SUBMISSION FROM BSW TIMBER

Targets
Are the 2020 renewables targets (for electricity and heat) achievable? If not, why not?

What contribution will achievement of the 2020 renewables targets make to meeting Scotland’s CO2 emissions targets (a reduction of at least 42% by 2020 and an 80% reduction target for 2050) under the Climate Change (Scotland) Act 2009?

Will increase in demand from electric heat and transport be offset by efficiencies elsewhere?

Has the Scottish Government made any estimation of the overall costs of achieving the targets, and identified which parties will bear them?

BSW appreciates the Scottish Government’s acknowledgement of the need to ensure that biomass uptake takes into account existing users of the biomass resource and does not disadvantage them. We welcome the Scottish Government’s recognition of the importance of the timber processing industry and the employment that it generates in rural areas, in the 2020 Routemap for Renewable Energy in Scotland.

In the Routemap the Scottish Government rightly highlights the need to ensure that market mechanisms deliver the right level of support and that current incentives are encouraging large scale biomass electricity schemes instead of supporting the most efficient use of biomass: renewable heat generation. The Government also recognises the need to ensure that any new incentives, particularly the Renewables Obligation (RO), do not unfairly penalise existing wood users. These are important costs that must be addressed when implementing action to meet Scotland’s renewable energy targets and it is positive that the Government has noted them early on. However, there are other areas that must also be fully considered in terms of costs to wood processors that could potentially arise as a result of efforts to meet Scotland’s renewable energy targets.

One significant area of concern for the industry is the RO and the distorting impact it has had on the wood market in recent years. In the last five years the price of standing timber has risen by 59%. The only new entrant into the market in this time has been the energy sector which has been taking advantage of Government subsidies. This market distortion and resulting price rise is therefore a direct outcome of the increased use of biomass. BSW welcomes the Scottish Government’s decision to move away from supporting subsidies for large-scale electricity only biomass plant. We urge the Scottish Government to go further in its assessment of the costs associated with using biomass to meet its renewable energy targets in order to protect the forest industries, save taxpayers money, and support only the most efficient and environmentally sound means of energy generation.

To ensure that only the most environmentally sound means of energy generation are being supported, and the carbon hierarchy is being maintained, we would
recommend that the Scottish Government update the existing sustainability criteria to consider the full life-cycle emissions of biomass feedstocks. This should include consideration of the carbon savings of alternative uses of feedstocks. Wood products, such as sawn timber, offer significant carbon savings, in terms of sequestration and as a low carbon building material. This alternative use of the feedstock must be considered in sustainability criteria, to give the fullest possible picture on carbon benefits.

Wood is unique amongst renewable energy sources – whilst it is renewable, it is also finite. The RO in its present form is far too blunt an instrument, as it does not recognise the unique nature of wood in comparison to other sources of renewable energy. Unlike other renewable energy sources wood has a growing cycle; it takes 30-40 years for a tree to grow to maturity. If this tree is then burnt, it cannot be used again. Similarly wood also has other commercial uses; before being burnt it can be used, reused and recycled to make countless products which then continue to store carbon. Wood should only be burnt in large scale electricity only plants once it has reached the end of its useable life. BSW therefore welcomes the Scottish Government’s support for the use of biomass through heat only and CHP plants as this is far more efficient and environmentally sound, yet it is important that any subsidies for these uses do not distort the wood market as the Renewables Obligation has done.

Challenges
(a) Technology
Is the technology to meet these targets available and affordable? If not, what needs to be done?

Are electricity generating or heat producing technologies compatible with the need for security of energy supplies?

Are our universities and research institutes fully geared up to the need for technological development, innovation and commercialisation?

(b) Supply chain and infrastructure
Is the supply chain in Scotland in place to meet the targets?
The Routemap raises concerns about the sustainability of the supply of wood feedstocks for biomass. The document states that ‘Given the multiple energy uses to which biomass can be put, the limits to supply, and the competition for that supply from other non-energy sectors, biomass policy and support need to encourage the most efficient and beneficial use of this finite resource.’ BSW welcomes the Scottish Government’s recognition that wood is a finite resource and the importance of sourcing sustainable supplies of fuel. However, wood is traded across borders within the UK and much of Scotland’s timber harvest is transported to England. While the UK Government continues to support large-scale, electricity only biomass energy generation the Scottish wood supply remains threatened and therefore the sustainable supply chain the Scottish Government requires to meet its renewable energy targets is at risk.

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1 2020 Routemap for Renewable Energy in Scotland (June 2011), Section 3.5 Bioenergy and Energy from Waste.
DECC currently estimates that by 2030 8000-10000MW of electricity will be generated from biomass. This represents demand for 80-100 million green tonnes of wood, at least 8 times the 2010 UK domestic roundwood harvest of 10.2 million green tonnes. Even with better management of forests the Forestry Commission estimates that potential increase in production will only be 2-3 million green tonnes. Given current planting rates and growth cycles, wood production in the UK is due to peak around 2020 and steadily decline up to 2050. The UK wood market will not be able to meet the demands of large-scale biomass developments. Were even 10% of the estimated biomass demand to come from domestic sources, then the entire UK wood harvest would be diverted to biomass generation.

What further improvements are needed to the grid infrastructure or heat supply networks both at a national and a local level? Additionally, are we confident that the necessary infrastructure can be developed and financed so that Scotland can export any excess electricity generated to the rest of the UK and/or the EU? What is the role for the Scottish Government here?

(c) Planning and consents
Is the planning system adequately resourced and fit for purpose?
How can national priorities be reconciled with local interests?

