



**Reform of the Renewables Obligation and Statutory Consultation
on the Renewables Obligation Order 2007
Part 2**

An Energy Review Consultation

A Response by Drax Power Limited

December 2006

Drax Power Limited

Drax Power Limited is the operating subsidiary of Drax Group plc, and the owner and operator of Drax Power Station in North Yorkshire. Drax Power Station is the largest, cleanest and most efficient coal-fired power station in the UK. At current output levels its coal and alternative fuel burn approaches some 10 million tonnes per annum, and its six 660MW units supply some 7% of the country's electricity needs.

Drax Power Station was commissioned in two phases: the first 1,980MW were commissioned in 1974 and the second 1,980MW were commissioned in 1986. As the newest of the country's existing coal-fired power stations, Drax intends to be operating at high load factors in 20 years' time, provided that the regulatory framework encourages and sustains the necessary investments in environmental abatement equipment and plant upgrades.

All six of the Power Station's units are fitted with flue gas desulphurisation (FGD) technology, which removes, on average, at least 90% of the sulphur dioxide (SO₂) from the flue gases. All units have been retrofitted with low NO_x (oxides of nitrogen) burners, and emissions of NO_x are being further reduced through retrofitting boosted over fire air (BOFA) technology. On completion of the BOFA technology retrofit, Drax Power Station will be fully compliant with the 2008 requirements of the Large Combustion Plant Directive (LCPD), but large investments will be required to ensure that the plant is compliant with the 2016 requirements.

Over the last two and a half years, Drax has developed the capability to co-fire, that is, blend and burn, renewable biomass materials with coal. For the first quarter of this year, Drax was achieving throughputs of biomass material of around 2.5% by heat, and as a consequence reducing its emissions of carbon dioxide (CO₂) at a rate of almost half a million tonnes each year. There is the scope to develop this technology still further and significantly increase biomass throughput and hence CO₂ savings. In addition, Drax has also identified technology options that could assist in improving the thermal efficiency of the plant taking it to environmental performance levels approaching those of current gas-fired plants.

INTRODUCTION

1. We have been active in contributing to the Government's consultations on the Renewables Obligation and the recent Energy Review and welcome the further opportunity to comment on the statutory consultation on the Renewables Obligation Order 2007. We firmly believe that the changes proposed are necessary to develop a consistent, integrated policy which builds the UK capability for biomass production in a sustainable manner.

2. Drax has an ambition to further develop its co-firing technology and build a long term presence in the renewable energy market. Current aspirations are to generate 10% of the Station's output from renewable biomass materials by the end of 2009, provided that there is confidence in the economics.

3. Drax's response to the statutory consultation concentrates on the urgent need to reverse the current reduction in biomass co-firing as a result of the changes to the co-firing regime implemented in April 2006 and on the proposal to allow unlimited co-firing of energy crops (Questions 57-58 of the statutory consultation).

NECESSITY FOR CHANGE

4. Co-firing biomass has emerged as a credible renewables technology and is a proven and effective way to reduce emissions of carbon dioxide (CO₂), but, without changes to the current regulations, development of the embryonic biomass market will be thwarted and a real opportunity to reduce CO₂ emissions will be lost. The current constraints around the Renewables Obligation (RO) do not provide the necessary impetus to develop biomass /energy crops in the volumes anticipated or desired by Drax. Indeed, the current regulations governing co-firing have already constrained this activity and preparations for its future expansion.

5. Biomass is generally at least three times more expensive than coal once all factors are considered, including transport as well as processing the fuel. Hence access to a combination of Renewables Obligation Certificates (ROCs) and carbon credit is critical to continued co-firing.

6. Figure 1 below indicates the extent of co-firing at Drax since January 2005 and demonstrates that, from April 2006, the reduction in the amount of biomass co-fired fell markedly in response to the reduction in the value of co-fired ROCs in the 2006-07 compliance period and the lack of price transparency.

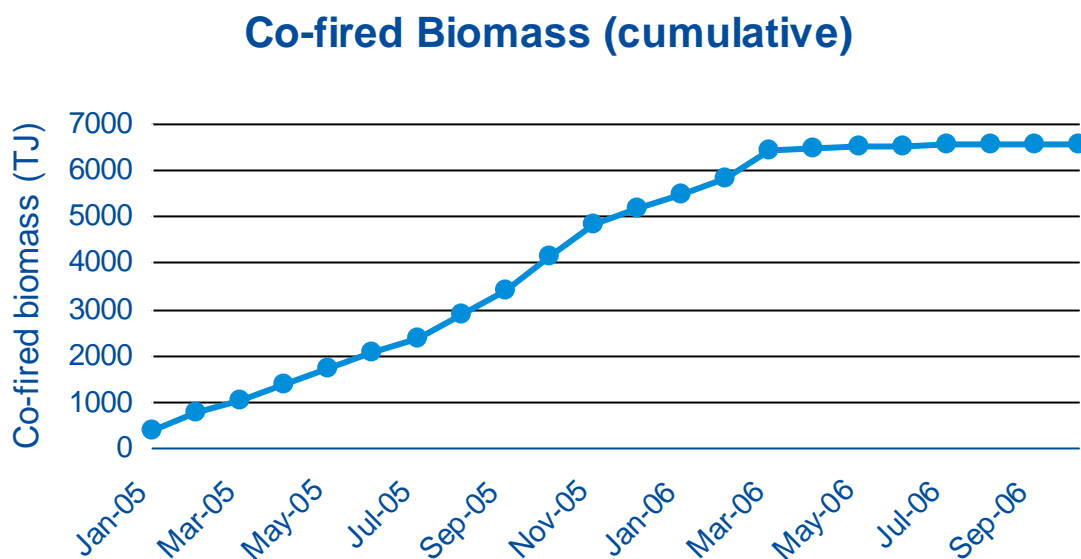


Figure 1 Co-firing at Drax Power Station

7. This highlights the fundamental flaw in the current RO regime. The potential to co-fire biomass across the industry at a rate which exceeds a cap has resulted in a loss of confidence, a reduced biomass throughput and a slow-down in investment and development. The reduction in value of co-fired ROCs from April 2006 has had serious impacts, not only on the ability of Drax to co-fire biomass and to invest in the technology for co-firing biomass into the future, but also on the confidence of farmers to contract biomasses for co-firing, particularly where these farmers are planting long term energy crops.

