Sustainability Committee

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Inquiry into biomass in Wales

Response from the Confederation of Forest Industries

Thank you for the opportunity to submit a comment to this enquiry.

ConFor (the Confederation of Forest Industries) has been established to represent forestry and wood using businesses from nurseries and growers to wood-processing end-users. ConFor aims to help build the market for timber and timber products, create a supportive policy environment for the forestry and wood using sector and to help members become more competitive and successful.

ConFor actively promotes the important role that forests and wood can make to a low-carbon economy and has encouraged the development of markets for wood, as well as an increased supply of wood from Wales' forests, recognising the economic, environmental and recreational benefits that will bring.

Wood is an infinitely renewable material, but supplies at any one point in time will be finite. Where supply may exceed demand it is important to ensure that government incentives for using wood do not result in perverse outcomes and see wood being utilised for a reduced carbon and jobs benefit.

In terms of carbon and jobs the most efficient way to use wood is in its solid form. This means the carbon in harvested wood should remain locked up as long as possible and be reused and recycled, all the time substituting for materials such as brick, concrete, steel and plastics which use more carbon in their production. At the end of its useful life, wood can be burnt for energy.

Not all wood can be used in this way, for example, because there is no local market or it is of insufficient quality. In such cases wood for renewable energy can provide real carbon and job benefits. However, these benefits are far greater if the wood is burnt for heat or CHP in markets local to supply, keeping travel costs and carbon emissions down.

Large-scale biomass for electricity provides the lowest carbon and jobs benefit. Local heat and CHP installations are typically 80-90% efficient in converting wood to energy, whereas large-scale, biomass-for-electricity plants are only about 30% efficient.

Supply and demand of biomass fuel in Wales

In Wales there is an existing wood-using industry that successfully and sustainably utilises most of the wood available in Wales. It employs 10,000 directly and contributes nearly a billion pounds to the Welsh economy (2006 cebr report for Forestry Commission and ConFor).

The industry is similar to the rest of the UK in that it is built around Wales' softwood resource, which Wales is internationally competitive in. The hardwood resource is largely unmanaged reflecting the lack of international competitiveness and the generally poor quality of the timber.

The growing renewable energy market is providing a valuable market for wood from Wales' unmanaged forests. This has principally focused around local heat and CHP with government incentive mechanisms such as WEBS (it is understood that the wood biomass applications under the Community Scale Renewable Energy Generation scheme will be passed over to WEBS) and the forthcoming Renewable Heat Incentive. It is understood that the Feed In Tariff will not apply to woody biomass.

There is scope for the further growth of local heat and CHP, within the overall balance of supply and demand for wood in Wales, in particular if public-private activities can stimulate further wood production.

The major question mark over this scenario is the development of large-biomass plants.

In February the UK government forecast the construction of biomass energy facilities with a total capacity of 21- 27 million tonnes of biomass per year. Some of this would come from waste and some from overseas. (See Parliamentary Question attached).

In response to concerns about a future imbalance in supply and demand, ConFor, the UK Forest Products Association and the Wood Panel Industries Federation jointly commissioned independent consultants, John Clegg Consulting Ltd to look into wood fibre availability and demand in Britain from 2007 to 2025.

The Clegg report concludes that the development and expansion of large-scale biomass power plants could have a very significant impact on existing wood supply and utilisation. This would have serious repercussions for existing businesses using wood, as well as for the emerging local heat and CHP market - both of which provide a higher carbon and jobs benefit than large-scale biomass.

Many of the proposed large-scale biomass power stations plan to ship in imported fuel. This has implications for the energy security of Wales and added carbon impact through the transportation process.

If all the biomass power stations that are in the planning stages are built then a doubling of the international trade in biomass would be required to satisfy demand in Britain, and the UK would become the biggest wood importer in the world, even ahead of China.

As demand for wood is set to significantly exceed domestic supply, building large-scale wood power stations will mean that one or other of Wales' objectives for energy policy will be compromised - either energy security or carbon reduction.

In effect, Wales will have to rely on imported wood as other nations look to promote similar technology and secure tradable supplies of biomass, or the plants will look to secure domestic supply displacing businesses in the milling and local energy sectors that deliver greater carbon and jobs benefit.

