

**Country specific information on CZ, POL, EL, UK, FIN**

**In response to call for delays for LCP BREF adoption**

**(“Impact Assessment”)**

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## GENERAL RESPONSE (main points):

- Substantial health benefits can be gained by implementing stricter air pollution standards. Please see findings from joint NGO publication "[Lifting Europe's Darkcloud : How cutting coal saves lives](#)", modeling the health effects of different compliance scenarios (2013 reported emissions / IED Annex V / upper LCP BREF range / stricter LCP BREF range)
- All of these countries ignored the [2006 LCP BREF](#) they were supposed to implement by 30 October 2007 due to the IPPC Directive (Poland as from in 2011), they lobbied for the Chapter III derogations for the 50MWth LCPS in the IED co-decision, thus their credibility on making points about how BAT should look like and about adequacy of ambition level by comparing with status quo of their national implementation deficit is to be seriously put into question.
- The governments of these Member States argue on the basis of concerns with "*complexity of technical challenges [...] in accordance with a plant or site's specific design*" for implementation in Mid 2021 and question proportionality of costs compared to benefits. All these issues are to be handled in accordance to Article 15(4) of the IED. There is sufficient evidence within other countries that these standards are economically and technically viable for the sector as a whole
- These countries have an extremely high share of their LCPs in Chapter III derogations of the IED (that is the EU minimal binding ELVs based on the 2006 BREF, which has been set on plants data in the 2000-2003 period. In 2010 -actually 2008- it has been agreed politically that the upper BAT-AEL ranges of that 2006 BREF should constitute the EU lowest common denominator limits to be met by existing plants as from 2016. The NO<sub>x</sub> 200mg/Nm<sup>3</sup> ELV for coal/ lignite >500MWth dates back to the 2001 LCP Directive and had to be met by 2016 at site level.

For their coal/lignite plants the share of derogations is as follows (see Lifting the Dark cloud, chapter 3):

Country	Number of coal LCPs	Number of coal LCPs in derogations from IED	Share of total coal generation capacity
CZ	38	35	<b>90%</b>
EL	6 (lignite)	7	<b>88%</b>
FIN	10	10	<b>100%</b>
POL	45 (of which 5 lignite)	36	<b>78%</b>
UK	11	11	<b>100%</b>

There are many other plants in the derogations (HFO, gas or peat units) not taken into account here. *Please refer to the national TNP on CIRCAB adopted for more details. A rough cost assessment has been made for all the TNPs of these countries<sup>1</sup>.*

- The revised LCP BREF follows the same procedures as the previous one which dates back to 2006 i.e. it is based on facts and data. Nothing changed in working procedures except that

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<sup>1</sup> For the Finish TNP the pre 16 March 2016 version has been used, since the new version is not available on CIRCAB

the data basis is more robust and future BAT-C are clearly binding, hence this political move to undermine these. Similar plants of similar age and size (+ fuels) already meet the revised BAT-AEL under technically and economically viable conditions. This is based on 2010 data, the claim these countries could not implement these as from 2021 is not justified. The responsible authorities should explain why they claim it is impossible for their operators to catch up with e.g. AT, BE, NL, DE, SWE, IT etc... What makes their operators so special compared to the rest of the EU?

- We disagree with the weak upper range of the revised LCP BREF and this is based on sound and solid facts, not arbitrary or fictional cost proportionality claims these countries insinuate.
- The ministries behind this letter mix up the sector specific BAT determination with site specific proportionality assessment in the implementation phase. Whilst we agree that derogations should be the strict exception, to us many derogation applications of operators is a good signal since the BAT levels “bite” on the ground. BAT is about setting the most effective performance levels (unfortunately not the case), definitely not to adapt to the laggards of the sector (thanks to the permit writers of those countries being very close to the interests of their operators from the time those plants went into operation). We cannot accept to sideline the IED Article 15.4 procedure which is subject to public scrutiny.
- “Impact Assessment” is not foreseen in the IED or in the BREF review rules. It is just a delay strategy to the benefit of the polluters. Timing definitely matters (see [EEB Deathticker](#)). Similar to first point these countries already knew since June 2015 (Final TWG meeting) on what is coming....instead of trying to delay/undermine/weaken/hope to block the publication the responsible authorities should rather enforce BAT through permit reviews and get finally the job done or shut those plants if they think that this approach brings more overall environmental benefit (see proposed EEB compromise in comment #170 to accommodate this)
- If an IA is to be done then these countries should also calculate the CBA on the basis of the stricter BAT range for the existing plants. Will the ministers that signed the letter also commit firmly that if the result show that the CBA ratio points to much higher gains (to the public) compared to costs (operator + other sectors / country costs) if enforcing the strict BAT range instead to the draft upper BAT range of the LCP BREF, that they will call:
  - a) the LCP draft BAT-C to be adapted accordingly (tightened) and
  - b) to implement the stricter BAT-AEL range?

