30 January 2020



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Increased supply of wood pellets will give large heat users confidence to replace coal with biomass fuel.

The announcement that Nature's Flame has increased its capacity to produce and supply wood pellets to industry for heating¹ will give large industrial heat users greater confidence to replace coal with biomass fuel said the Bioenergy Association.

Brian Cox, Executive Officer of the Bioenergy Association said that "Fonterra's announcement that it is converting the Te Awamtu milk processing plant to use wood pellets from Nature's Flame rather than fossil fuels to produce its heat², and the government's announcement for use of biomass fuel in eight schools and two hospitals, reinforces the confidence that government and industry is having with regard to long term supply of biomass fuel."

"The use of wood pellets in existing plant is facilitated because they are a reliable consistent fuel which allows the cost of modifying existing plant to be kept to a minimum. Wood pellets are also suitable for co-firing with other fuels which can be a optimal transition pathway for moving from fossil fuels to biomass fuel."

"Companies such as Fonterra are leading the way and demonstrating that it can be cost effective to adopt sustainable business policies and transition from fossil fuels to biomass fuel. Similarly companies such as Nature's Flame are demonstrateing that when demand for pellet fuel increases that thy can expand pellet production capacity to meet demand.

The BioenergyAssociation has identified that 1.8Mt CO₂-e per year of greenhouse gases could be reduced if this type of project was extended to other government and industrial facilities.

Mr Cox said that "our analysis shows that we can always grow biomass fuel supply from plantation forestry, municipal waste, agriculture and horticulture. We need to work across all sectors to ensure that forestry, energy and agricultural policies align so that adequate quantities of biomass is available as a source of fuel supply.

The decision by Nature's Flame to expand wood pellet production capacity is a sign of confidence that replacing coal by biomass fuel is sustainable long term."

"Using wood and waste to produce energy and other co-products is good for business and communities, and at the same time reduces greenhouse gas emissions, employment and regional economic growth"

Ends

¹ <u>Link to Nature's Flame statement</u>.

² <u>Link to Fonterra statement</u>

Additional information

Contact Brian Cox Executive Officer +64 (0)274 771048 brian.cox@bioenergy.org.nz

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

- Bioenergy has a unique point of difference from other forms of renewable energy as it is the most flexible and versitile form of renewable energy and contributes widely to the New Zealand economy. The use of biomass for energy (bioenergy) provides a fundamentatlly different least cost approach to achieving a <u>low carbon economy</u> 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-utilsed 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 electricty; 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 disposaland 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. 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 finate 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.