Stimulating the increased production of biomass feedstocks within Wales

It is clear that there is a real likelihood of demand for wood exceeding supply and consequently for wood-using businesses to be displaced as large-scale biomass plants come on stream.

Beyond existing units there are planned new wood energy plants' wood fibre with demand for approximately 200,000 tonnes per annum. The use of a mixture of wood fibre sources is planned, although a significant proportion is expected to be coniferous roundwood and recovered wood.

The potential wood fibre imports from outside Wales are approximately 5.5 million tonnes per annum. This material may be wood chips or pellets.

The Clegg report examines options to increase supplies of woody biomass and concludes that there will not be enough to meet the demands of existing wood-using businesses and large-scale biomass plants. It did not specifically examine demand from local heat and CHP, though clearly that will be affected negatively as well by large biomass.

There is action that the Welsh Assembly can take to bring more biomass to market.

New planting

ConFor welcomes the Minister for Rural Affairs' announcement of 100,000 new hectares of woodland over the next 20 years and urges the Sustainability Committee to ensure that these woodlands will be productive, ie they will be sustainably managed and, when mature, produce enduring, sustainable supplies of wood that will help pay for their continued management and feed into the growing low-carbon market for wood. Wales has enough unmanaged woods already.

Unmanaged woodland

The Welsh Assembly should act to bring unmanaged woodlands into management as stated in the new Woodlands for Wales strategy. It is important to make best use of the resource that is available at the moment.

Woodlands are unmanaged for a number of reasons. For example, the timber value is less than the cost of extraction, access is difficult, and there are no extraction tracks / roads. In the case of farm woodlands, the wood may be used for the grazing of sheep or there may simply be a lack of forestry management knowledge or of where to go to get help.

As demand for wood increases, so will the price. Some of these woodlands may become managed. However, this will not happen soon enough to satisfy new demand and could inhibit growth.

Action to stimulate supply from new and existing forests

The Welsh Assembly Government can help the sector contribute towards climate change targets by making the process of establishing and managing a forest simpler and recognising the low risk nature of forestry activities. Indeed, there should be a presumption in favour of planting.

Better Woodlands for Wales, the forestry grant scheme, does provide grant aid for tracks in forests, but this has been eroded over the years. Building the extraction infrastructure is costly, but will add value to the woodland over many years.

It is important that the Welsh Assembly Government understands the vital contribution that sustainably managed softwoods make to Wales' economy, biodiversity and landscape. The Woodlands for Wales strategy document acknowledges that three quarters of the requirements for sawmills in Wales comes from Welsh forests and an estimated two thirds of the timber produced remains in Wales. The Read report "Combating Climate Change - A Role for UK Forests" identifies that softwoods provide the most cost effective and greatest carbon abatement.

Investment in well-managed, productive softwood and mixed forests would be the most effective way of meeting future demands of solid timber and biomass.

Stimulating the sawmilling industry

Stimulating the sawmilling industry in Wales, for example by encouraging the use of wood in construction, would provide benefits by sequestering more carbon in timber products and by increasing the availability of sawmill co-product that could be used for local energy production, including on site .

Sawmills in Wales are looking to use their own material to power boilers on site. The heat will be used for kiln drying and heating. Clifford Jones in North Wales have invested and received support from WEBS 1 for a pellet manufacturing facility.

Waste wood

Too much useable wood still goes into landfill. In 2008, 2 million tonnes of wood was recycled but this was only 40% of the total. The vast majority of waste wood is generated by construction and demolition, commercial and industrial including furniture manufacture and joinery, and municipal wood waste from civic amenity sites, waste transfer stations and households. More needs to be done with this valuable resource.

Agricultural crops

Much research has been done on agricultural fuel crops and willows.

There are boiler technical problems with burning miscanthus and not all land will be suitable for willow. The land owner needs to be confident that the high initial investment will be worthwhile once the crop is harvested.

John Valentine of IGER is particularly knowledgeable on the matter.

Conclusion

There is action that the Welsh Assembly can take to bring more biomass to market, but it will not be enough to meet all the demands for it. Therefore, ConFor would recommend that the Welsh Assembly focus on increasing supplies of wood and ensure that large-scale biomass plants do not undermine the contribution that an important, but finite resource can contribute to a low-carbon future for Wales.