If not, then clearly waste of time and public money and just a one-sided approach.

*Benefits equation: please note the data below is from the Lifting the Dark Cloud report / plant by plant sheet attached and ONLY quantifying the health benefits due to reduced emissions of NOx and SOx from the coal/lignite fired fleet that was operational in 2016 (257 plants). It does NOT take into account all the other LCPS (fuels) covered by the LCP BREF, neither does it quantify the other air pollutants (HCL, HF and hg +CO2 etc) nor does it take account of the water related impacts, or waste phase. So this is an underestimate of the benefits of what the revised LCP BREF would deliver. On the other hand we did not factor in all the footnote relaxations (peak load, Annex V alignments, high SO2 lignites desulphurization rate etc) the start up and shut down exclusions etc.*

*Also we have general reservations of any CBA assessment based on subjective cost prices for the health damage endpoints. It also does not account of ecosystem damage so is substantially flawed in indicating the true costs of air pollution. The techniques required to meet the BAT-AEL range are*

standard in most EU countries which did an effort to implement the 2006 LCP BREF, thus we consider these as generally applicable for the whole sector without any need of any CBA, as is clearly established in the ECM BREF, see EEB comments to the Cost-benefit Study on this count.

## CZECH REPUBLIC

### Benefits of tighter air pollution standards

TNP impact: The externalized health damage costs due to the TNP derogation with 94 LCP entries (second highest after UK) accumulates to **13,062 Billion €** (4.5 years), of which 50% (6,564 Billion €) is due to 24 coal/lignite fired LCPs only.

Compliance scenario (38 coal LCPs)	Annual (avoidable) damage costs (Million€)	Daily (avoidable) damage costs (Million €)
2013 to IED	2, 230	6.1
2013 to BREF	2,660	7.3
2013 to BAT	3,370	9.2
IED to BAT	1140	3.1
BREF to BAT	710	1.9

From country sheet following info: 35 of the total 38 CZ coal plants = 90% of the fleet are in Chapter III derogations = 1,302 premature deaths each year (2013 data).

The health damage cost per year for these 35 coal plants is 3 589 Million € (2013 data), if they would have required implementing

- a) BAT levels the annual health damage cost would go down to 400 Million €. This makes an annual difference of + 3 189 Million € in health costs. Since these are all in the CHP/TNP you can multiply by 4.5 = **14.4 Billion € extra avoidable health damage costs**.  
You may also consider that the IPPC Deadline (2008) is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the **extra damage cost due to complacent attitude with polluters is 39,9 billion €**
- b) Just meeting the IED 2016 limits, the annual external damage cost figure for these would be 1 487 Million€. This makes an annual difference of + 1702 Million € in health damage costs. Since these are all in the CHP/TNP you can multiply by 4.5 = **7.7 Billion € extra avoidable damage costs**  
You may also consider that the IPPC Deadline (2008) is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the extra damage cost due to complacent attitude with polluters is **21,3 Billion € extra avoidable health damage costs** just for these 35 coal plants.

