

## APPENDIX 1: DRAFT RENEWABLES OBLIGATION (AMENDMENT) ORDER 2013

Further information from DECC

*Q: How does the Renewables Obligation (Amendment) Order 2013 extend the lives of some existing coal generating plants?*

A: The Government response to the consultation on proposals for the levels of banded support under the Renewables Obligation for the period 2013-17 and the Renewables Obligation Order 2012 set out a number of decisions regarding the full or partial conversion of coal-fired power stations to generate biomass renewable electricity supported by the Renewables Obligation. This included the creation of new bands (see table below) and adoption of a unit-by-unit approach for the co-firing and conversion bands.

Band	Description	Support Level (ROC/MWh)
Low-range co-firing of biomass	Less than 50% biomass co-fired in a unit	0.5 (reduction to 0.3 in 2013/14 and 2014/15, increasing to 0.5 from 2015/16)
Mid-range co-firing of biomass	50% - less than 85% biomass co-fired in a unit	0.6
High range co-firing of biomass	85% - less than 100% biomass co-fired in a unit	0.7 (increasing to 0.9 from 2014/15)
Biomass conversion	Electricity generated by a unit using 100% biomass	1.0

The conversion of existing coal generating plant to biomass or higher levels of biomass co-firing is a way of keeping open some existing coal plant that would otherwise close before 2016 under environmental legislation, and therefore improve capacity margins over this decade. According to Ofgem's Electricity Capacity Assessment 2012, generating margins are expected to tighten significantly from around 15% this winter to 4% in 2016 due to the closure of old nuclear plant and coal generators affected by environmental measures. We estimate that the banding levels proposed for these technologies could enable capacity equivalent to approximately 3-4% of the capacity margin to remain in operation, which is potentially significant.

Of the current UK coal capacity, some 8 GW has "opted-out" of the Large Combustion Plant Directive (LCPD), an air quality Directive which places limits on emissions of sulphur dioxide and nitrogen oxides. This opted-out capacity is required to close by the end of 2015 at the latest, with around 5 GW expected to close by end of March 2013. The remaining capacity (~20 GW) will need to comply with the Industrial Emissions Directive (IED), which replaces the LCPD and sets more stringent emissions limits from 1 January 2016.

Similar to the LCPD, plant operators have options available to them which, if equipment is not fitted to meet the emissions standards set by the IED, essentially limit the remaining lifetime and or future operation of a plant.

The availability of support under the Renewables Obligation for coal plant to convert all or part of their combustion to biomass may therefore provide generators an alternative means to decarbonise and to reduce emissions in order to meet the requirements of IED. This will very much depend on the type and age of the plant, and as such will be an operational decision for individual generators to make. This option is available to both opted in and opted out plant under both LCPD and IED. A plant which has opted out of LCPD can decide to

refurbish and re-open as a biomass conversion, meeting the new emission requirements of IED. Such an approach would offer a more cost-effective means of supplying base load generation than new build.

Both the Committee on Climate Change's Bioenergy Review and DECC's 2012 Bioenergy Strategy concluded that both conversion and enhanced co-firing with biomass offer a quick, cost-effective way to decarbonise existing coal-fired power stations, based on current sustainability requirements.

*Q: If those plants are being allowed to continue to use coal, for how long?*

A: Generating stations may continue to use coal but those wishing to access the low-range, mid-range or high-range co-firing biomass bands must use biomass alongside coal at the relevant thresholds specified in the table above. Otherwise they fall back into a lower band, receiving less support, until they raise their use of biomass above the relevant threshold again. The definitions for the co-firing bands, including the relevant thresholds are set out in article 24 of the instrument, which amends Part 1 of Schedule 2 to the Renewables Obligation Order 2009.

As indicated in the Explanatory Memorandum accompanying the draft amendment Order, article 4 of the instrument removes the existing co-firing cap in order to encourage the increased use of biomass in place of fossil fuel.

*Q: What controls are in place to ensure that those plants use renewable fuel from a given date?*

A: Support is only available under the Renewables Obligation for electricity generated from renewable sources. Where a station generates electricity from a mixture of renewable and fossil fuel sources, such as biomass and coal, the energy content of each fuel is used to determine the proportion of the output electricity that can be treated as having been generated from renewable sources (see article 25 of the Renewables Obligation Order 2009, which is to be amended by article 7 of the instrument).

Ofgem are responsible for issuing renewables obligation certificates (ROCs), but before they do so they use their powers in article 53 of the Renewables Obligation Order 2009 (provision of information to the Authority) and article 36 of that Order (general criteria for the issue of ROCs) to obtain the information necessary to be satisfied that the station is eligible for the ROCs and has provided accurate and reliable information.

**DECC**

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