

Growth in the use of bioenergy fuel in Otago and Southland

Bioenergy and biofuel is fuel produced from wood and from harvest residues - which is currently being left behind from log harvesting. The wood/residues are chipped for use in woodchip boilers, or manufactured into pellets to be used in pellet burners for industrial and commercial energy.

Wood biomass is already a popular option in Europe and North America. There is increasingly strong interest in bioenergy systems in Otago and Southland from commercial/industrial users:

- Woodchip boilers have been used by the timber processing industry for years, to power their processing and utilise waste wood product.
- A pilot programme funded by the Ministry of Education and the Energy Efficiency and Conservation Authority saw traditional coal systems replaced by woodchip plants at Dunstan High School in 2009. Woodchip energy was sourced from forests at Naseby.
- Other industrial users have followed suit and have saved money on energy costs, including Bayfield High School and Clutha Valley Primary School, the University of Otago Department of Psychology building, and the Little Sisters of the Poor retirement home. Invercargill-based commercial laundry McCallum Group, one of the first laundries in NZ to install a wood chip boiler for heat, reduced energy costs by nearly two thirds and greenhouse gas emissions by 97% ([EECA](#)).
- More large organisations and commercial businesses looking at changing their fuel source and installing wood-based burners at present include the Wanaka Community Pool.
- Use of domestic pellet burners is also rising to meet clean air requirements. Solid Energy wood pellet sales were up 262% for the first quarter of 2011.
- Firewood continues to be a popular bio-energy choice for domestic heating and remains a eco friendly option when used in a clear air woodburner.

Otago and Southland forestry is in a great position to sustainably produce and use a lot more of its own bio-fuel. The Southern Wood Council believes Otago and Southland's 215,000 plus hectares of forest can produce and supply wood to support the region's biomass requirements.

The advantages of using biomass energy are:

- Clean burning
- Safe (particle emissions from wood fuel are between 1/3 and 1/5 of those from coal).
- Renewable
- The advantages of wood biomass Efficient
- Carbon-neutral
- Fits with the New Zealand Energy Strategy
- Complies with the Otago Regional Council's air plan.
- Economical
- Meets industrial energy requirements
- Easy to convert existing coal-fired hot water heating system to wood energy.
- Most modern wood chip and pellet boilers are fully automated.

- Wood chips are available NZ-wide, are relatively cheap as they are a wood residue product , and burn efficiently (at up to 55% moisture levels).
- Wood pellets produce heat quickly, take up less space, are consistent in quality, easy to handle and burn very cleanly.
- Supports the local economy as is produced in Otago / Southland.

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