(d) Access to finance
Will sufficient funds be available to allow investment in both the installation and the development of relevant technologies? What can the Scottish Government do to influence this?
What will the impacts be on consumers and their bills?

(e) Skills and workforce development
Will Scotland have sufficient home-grown skills to attract inward investment? Are current policies producing the desired move towards Science, Technology, Engineering and Maths subjects at schools and universities? Is the skills transfer from the oil and gas sectors being realised?

(f) Energy market reform and the subsidy regime
Are the reforms of the energy markets and subsidy regimes at both UK and EU level sufficient to meet the challenge of the Scottish Government’s renewable targets?

BSW welcomes the Scottish Government’s proposed reforms to remove support from the Renewables Obligation for large-scale electricity only biomass energy generation, however unless the UK and EU address this issue too, Scotland’s renewables targets are at risk.

As the Routemap recognises, using biomass for electricity only is inefficient and it is also environmentally unsound. Electricity only biomass has an efficiency rate of only 30% whereas heat only schemes have an efficiency of 80-90% and CHP has an efficiency of 50-70%. However, large-scale CHP would be as equally damaging to the wood processing and forest industries as electricity only biomass. Therefore BSW Timber supports the introduction of a maximum threshold for biomass CHP. There have been suggestions of a 10MW maximum output threshold for biomass
We welcome these proposals, however, we believe that a thermal input threshold should be implemented, set at the maximum input required by a 10MW CHP plant. A 10MW plant requires between 30-40MW of thermal input, dependent on the plant, and this input threshold should be applied in order to limit the amount of biomass used as fuel.

Current subsidy levels also fail to acknowledge the environmentally unsound nature of burning wood for electricity generation. It is more environmentally sound to process wood instead of burning it for energy. The Committee on Climate Change has already recognised that using wood in construction is environmentally better than using it for energy production, stating that ‘the use of woody biomass in construction (rather than as an energy source) should be a high priority, given that this generates negative emissions through a very efficient form of carbon capture’ and that there is ‘scope for significant emission reductions through the use of woody biomass in construction.’

Processing wood locks carbon into wood products and produces only 378kg of CO2 per tonne of wood, whereas burning wood for electricity generation produces 1,905kg of CO2. The promotion of timber use in construction is therefore a significant way of helping meet renewable energy targets and this should be given due consideration.

However, unless the UK and EU Governments also recognise the need to change current support for large scale electricity only and CHP biomass plants the Scottish Government’s reforms will not have the impact needed to meet its renewable targets. As the Xero Energy report noted ‘Ongoing support through the RO in England and Wales will continue to incentivise co-firing, conversion and dedicated biomass south of the border, and hence create a demand on woodfuel resources harvested in Scotland.’

Executive Summary
BSW Timber is the UK’s largest domestic sawmilling group, formed following the amalgamation of family companies. The group has an annual turnover in excess of £163m, directly employing over 900 people; indirect employment in timber harvesting and haulage accounts for another 2,500 jobs.

The company has four mills in Scotland (Dalbeattie, Fort William, Boat of Garten and Petersmuir), one in England (Carlisle), one in Wales (Newbridge) and one in Latvia, creating a sawn timber capacity of more than one million m3 per annum. In total, the Group processes around 15 per cent of the UK timber harvest.

BSW Timber is currently implementing a five-year capital investment programme, worth £52m, in modernising the mills and expanding capacity to produce more than 1.3 million m3 a year across all the mills. This investment will create vital jobs in rural areas and has the potential to employ a substantially larger number of people than investment in biomass plants can. Our Fort William mill will consume 420-450,000 tonnes of domestic biomass roundwood per year and provide around 150 jobs on site. In contrast, a typical 20MW biomass plant will consume around 300,000 tonnes

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3 Ibid., p.11.
of domestic biomass roundwood per year but provide only 15-20 jobs. The job multiplier for the mill’s 150 jobs is between 3 and 4 due to the upstream and downstream economic benefits. However, with a biomass power plant this not the case as there are no downstream jobs to consider and the upstream emphasis is purely on price. Sawmills do not focus solely on price upstream but also ensure quality, research and development in the long-term. Our sawmills therefore provide significant economic benefits to rural communities but this is being threatened by the distorting impact of the Renewables Obligation and other renewable energy policies. Sawmill products, and our highly efficient production processes, also have a positive impact on carbon sequestration. BSW Timber brings considerable environmental, economic and social benefits to the communities it operates in, and the UK as a whole.

BSW Timber is a major producer of sustainable and low-carbon building materials. Wood is the least carbon intensive building material; every cubic metre of wood that is used in place of alternative materials saves between 0.7 and 1.1 tonnes of carbon dioxide. By using a timber frame, it is possible to reduce the carbon footprint of a typical 3 bedroom house by approximately 3 tonnes. 4.2 tonnes of CO2 can be saved per 50 square metre of wall element, by substituting timber frame and softwood weather boarding for brick and block. 13.85 tonnes of CO2 can be saved when softwood weatherboarding is substituted for PVCU weather boarding.

Given the increasing role that timber should be playing in construction, we do not agree with the principle of burning useable wood for large scale electricity generation or large scale CHP, as the wood processing industries increase their demand for the woody biomass feedstock.

Wood is traded across borders within the UK, and much of Scotland’s timber harvest is transported to England. We urge the Scottish Government to consider this when undertaking action to meet its renewable energy targets. If the UK Government fails to address the flaws in its policy, Scotland’s forest industries will still be at serious risk of seeing their timber supply sold to energy producers south of the border, which will ultimately damage Scotland’s ability to meet its renewable energy targets.

Submitted by Hamish Macleod, Head of Public Affairs
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