8. As a result of efforts over the last few years, Drax has initiated a sizeable energy crop programme, entering into energy crop contracts on the basis of the continuation of the RO

mechanism. Unless confidence in the long term stability of the ROC regime can be restored, these farmers will not contract for energy crops in the long term.

9. It is regrettable that the well-meaning energy crop policy set up within the RO has not been as effective as intended. It is essential that changes are made to the RO in the near future in order to reverse the current downturn in throughput and encourage further energy crop planting and deliver further CO₂ emissions reduction.

10. It is necessary to remove the uncertainty of access to ROCs as a result of the current volume caps and thereby enable greater volumes of biomass to be contracted as well as restore the short-term incentives to invest in energy crop development. The current oversupply in co-fired ROCs is a potent indicator of the potential difficulty of trying to set volume caps in this sector, particularly when the vertically integrated generators have little incentive to develop energy crops and every incentive to drive co-fired ROC prices down.

PROPOSED CHANGES TO RENEWABLES OBLIGATION

11. Changes to the RO regime in the immediate future are necessary to build confidence and encourage investment by generators, such as Drax, in energy crop production.

12. Specifically, Drax believes that all volume constraints on co-fired ROCs in the current RO should be removed. The most effective means of encouraging the long term development of energy crops would be through the removal of the limits on the eligibility for co-firing to earn ROCs (10% up to 2011, 5% from 2011 to 2016 and 0% from 2016 onwards). ROCs for co-firing should be made available on the same basis as ROCs for stand-alone biomass boilers.

13. A critical element of this is that, given the length of time required to grow energy crops, the timescale for co-firing is extended beyond 2016.

14. The statutory consultation falls short of the full removal of the constraints, but, nevertheless proposes removing constraints on energy crop co-firing. Drax fully supports this proposal and is firmly of the view that removing current constraints around energy crop co-firing would helpfully reduce some of the associated commercial risks and would encourage the planting of substantial further volumes.

ENERGY CROP DEFINITION

15. The current definition of energy crop is inflexible and needs to be reviewed if the UK is to fully utilise additional sources of energy crops. Whilst it is recognised that the proposal outlined below is unlikely to be implemented through the Renewables Obligation Order 2007, the issue is raised as one that is worthy of consideration over the coming year, with a view to implementing change from April 2008.

16. The biomass market is a dynamic one and is rapidly changing as new sources of energy crop become available. In particular, the extent of the biodiesel and bioethanol plants projected for construction in the next few years could add an additional one million tonnes of residue (rape meal /DDGS) to the energy crop market. It is critical that residues from such plant are defined as an energy crop for the purposes of the RO. This will allow co-firers to use/contract for the residue output, contributing to the viability of its operation.

17. It is understood that Ofgem intends the residues to be counted as energy crops where the corresponding rape oil or bioethanol is used as a feedstock for biofuel production. However, the current energy crop definition and audit procedures set out in Ofgem guidance do not fit well with current UK agricultural practices for annual crops.

18. The guidance states that *“the main intended purpose, at (or, in exceptional circumstances, very shortly after) the time of planting, for the crop must be for use as a fuel.”* This guidance works well for perennial crops, such as short rotation coppice, which are fully contracted at the time of planting. However, it is difficult to implement for UK-grown annual crops such as rape seed or wheat. Although farmers may plant these crops intending to sell them as a fuel, they do not typically contract to do so. Instead they prefer to maintain the flexibility to sell opportunistically into an open market where the price seasonally fluctuates over time from the date of the harvest.

19. Drax believes this mismatch between current practice and Ofgem-required practice deserves attention. The current guidance needs to be far more flexible and needs to reflect market practice if the full benefit of this additional biomass source is to be realised. It is important that residues from material used in a biofuel plant can be categorised as energy crop.

20. Drax advocates the EU-defined concept of ‘equivalence’, whereby a co-firer would contract for a volume of fuel prior to harvesting, but the actual origin of the material would not be known until harvesting/subsequent delivery. Under such a regime the spirit of the energy crop regime would be maintained and, importantly, so would the level of certainty.

CONCLUSIONS

21. In summary, Drax draws the following conclusions:

- Co-firing has emerged as a credible renewables technology and one that should enjoy long term support if the environmental benefits are to be realised and a UK biomass supply chain developed.
- The current co-firing regime does not support the development of co-firing and requires changes to reverse the current downturn in co-firing activity and encourage further energy crop planting and, as a result, deliver further CO₂ emissions reduction.
- All volume and eligibility constraints should be removed from co-fired ROCs. Drax fully supports the proposal to remove the current constraints around energy crop co-firing as a step in the right direction.
- Current energy crop definitions are inflexible and do not reflect current market practice for annual crop contracting. The annual crop market represents a significant source of energy crop material which should be fully utilised. The energy crop definition should be reviewed over the coming year.