

29 January 2020

Statement

Transitioning schools and hospitals from coal to biomass heating provides confidence that we can achieve greenhouse gas emission reduction targets

The announcement that the Government will fund \$10 million from the infrastructure package to help eight schools and a hospital end their use of coal boilers in a bid to decarbonise the public sector, provides confidence that New Zealand can achieve greenhouse gas emission reduction targets by use of biomass energy.

Brian Cox, Executive Officer of the Bioenergy Association said that “Leadership from Government is important in demonstrating that there are immediate opportunities for reducing greenhouse gas emissions. Funding these announced projects will give other heat users greater confidence to replace coal with biomass fuel. The association estimates that switching to biomass for processed heat could cut the country’s greenhouse gas emissions by 1.8 million tonnes a year.”

“Government agencies and companies such as Fonterra are leading the way and demonstrating that it can be cost effective to adopt sustainable business policies by transitioning from fossil fuels to biomass fuel. As a result the wood fuel suppliers are increasing capacity for biomass fuel production to meet this fast growing demand. In the last six months there has been a doubling of the number of accredited wood fuel suppliers across New Zealand.”

“The government’s announcement for use of biomass fuel in eight schools and hospitals, reinforces the confidence that government and industry is having with regard to long term supply of biomass fuel. Unlike coal and gas biomass fuel should never run out”

“The use of wood fuel is facilitated because it is a reliable consistent fuel which allows the cost of modifying existing plant to be kept to a minimum. Wood pellets and chip fuel are also suitable for cofiring with other fuels which can be an optimal transition pathway for moving from fossil fuels to biomass fuel.”

Mr Cox said that “our analysis shows that we can always obtain biomass fuel supply from plantation forestry, municipal waste, agriculture and horticulture. It will be a government policy failure if we are not able to use our land wisely to ensure that we have enough biomass to produce the required quantities of wood fuel to meet the needs of government and industry. Farmers can become food plus fuel suppliers. “

“Biomass energy is the most flexible sustainable source of energy for heat and transport”

Ends

Additional information

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Additional information will be available from a workshop “*The Evidence for Delivering Wood Energy to New Zealand*” to be held in Wellington on 25th February 2020

www.bioenergy.org.nz/event/evidence-for-delivering-wood-energy-to-nz

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^S.*[* 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 intergrated at least cost (or vica-versa) with waste to energy bio-processing.