Costs and benefits (lignite only): Compliance to the upper BAT-AEL of the final draft LCP BREF (including the desulphurization rate derogation 320mg) on the lignite / hardcoal fleet by own calculations of ECF consultancy study:

Fuel type	Total CapEx (Million EUR)	Annual costs (Million EUR/a)
Hardcoal	584	91,8
Lignite	1,765	271,2
<b>Total (high estimate)</b>	<b>2,349</b>	<b>363</b>

Benefit / cost ratio (coal/lignite only):

BAT compliance scenario (12.5 years): B 39,9 Bn€ / C 6,88 Bn€ = **5.8 : 1**

IED Annex V ELVs compliance scenario (12,5 years): B 21,3 Bn€ / C 6,88 Bn€ = **3:1**

## POLAND

### Benefits of tighter air pollution standards

TNP impact: The externalized health damage costs due to the TNP derogation with 47 LCP entries accumulates to **13,625 Billion €** (4.5 years), of which 82% (11,148 Billion €) is due to 19 coal/lignite fired LCPs only.

Compliance scenario (45 coal LCPs)	Annual (avoidable) damage costs (Million€)	Daily (avoidable) damage costs (Million €)
2013 to IED	9,610	26.3
2013 to BREF	11,450	31.4
2013 to BAT	14,860	40,7
IED to BAT	5,250	14.4
BREF to BAT	3,410	9.3

From country sheet following info: 36 of the total 45 POL coal plants = 78 % of the fleet are in Chapter III derogations = 4,426 premature deaths each year (2013 data).

The health damage cost per year for these 36 coal/lignite plants is 12 192 Million € (2013 data), if they would have required implementing:

- a) BAT levels the annual health damage cost would go down to 774 Million €. This makes an annual difference of + 11 418 Million € in health costs. Since these are all in the CHP/TNP/Accession/LLD you can multiply simply by 4.5 = **51,4 Billion € extra avoidable damage costs** just for these 36 coal plants. *Note that 8 LCPs (Adamow, Polianec, Laziska.. units are in the LLD), so the running time would rather be 3 years. However they all (except Sierza) have higher ELVs due to accession treaty derogation. For that reason the 4.5 factor is ok.*

You may also consider that the IPPC Deadline (2010, due to Accession Treaty extension) is the right timeline to start counting from –personally I take this line- , in this case multiply by 10.5= the **extra damage cost due to complacent attitude with polluters is 119,9 billion €**

- b) just meeting the IED 2016 limits, the external damage cost figure for these would be 4 498 Million€. This makes an annual difference of + 7 694 Million € in health damage costs per year. Since these are all in the CHP/TNP you can multiply by 4.5 = **34,6 Billion € extra avoidable damage costs** just for these 36 coal plants.

You may also consider that the IPPC Deadline (2010) is the right timeline to start counting from –personally I take this line- , in this case multiply by 10.5= the **extra damage cost due to complacent attitude with polluters is 80,8 Billion €.**

**Costs and benefits:** A lobby letter from the Environment Ministry (Marcin Korolec) of 6 August 2015 – Greenpeace and EEB obtained through ATD request- claimed that the “*newly formulated*

BAT-AELs until 2020 would amount to **2.8Bn EUR**". This is clearly "peanuts" in comparison to the benefits due to health benefits from tighter standards!:

Main conclusions:

- 4.9 times less of costs for polluters compared to externalized health damage caused by the Polish TNP derogation alone;
- This represents 19 times less the health damage caused to EU citizens by the complacent attitude of the Polish Government with the polluters to ignore the 2016 IED ELVs.

**The benefit to cost ratio is clearly in favor of stronger air pollution standards: 43:1 (BAT versus Business as usual) or 19:1 (IED versus Business as usual).**

For coal / lignite only: Compliance to the upper BAT-AEL of the final draft LCP BREF (including the desulphurization rate derogation 320mg) on the lignite / hardcoal fleet by own calculations of ECF consultancy study:

Fuel type	Total CapEx (Million EUR)	Annual costs (Million EUR/a)
Hardcoal	3,086	478
Lignite	1,253	198,2
<b>Total (high estimate)</b>	<b>4,339</b>	<b>676</b>

Benefit / cost ratio (coal/lignite only):

BAT compliance scenario (0.5 years): B 119,9 Bn€ / C 11,44 Bn € = **10,5 : 1**

IED Annex V ELVs compliance scenario (10,5 years): B 80,8 Bn€ / C 11,44 Bn € = **7:1**

**Note: this is an underestimate of benefits since for "costs" LCPs that went into operation after 2013 were integrated (not included in the 2013 damage costs assessment)**

## GREECE

### Benefits of tighter air pollution standards

TNP impact: The externalized health damage costs due to the TNP derogation with 6 LCP entries (4 Lignite plants) accumulates to **1,624 Billion €** (4.5 years), of which 100% is due to 4 Lignite fired LCPs only.

