have happened by August 2014 due to the maximum eight-year BAT review cycle required by the IED, but because of a lack of political will from the European Commission and delays pushed by a few Member States, publication is not expected before 2017. This would delay effective emission reductions until 2021 at the earliest. Further the report shows that about 56% of the existing coal fleet is making use of derogations from the IED emission limits. [1].

The Death ticker calculates the accumulated external health impact costs which could have been prevented as from 1 August 2014, if "true BAT" would have been implemented from that date for the largest EU 257 coal/lignite-fired LCPs.

The ticker is updated on a daily basis for premature deaths" (and every second for the health-related costs and asthma).

The ticker looks at the external health costs due to the major air pollutants (NO_x, SO_x) but not other air pollutants (CO₂, heavy metals, N₂O etc) nor water pathway related damage costs. Neither do the results cover other fuels used in other combustion plants (such as biomass, gas, liquid fuels) and therefore the information provided by the death ticker is an **underestimate** of potential external health costs prevented due to strict enforcement of the LCP BAT conclusions.

What are BAT requirements?

The revised LCP BREF (best practice) standards set emission levels for air and water pollutants that are achieved by applying BAT requirements. If the largest existing coal/lignite power plants implemented the annual averaged air emissions BAT requirements, i.e. made use of the best pollution control techniques available, they could achieve major

improvements in terms of environmental and health impacts. *Please refer to the reports for more information.*

Examples of pollution reduction potential:

Nitrogen oxide (NO_x) emissions could be cut by a factor of three for lignite and hardcoal plants through a technology known as Selective Catalytic Reduction combined with boiler tuning, compared to the current emission limit of 200mg/Nm³ set by the IED;

Sulphur Oxide (SO_x) emissions could be slashed by a factor up to 20 compared to the current emission limit of 200mg/Nm³ set by the IED through state-of-the-art wet flue gas desulphurisation systems and switching to low sulphur fuels;

Dust emissions could be reduced by a factor of 20 with upgrades of the existing electrostatic precipitators or the installation of fabric filters to meet a level of 1mg/Nm³ compared to the current emission limit of 20mg/Nm³ set by the IED;

Mercury levels could be brought down to a level of 1 µg/Nm³ or lower through the improvement of common abatement techniques for hard-coal plants and/or dedicated mercury abatement such as adding activated carbon, halogenated additives, enhanced catalysts or dedicated capture modules.

Effective performance depends on what national permit writers require the operators to meet. The Directive sets out the principle that emission limits should not exceed the upper BAT emission ranges. Permit writer are entirely free to set emissions limits on the basis of the stricter range (i.e. "true" BAT). The same holds for updating national binding rules by the Member States.

We therefore want the Commission to:

- advance the date of the publication of the BAT requirements in the EU Official Journal to early 2017 at the latest;
- strengthen the ambition of the BAT requirements to prevent more damage being done to the environment, to prevent additional health-related costs and to protect the lives of EU citizens. Arbitrary relaxations for plants operating for less than 1500 hours per year should be removed as they constitute a market distortion measure to the benefit of the most polluting plants ;
- review the 'EU safety net' to reflect technical progress. The minimum binding emission limit requirements set in the IED for NO_x, SO_x and dust in 2010 should be made stricter to reflect the emissions ranges achieved with BAT. They should also include additional pollutants (i.e. mercury, fluorides, hydrochloric acid) and require continuous monitoring. Further, the desulphurisation rate derogation for lignite combustion should be scrapped. [2]

We want member states to:

- update their national legislation and enforce true BAT requirements in permit reviews on all LCPs on their territory, and not await the outcome of lengthy EU procedures and deadlines.

However, it is vital to note that highest gains for public health will be achieved by **complete phase-out of coal power in favour of sustainable renewable energy sources and reduced energy consumption.**

Notes:

[1] The findings of the ['Lifting Europe's Dark Cloud: How cutting coal saves lives' report](#) shows that 60% of the total annual 22,900 premature deaths are due to 56% (143 out of 257) coal power plants making use of derogations from stricter air pollution limits

[2] See [letter](#) of Green 10 sent on 2 November 2015 to Commissioner Vella and Chapter 4 of the report 'Lifting Europe's Dark Cloud: How cutting coal saves lives' and [technical comments](#) sent by the EEB for the next decision making step on the 20th October 2016 IED Forum