

## Wood Panel Industries Federation response to Electricity Market Reform consultation

17. How should biomass be treated for the purposes of meeting the EPS? What additional considerations should the Government take into account?

According to the Biomass Energy Centre, managed by the Forestry Commission, the direct CO<sub>2</sub> emissions from combustion of wood chip for electricity in a large-scale plant are 2100 kg/MWh. The direct CO<sub>2</sub> emissions for the combustion of hard coal are 345 kg/MWh.

It should be noted that the approximate life-cycle CO<sub>2</sub> emissions for large-scale electricity production utilising biomass are 58 kg/MWh compared to hard coal's 484 kg/MWh. However, this figure of 58 kg/MWh is wholly dependent on the replanting of new trees to produce fresh biomass. New plantings would require around 30 – 40 years before they had absorbed the carbon initially released in the combustion of biomass. Therefore, in the short to medium term, new large-scale biomass plants will massively increase carbon emissions.

Given this life-cycle, without carbon capture and storage technology in place, the proposed new generation of large-scale electricity-only biomass power plants will not be operating on a carbon neutral basis by 2030 – the point at which the Committee on Climate Change says that the UK will need to have decarbonised its power sector.

Whilst the WPIF accept the conclusions of the Biomass Energy Centre that burning biomass is nearly carbon neutral – shipping and phytosanitary requirements add significant carbon – over the life-cycle compared to fossil fuels, it is still the case that, compared to wood panelboard production, electricity produced from the burning of biomass is a significant source of carbon dioxide.

The comparison of carbon emissions between electricity from biomass and panelboard manufacture is vital because of the combination of an extremely tight supply of domestic wood and the distortion of the wood market caused by the Renewables Obligation. The UK wood panel sector is entirely reliant on domestic sources of wood (virgin and recycled fibre). The Renewables Obligation gives biomass energy companies much greater purchasing power in a market experiencing supply problems. Therefore, if the current subsidy regime remains, displacement of both the wood panel industry and the important contribution it makes to both carbon sequestration (in wood products) and renewable heat (it is the largest industrial sector generator in the UK) will be displaced.

Given the much greater carbon emissions arising from the combustion of biomass in the short to medium term, an EPS is essential for meeting the emissions targets set

to take place under the EU ETS. Without Emissions Performance Standards, the continued development of large-scale electricity-only biomass plants will result in vastly increased levels of carbon dioxide being produced in the UK.

At present, large-scale electricity-only biomass power producers can merely promise to invest in replanting forestry or defer their obligation to account for their carbon emissions by relying on forestry companies to manage a sustainable supply of feedstock. In effect, there is no guarantee that carbon neutrality will be achieved, even in the long term.

Large-scale growth of biomass usage for electricity production will not only be detrimental to the wood processing industries, including the sawmills. It will likely start to put greater pressure on land presently used for farming food crops, both in the UK and abroad. The UK needs to make reductions in its carbon emissions in the short to medium term. The large-scale production of electricity from biomass will, in this timeframe (10-20 years – i.e. 2020 and 2030 targets), lead to a significant rise in carbon emissions.

33. Do you have view on how market distortion and any other unintended consequences of a FIT or a targeted capacity mechanism can be minimised?

The WPIF has long argued the case that the Renewables Obligation has had the unintended consequence of distorting the UK's wood market. Several factors have contributed to this distortion:

- Demand for UK wood has outstripped – or, for some materials, will soon outstrip – economic availability.
- Energy crops have not been planted in significant volumes, despite generous incentives for a decade.
- The scale of biomass plants is huge – Port Talbot's Prenergy plant will burn around 3m green tonnes of wood per annum, with no guarantees that this material will be exclusively imported.

A FIT that supports electricity generation alone from biomass at similar levels to the RO would have the same impact on the wood market. The consequences of the impact are extremely serious for the wood processing industries, and are only compounded by the introduction of a Renewable Heat Incentive that does not support the industry's existing renewable heat generation (the largest in the UK).

It is not acceptable for the Government to respond to these concerns by stating that it is not the "intention" to affect the price of wood. It must take responsibility for the consequences – intended or unintended – of its policies. This is an ideal opportunity to remove or at least significantly reduce this market distortion.

The best way to end market distortion and to achieve the best environmental outcomes is to end support for electricity only generation from wood and exclusively

support GQCHP, heat generation and EfW. This will ensure high efficiencies and greatly reduce the impact on wood processors, who play a vital role in carbon abatement through the manufacture and recycling of low-carbon, sustainable construction and furniture materials.

The Government should resist pressure from co-firers for greater subsidy and the removal of the cap for this established technology. Removal or raising of the cap for co-firing would have a catastrophic impact on the wood panel industry, which is totally reliant on UK wood.

The Government has often stated that wood processing industries will not be affected by biomass energy because such power plants – when sourcing material domestically – would consume peripheral and contaminated waste material. This is simply not the case. Neither wood stream is sufficiently large to support the vast scale of demand – nor is it the case that power plants will burn contaminated waste wood (that material currently going to landfill) because of the need for, and added expense of, compliance with the Waste Incineration Directive.