Compliance scenario (7 lignite LCPs)	Annual (avoidable) damage costs (Million€)	Daily (avoidable) damage costs (Million €)
2013 to IED	840	2,3
2013 to BREF	990	2,71
2013 to BAT	1,370	7,21
IED to BAT	530	1,45
BREF to BAT	380	1

From country sheet following info: 6 of the total 7 Greek lignite plants = 88 % of the fleet are in Chapter III derogations = 475 premature deaths each year (2013 data).

The health damage cost per year for these 6 lignite plants is 1 341Million € (2013 data), if they would have required implementing:

- a) BAT levels the annual health damage cost would go down to 174 Million €. This makes an annual difference of + 1 167 Million € in health costs. Since these are all in the TNP/LLD you can multiply simply by 4.5 = **5,3 Billion € extra avoidable damage costs** just for these 6 lignite plants.

You may also consider that the IPPC Deadline (2008) is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the **extra damage cost due to complacent attitude with polluters is 14,6 billion €**

- b) just meeting the IED 2016 limits, the external damage cost figure for these would be 646 Million€. This makes an annual difference of + 695 Million € in health damage costs. Since these are all in the TNP/LLD you can multiply by 4.5 = **3,1 Billion € extra avoidable damage costs** just for these 6 lignite plants.

You may also consider that the IPPC Deadline (2008) is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the **extra damage cost due to complacent attitude with polluters is 8,7 Billion €.**

### Costs and benefits (lignite only)

For coal / lignite only: Compliance to the upper BAT-AEL of the final draft LCP BREF (including the desulphurization rate derogation 320mg) on the lignite / hardcoal fleet by own calculations of ECF consultancy study:

Fuel type	Total CapEx (Million EUR)	Annual costs (Million EUR/a)
Hardcoal	-	-
Lignite	294	45,1
<b>Total (high estimate)</b>	<b>294</b>	<b>45,1</b>

Benefit / cost ratio (coal/lignite only):

BAT compliance scenario (12.5 years): B 14,6 Bn€ / C 0,858 Bn € = **17 : 1**

IED Annex V ELVs compliance scenario (12,5 years): B 8,7 Bn€ / C 0,858 Bn € = **10:1**

**Note: this is an underestimate of benefits since for “costs” LCPs that went into operation after 2013 were integrated (not included in the 2013 damage costs assessment)**

## UNITED KINGDOM

### Benefits of tighter air pollution standards

TNP impact: The externalized health damage costs due to the TNP derogation with 114 LCP entries (the highest for all of the EU) accumulates to **18,1 Billion € / 13,16 Billion GBP** (4.5 years), of which 81% (14,67 Billion€) is due to 8 coal fired LCPs.

Compliance scenario (11 coal LCPs)	Annual (avoidable) damage costs (Million€)	Daily (avoidable) damage costs (Million €)
2013 to IED	4,110	11,3
2013 to BREF	5,230	14,3
2013 to BAT	7,200	19,7
IED to BAT	3,090	8,5
BREF to BAT	1,970	5,4

From country sheet following info: 11 of the total 11 UK coal plants = 100 % of the fleet are in Chapter III derogations = 2,863 premature deaths each year (2013 data).

