

## Running hours during winter 2012/13 for plants opted-out of the Large Combustion Plant Directive (LCPD)

The Large Combustion Plant Directive (LCPD) is a European directive aimed at controlling emissions of sulphur dioxide, nitrogen oxides and dust from large combustion plants. The directive imposes emissions limits on new plants (those licensed after 1<sup>st</sup> July 1987). Plants licensed before this date have three options.

- 1) Meet new emission limits which will require retrofitting of flue gas treatment equipment (i.e. opt-in).
- 2) Opt out limited life derogation – 20,000 hours of operation between 1<sup>st</sup> Jan 2008 and 31st Dec 2015.
- 3) Close before 1<sup>st</sup> Jan 2008.

Data on the running hours of plants opted-out of the LCPD can be downloaded from the following website [www.bmreports.com/bsp/bes.php?prefix=LCPD](http://www.bmreports.com/bsp/bes.php?prefix=LCPD).

Of the 17 coal fired power stations operating in Great Britain at the beginning of 2012, six have opted out, along with the three oil fired stations. A list of these plants is given in table 1. The total capacity of the coal plants opted-out totals 8 GW and comprised just over one-quarter of the coal capacity in Great Britain at that time. Two of the coal plants that opted-out (Tilbury and Ironbridge) have since converted to run on biomass but must still close once their hours have been run.

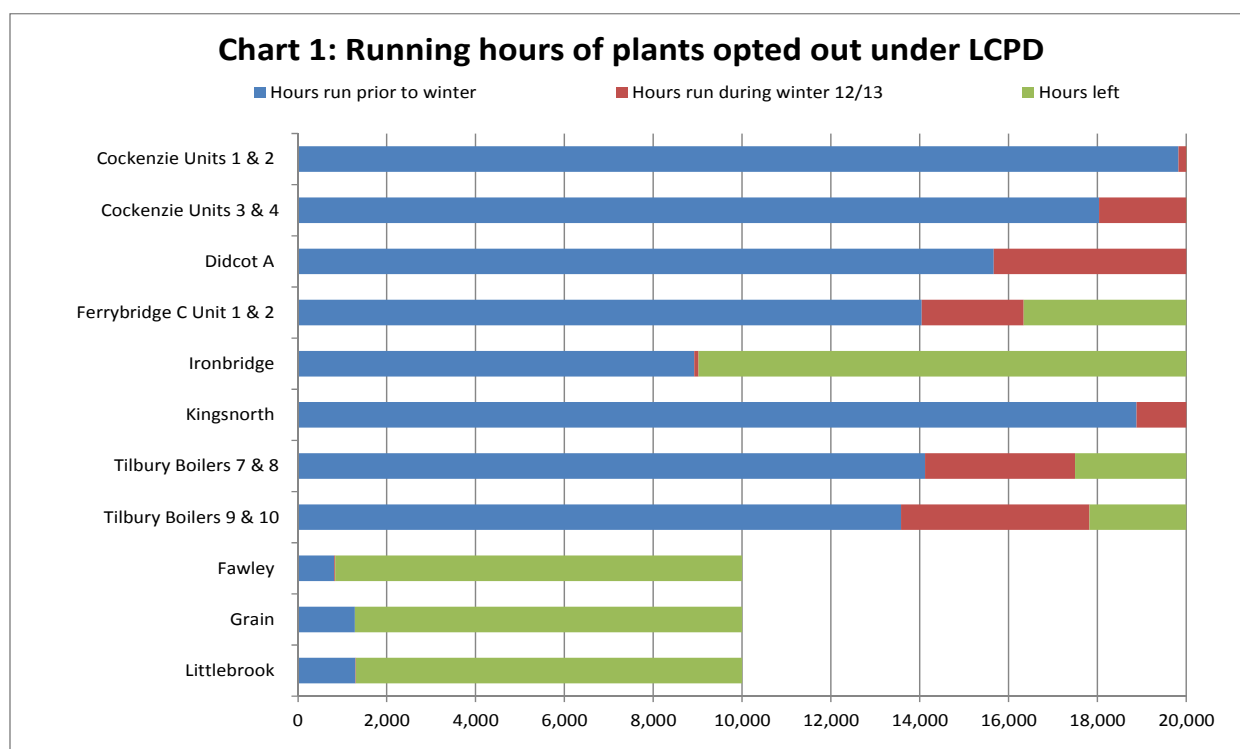
Table 1 shows the hours run during winter 2012/13 by plants which chose to opt-out of the directive (winter is defined as beginning October 2012 – end March 2013). The data are shown in chart form in chart 1.

