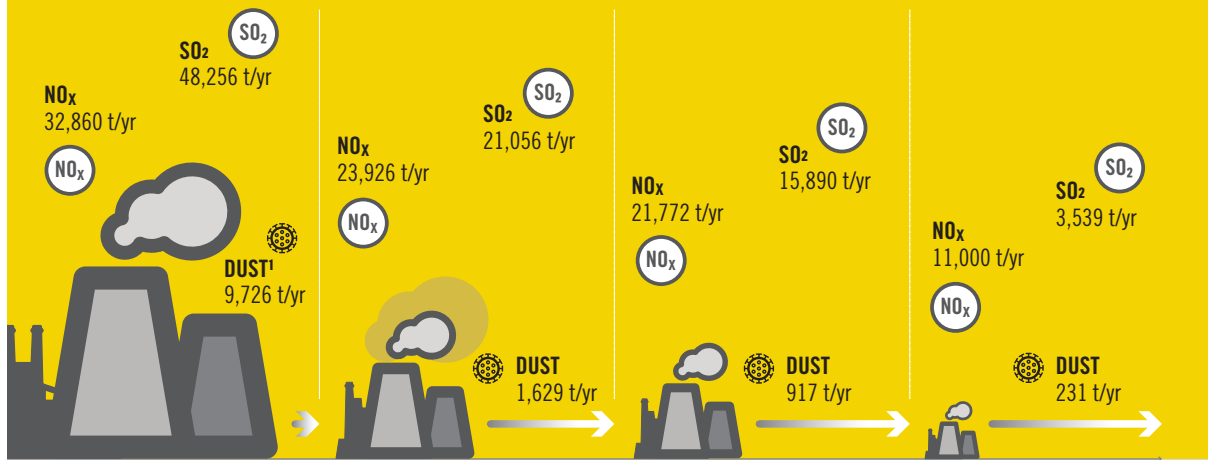


LIFTING GREECE'S DARK CLOUD

HOW CUTTING COAL SAVES LIVES

FIGURE

IMPACT OF STRICTER LIMITS ON COAL POLLUTION IN GREECE



2013 EMISSIONS FROM CURRENTLY OPERATING PLANTS

SO₂ 400mg/Nm³
NO_x 500mg/Nm³
DUST 50mg/Nm³

550
PREMATURE DEATHS

340
CASES OF CHRONIC BRONCHITIS (ADULTS)

149,020
WORK DAYS LOST

18,820
ASTHMA SYMPTOM DAYS (CHILDREN)

€1,560m
TOTAL HEALTH COSTS (MILLION EUROS)
(VSL, HIGH VALUE)
2013 PRICES

2016 IED LIMITS

SO₂ 200mg/Nm³
NO_x 200mg/Nm³
DUST 20mg/Nm³

250
PREMATURE DEATHS

160
CASES OF CHRONIC BRONCHITIS (ADULTS)

70,790
WORK DAYS LOST

9,420
ASTHMA SYMPTOM DAYS (CHILDREN)

€720m
TOTAL HEALTH COSTS (MILLION EUROS)
(VSL, HIGH VALUE)
2013 PRICES

PROPOSED BREF LIMITS

SO₂ 130mg/Nm³
NO_x 175(L)/150(HC) mg/Nm³
DUST 8mg/Nm³

200
PREMATURE DEATHS

130
CASES OF CHRONIC BRONCHITIS (ADULTS)

55,660
WORK DAYS LOST

7,670
ASTHMA SYMPTOM DAYS (CHILDREN)

€570m
TOTAL HEALTH COSTS (MILLION EUROS)
(VSL, HIGH VALUE)
2013 PRICES

BEST AVAILABLE TECHNIQUES (BAT)

SO₂ 10mg/Nm³
NO_x <85(L)/65(HC) mg/Nm³
DUST 2mg/Nm³

70
PREMATURE DEATHS

50
CASES OF CHRONIC BRONCHITIS (ADULTS)

16,140
WORK DAYS LOST

2,730
ASTHMA SYMPTOM DAYS (CHILDREN)

€190m
TOTAL HEALTH COSTS (MILLION EUROS)
(VSL, HIGH VALUE)
2013 PRICES

1 Excluding dust emissions for Melitis (Florina) and Megapoli A.

TABLE DEROGATIONS OVERVIEW (GREECE)

2013 Currently operating plants
IED 2016 IED limits
BREF Proposed BREF limits
BAT Best Available Techniques
LLD Limited Lifetime
TNP Transitional National Plan

COUNTRY / Plant name	Coal type	MWel	PREMATURE DEATHS				Derogation
			2013	IED	BREF	BAT	
GREECE							
Agios Dimitrios	Lignite	1,456	270	106	77	18	TNP
Amintaio	Lignite	546	78	34	25	6	LLD
Melitis (Florina)	Lignite	289	7	7	7	2	TNP
Kardia	Lignite	1,110	94	55	50	12	LLD
Megalopoli A	Lignite	481	10	10	10	11	TNP
Megalopoli B	Lignite	256	16	16	16	13	TNP
TOTAL		4,138	475				

Six out of its seven lignite plants are making use of derogations. This corresponds to **88% of its total coal generation capacity and 475 premature deaths**. Kardia and Aminthaio are in the LLD and all other plants, except Ptolemaida, are covered by the TNP derogation.

Greece had a high share of coal plants in previous derogation systems, such as opt-out derogations and the National Emission Reduction Plan), which ended in 2016.

The Greek TNP lists four LCPs, all of which are lignite fired. This will delay the introduction of IED limits until mid-2020. The following extra pollution could be prevented each year if lignite plants would be withdrawn from the TNP:

TABLE POLLUTION LIMITS (GREECE)

POLLUTANT (in tonnes)	2013 emissions (same plants)	Derogations allow pollution up to	Maximum pollution under 2016 IED limits	Extra pollution allowed each year	TOTAL extra coal pollution allowed due to TNP (2016-Mid 2020)
SO ₂	30,706	34,961	17,482	17,479	78,656
NO _x	18,410	17,482	17,482	-	-
Dust	603	6,505	1,749	4,756	21,402

GENERAL ASSESSMENT OF POSITION TAKEN IN LCP BREF REVIEW RELATING TO COAL:

The Greek authorities have actively lobbied to water down stricter standards for lignite power plants. This does not come as a surprise considering that all representatives of the official Greek delegation were employed by PPC. S.A, the owner of these plants. Greece also pushed more relaxed emission limits for all pollutants.

