

2 September 2020

Statement

Bioenergy sector supports obtaining greater value from New Zealand's wood residues

The Bioenergy Association welcomes the release by Te Uru Rakau of the Wood Fibre Futures report¹ but also wants greater focus by government on the immediate use of forest harvest and processing residues for replacing coal.

Brian Cox, Executive Officer of the Bioenergy Association said that “ It is encouraging to see government supporting efforts to obtain greater value from forest harvest residues which are generally left as waste. Wood waste from forestry is a valuable resource which we squander because we don't have a priority for using it to create regional economic opportunities, including additional employment.”

Mr Cox said that “The wood processing sector already use process residues for heat but there has been little interest in expanding the use of this proven technology to replace coal for other manufacturing process heat. Wood is a fully renewable natural resource which is carbon neutral. The Wood Fibre Futures report investigates many new investment opportunities but ignores the opportunities to grow the sector by first encouraging investment in existing proven technologies. This would provide a strong foundation for expanding additional sources of forestry residues into these new emerging investments.”

The Bioenergy Association has identified that 1.8Mt CO₂-e of greenhouse gases could be reduced if coal was replaced by use of biomass fuels.

Mr Cox said that “it is great that the Government has recognised that using wood waste to produce energy and other products is good for business and communities, and that proactive climate change policies can have a very positive upside to communities and the economy. We just need to have a greater sense of urgency by initially focusing on what can be achieved by 2030 while we investigate the longer term investments outlined in the Wood Fibre Futures report. ”

Additional information

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¹ <https://www.teururakau.govt.nz/news-and-resources/media-releases/big-opportunities-for-a-high-value-low-carbon-forestry-future/>

Bioenergy and biofuels sector

www.bioenergy.org.nz

1. Bioenergy has a unique point of difference from other forms of renewable energy as it is the most flexible and versatile form of renewable energy and contributes widely to the New Zealand economy. The use of biomass for energy (bioenergy) provides a fundamentally different least cost approach to achieving a low carbon economy compared to all other renewable energy forms. Biomass use and bioenergy can:
 - substitute for all fossil fuel uses for any energy application and is carbon neutral,
 - contribute to carbon storage (remove GHG from the atmosphere)
 - provides significant opportunities to address environmental issues arising from optimisation of land use (eg pastoral intensification and landfilling)
 - Provide many opportunities for regional economic growth and employment based on our under-utilised land resource.
2. Focusing on use of biomass as a valuable resource leads to new business opportunities, improved business resilience of landowners, and extraction of value from waste. Energy is often the co-product of higher value products such as regional employment, bio-based materials and more resilient land use.
3. Bioenergy is from a fully renewable resource, using proven technologies and has extreme flexibility. The processing of biomass can produce a wide range of revenue streams from application of heat; generation of electricity; use as transport fuel; extraction of chemicals and manufacture of bio-based materials; use as bio-fertiliser; and purification of water.
4. Communities and business adopting a circular economy approach by matching local wood and waste residues as feedstock as an input to creation of products, optimises the financial viability of the business, offsets costs of waste disposal and being used to generate employment and new business that supports the local economy.
5. Bioenergy initiatives are generally highly integrated with other sectors and other activities so cross sector and all-of-government approaches are necessary. For example integrated agriculture land use for animal health management with shelter can produce revenue creating wood fuel.
6. Bioenergy could achieve greenhouse gas reductions of:
 - 1.8 Mt CO₂ -e pa from reduced use of coal and gas for process heat
 - 1.8 Mt CO₂ -e pa from reduction of methane from waste
 - 5.0 Mt CO₂ -e pa from use of biofuels in transport

These levels of greenhouse gas reduction are comparable but less cost than many of the other initiatives currently being pursued by Government.

<https://www.bioenergy.org.nz/greenhouse-gas-reduction>

7. The vision for bioenergy - Economic growth and employment built on New Zealand's capability and expertise in forestry, wood processing and bioenergy production from waste - leading to new business opportunities which by 2050 could more than double biomass energy supply up to 27% of the country's energy needs, with a consequential 15% reduction in greenhouse gas emissions*.[* compared to 2017]

Combustion of biomass for process heat

www.usewoodfuel.org.nz

1. The use of biomass fuels for process heat are proven and widely used by those with immediate access to biomass which can be used as a fuel.
2. The market for buying and selling biomass fuel by those without immediate access to their own sources of biomass builds on strong foundations.
3. The biomass fuel supply chain has a number of players but like any evolving market the New Zealand biomass fuel supply market now has cornerstone players who are expanding their supply capabilities at a fast but orderly rate so that boom/bust scenarios will be avoided.
4. Unlike fossil fuels whose quantity is finite there is potentially no reason why biomass fuel supply will be a future problem. There are many avenues for sourcing biomass such as plantation and farm forestry. The 1 billion trees programme will produce additional biomass fuel plus be a new carbon sink every 30 years by planting commercial forests. Biomass processing could be integrated at least cost (or vica-versa) with waste to energy bio-processing.