The health damage cost per year for 11 coal plants is 7 770 € (2013 data), if they would have required implementing:

- a) BAT levels the annual health damage cost would go down to 570 Million €. This makes an annual difference of + 7 200 Million € in health costs. Since these are all in the TNP/LLD you can multiply simply by 4.5 = **32,4 Billion € extra avoidable damage costs** just for these 11 coal plants.  
You may also consider that the IPPC Deadline (2008 is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the **extra damage cost due to complacent attitude with polluters is 90 billion €**
  
- b) just meeting the IED 2016 limits, the external damage cost figure for these would be 3 660 Million€. This makes an annual difference of + 4 110 Million € in health damage costs. Since these are all in the TNP/LLD you can multiply by 4.5 = **18,5 Billion € extra avoidable damage costs** just for these 11 coal plants.  
You may also consider that the IPPC Deadline (2008) is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the **extra damage cost due to complacent attitude with polluters is 51,4 Billion €.**



## Costs and benefits (hardcoal only)

DEFRA stated that meeting the 150mg NOx level is not cost effective for hardcoal plant operators, with their calculation methods and assumptions the cost range would be 17K (15 years) or 13K GBP (annual cost would be 9619 GBP per Tonne abated).

For coal / lignite only: Compliance to the upper BAT-AEL of the final draft LCP BREF (including the desulphurization rate derogation 320mg) on the lignite / hardcoal fleet by own calculations of ECF consultancy study:

Fuel type	Total CapEx (Million EUR)	Annual costs (Million EUR/a)
Hardcoal	1,059	171,3
Lignite	-	-
<b>Total (high estimate)</b>	<b>1,059</b>	<b>171,3</b>

Benefit / cost ratio (coal/lignite only):

BAT compliance scenario (12.5 years): B 90 Bn€ / C 3,2 Bn € = **28 : 1**

IED Annex V ELVs compliance scenario (12,5 years): B 51,4 Bn€ / C 3,2 Bn € = **16:1**

## FINLAND

### Benefits of tighter air pollution standards

TNP impact: The externalized health damage costs due to the TNP derogation (version pre 16 March 2016) with 73 LCP entries accumulates to **3,14 Billion €** (4.5 years), of which 56% (1,75 Billion€) is due to 8 coal fired LCPs

Compliance scenario (10 coal LCPs)	Annual (avoidable) damage costs (Million€)	Daily (avoidable) damage costs (Million €)
2013 to IED	110	0,3
2013 to BREF	150	0,41
2013 to BAT	240	0,66
IED to BAT	130	0,36
BREF to BAT	90	0,25

From country sheet following info: 10 of the total 10 FIN coal plants = 100 % of the fleet are in Chapter III derogations = 97 premature deaths each year (2013 data).

The health damage cost per year for these 10 coal plants is 260 Million € (2013 data), if they would have required implementing:

- a) BAT levels the annual health damage cost would go down to 20 Million €. This makes an annual difference of + 240 Million € in health costs. Since these are all in the TNP you can multiply simply by 4.5 = **1 Billion € extra avoidable damage costs** just for these 10 coal plants.

You may also consider that the IPPC Deadline (2008) is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the **extra damage cost due to complacent attitude with polluters is 12,5 billion €**

b) just meeting the IED 2016 limits, the external damage cost figure for these would be 150 Million€. This makes an annual difference of 110 Million € in health damage costs per year. Since these are all in the TNP you can multiply by 4.5 = **495 Million € extra avoidable damage costs** just for these 10 coal plants.

You may also consider that the IPPC Deadline (2008) is the right timeline to start counting from –personally I take this line- , in this case multiply by 12.5= the **extra damage cost due to complacent attitude with polluters is 1,4 Billion €.**

### Costs and benefits (hardcoal only)

*no data has been provided*

For coal / lignite only: Compliance to the upper BAT-AEL of the final draft LCP BREF (including the desulphurization rate derogation 320mg) on the lignite / hardcoal fleet by own calculations of ECF consultancy study:

Fuel type	Total CapEx (Million EUR)	Annual costs (Million EUR/a)
Hardcoal	286	44,8
Lignite	-	-
<b>Total (high estimate)</b>	<b>286</b>	<b>44,8</b>

Benefit / cost ratio (coal/lignite only):

BAT compliance scenario (12.5 years): B 12,5 Bn€ / C 0,846 Bn € = **14,8 : 1**

IED Annex V ELVs compliance scenario (12,5 years): B 1,4 Bn€ / C 0,846 Bn € = **1.7:1**