**Table 1: Hours run during winter 2012/13 by plants opted-out of LCPD**

Plant	Hours run during winter 11/12	Hours run during winter 12/13	Hours remaining	Hours remaining (%)
Cockenzie units 1 & 2	3,080	172	0	0%
Cockenzie units 3 & 4	2,859	1,961	0	0%
Didcot A	3,439	4,331	0	0%
Ferrybridge (1&2)	3,186	2,292	3,663	18%
Ironbridge	803	104	10,977	55%
Kingsnorth	3,021	1,121	0	0%
Tilbury (7 & 8)	1,056	3,378	2,501	13%
Tilbury (9 &10)	955	4,238	2,183	11%
<b>Total (coal)<sup>1</sup></b>	<b>18,399</b>	<b>17,597</b>	<b>19,324</b>	<b>27%</b>
Fawley*	16	19	9,163	92%
Grain*	4	0	8,721	87%
Littlebrook*	22	13	8,695	87%
<b>Total (oil)</b>	<b>42</b>	<b>32</b>	<b>26,579</b>	<b>89%</b>

\* These plants are oil fired and have taken the option of limiting running hours to 10,000. Under this option plants only need to provide sample measurements of SO<sub>2</sub> rather than continuous measurements.

<sup>1</sup> Coal total includes Tilbury and Ironbridge, which converted from coal to biomass during 2011 and 2013 respectively and continue to be opted-out. Although biomass produces almost no CO<sub>2</sub> emissions, the plant will not be exempt from closure at the end of 2015 as the LCPD relates to particulate matter and sulphur dioxide/nitrogen oxide emissions.



In total the plants opted-out of the LCPD ran for 17,628 hours during winter 2012/13, of which 28 per cent occurred in January (5,000 hours). This compares to 18,441 hours during the winter of 2011/12.

Didcot A and Tilbury ran the most hours during winter 2012/13. Didcot A used up its allowance of 20,000 hours and closed on 22 March 2013. Kingsnorth and Cockenzie also used up their remaining hours during winter 2012/13. Tilbury has used up nearly 90 per cent of its allowance. Of the plants that were coal fired at the beginning of the derogation period, Ironbridge has the most hours remaining with over half of its allowance left to use (55 per cent), and did not run from February 2012 to January 2013, while it was being converted to run on biomass instead of coal. Table 2 summarises the operational status of the plants opted-out of the LCPD.

**Table 2: Capacity and current operating status of plants opted-out of LCPD**

Plant	Capacity <sup>2</sup> (MW)	Current Status
Cockenzie units 1 & 2	1,152	Closed March 2013
Cockenzie units 3 & 4		
Didcot A	1,958	Closed March 2013
Ferrybridge (1&2)	980 <sup>3</sup>	Open (expected to close during 2013/14)
Ironbridge	940	Open
Kingsnorth	1,940	Closed December 2012
Tilbury (7 & 8)	750	Open (expected to close in 2013)
Tilbury (9 &10)		
<b>Total (coal)</b>	<b>7,720</b>	
Fawley*	968	Closed March 2013
Grain*	1,300	Closed December 2012
Littlebrook*	1,370	Open
<b>Total (oil)</b>	<b>3,638</b>	

<sup>2</sup> Source: DUKES 2013, table 5.11, at: [www.gov.uk/government/publications/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes](http://www.gov.uk/government/publications/electricity-chapter-5-digest-of-united-kingdom-energy-statistics-dukes)

<sup>3</sup> Ferrybridge units 3 and 4 (which also have a combined capacity of 980 MW) are opted in to the LCPD and will continue to run after 2015.

### *Special feature – Large Combustion Plant Directive*

As oil fired power stations tend to be used infrequently they still have a high proportion of their hours remaining despite only having an allowance of 10,000 hours. However, for economic reasons Fawley and Grain closed during the winter 2012/13 period.

DECC energy statistics show that during the winter of 2012/13 coal generation increased by 8 per cent compared to the same period one year earlier (from 71.8 TWh to 77.5 TWh<sup>4</sup>). Looking at the running hours for the coal plants that have opted out of the LCPD (excluding Tilbury and Ironbridge that have converted to biomass), the running hours for these plants were lower during the 2012/13 winter, 9,877 hours compared to 15,584 hours in 2011/12, as several of these exhausted their allowance during the time. As such, the increase in coal generation during the winter of 2012/13 was due to plants that had opted-in to the LCPD.

From 1<sup>st</sup> January 2016 the remaining large combustion plants will be subject to more stringent emissions controls outlined in the Industrial Emissions Directive (IED). Plants that chose to opt-out of this directive will be limited to 17,500 hours between 2016 and 2023.

### **User feedback**

We welcome all feedback from users; therefore, if you have any comments or queries regarding this analysis, please contact either Chris Michaels or Alison Judd using the contact details below.

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<sup>4</sup> Source: Energy Trends, table 5.4, at: [www.gov.uk/government/publications/electricity-section-5-energy-trends](http://www.gov.uk/government/publications/electricity-section-5-energy-trends)