Renewable Energy

Bioenergy

Factsheet | Renewable heat

March 2023

Bioenergy is energy produced from organic matter and can be produced from organic waste and residues of agricultural, industrial, municipal and forestry origin.

For example, crop wastes and remains, anures and sludges, rendered animal fats, used oils, food and garden waste, timber harvesting and processing residues, construction and demolition woody waste and residual municipal solid waste.

ReCFIT (Renewable energy, climate and future industries Tasmania) is responsible for advising the government on the state's strategic direction on climate change, renewable energy growth and emissions reduction to help shape Tasmania's future while maintaining a secure, sustainable, and affordable energy system.

Renewables, Climate and Future Industries Tasmania
Department of State Growth

Tasmanian Government

Renewable heat

Some businesses require more heat energy than electrical energy while other businesses require heat that is difficult to supply from electricity. Fossil fuels are often used to generate heat. Renewable heat can be derived from the combustion of bioenergy feedstocks such as agricultural and forestry residues and residual municipal organic waste.

Renewable thermal technologies offer clean, efficient, and cost competitive alternatives to fossil fuels. Biomass can replace fossil fuels to provide heat needed for industrial processes or to heat buildings spaces and water, reducing greenhouse gas emissions and air pollutants.

CASE STUDY

About Austral Bricks

Austral Bricks is an Australian company established over 100 years ago that produces a variety of bricks at sites located around Australia, with one facility located at Longford Tasmania.

Austral Bricks Longford facility produced the world's first certified carbon neutral bricks. The Longford site makes 3 million bricks annually and employees 30 staff with the operation being certified carbon neutral since 2014.

Quick facts

- The Longford facility produced the world's first certified carbon neutral bricks.
- Sawdust displaced diesel to fire the brick making kilns in the 1980s and fully converted to sawdust in 2012.
- Greenhouse gas emission were reduced by 8, 392 tonnes of CO2 equivalents per year (FY13).
- Energy costs were reduced even though there were additional costs to handle the sawdust.
- Architect demand for carbon neutral bricks for sustainable developments, including the construction of net-zero buildings increased after the conversion.
- Replacing fossil fuels with sawdust increased employment by three full time equivalent roles to manage the sawdust on site. Secondary employment also occurred to collect and deliver sawdust to the site (10-12 truckloads/ week).

How can we help?

If you would like more information on bioenergy, including being linked to relevant expertise to explore a bioenergy opportunity, please contact ReCFIT Manager Bioenergy on bioenergy@recfit.tas.gov.au

More information is also available from:
https://www.stategrowth.tas.gov.au/recfit/future_industries/bioenergy