

Marysville Bioenergy Q&A

Q: What is Bioenergy?

A: See the accompanying document on Bioenergy Q&A for answers to this question and many others relating to general questions about Bioenergy.

Q: What is the background to the Marysville Bioenergy project?

A: The Marysville Bioenergy Project (“Fighting Fire with Fire”) is a direct consequence of the February 7 bushfires. With millions of tonnes of unsalvageable fire-damaged wood, and the need for reconstruction of entire communities, the potential role of renewable bioenergy became the topic for investigation.

Q: Who is undertaking the Marysville Bioenergy project?

A: The Marysville Bioenergy Project is being undertaken by two local companies; TreePower Australia (Taggerty) and Gasification Australia (Strath Creek). They have been assisted in the conduct of the Feasibility Study by Melbourne-based Earth Systems Consulting.

Q: What is proposed for the Marysville Bioenergy project?

A: The Marysville Bioenergy project will consist of a combustion furnace, linked to an Organic Rankine Cycle which will drive a turbine to generate electricity, which would then be fed into the electrical grid. It is also planned to capture waste heat from the process, to convert into saleable heating or cooling.

Q: Where would it be located?

A: The Marysville Bioenergy project would be located within the Marysville Triangle region. The Feasibility Study has investigated three possible sites in Marysville, Narbethong and Taggerty.

Q: How big will it be?

A: The Marysville Bioenergy project will use a 1 megawatt generator, to produce 1 MWhr of electricity per hour of operation. The plant would operate for about 8000 hours per year. In addition to the electrical output, 4-5 MW of heating could also be produced for local municipal or industrial use.

Q: Who would use the electricity?

A: The electricity would be fed into the grid, and could then be used by anyone as GreenPower. It is expected that eventually Marysville and Triangle residents and businesses would consume over half of the electricity produced.

Q: Who would use the heating output?

A: The heating (and cooling) outputs would need to be used locally. The Feasibility Study has considered the construction of a District Heating and Cooling System for Marysville, and has also suggested some potential larger users of the heating and cooling.

Q: Where will the wood come from?

A: The 1MWe Marysville Bioenergy project would use approximately 12000 tonnes of wood per year. In the short term (1-3 years) this wood would come from fire-damaged wood stocks. In the medium term (3-10 years) the wood would come from harvest residue from plantations and forests. In the longer term (after 10 years), wood would come from purpose-grown bioenergy plantations established within the region over the next 10 years. These bioenergy plantations would provide an ongoing sustainable source of feedstock, with additional greenhouse benefits.

Q: How would it be organised?

A: It is envisaged that the organisation set up to carry the project forward would be a community owned public company, similar in many respects to that established for the Hepburn Windfarm project (www.hepburnwind.com.au). In this way, the project would be owned by, and operated for the benefit of, the Marysville and Triangle communities.

Q: How much will it cost?

A: It is estimated that the Marysville Bioenergy project would have a total capital cost, including supporting infrastructure, of approximately \$12-15 million.

Q: Is the project economically viable?

A: Based on expected costs and revenues over the next 20 years, the project has been shown to be economically viable, with a payback period (depending on assumptions and future income streams) of between 8 and 12 years.

Q: What is the timeframe?

A: Assuming that project approvals and financing can be obtained over the next six months, project implementation could commence in early-2010 and be ready for operation by late-2010.

Q: What are the benefits for the Marysville region?

A: The main benefits of the project for the Marysville and Triangle region would be:

- A local source of renewable electricity for the future
- Income from the sale of electricity to the grid
- Income from Renewable Energy Credits (RECs)
- Income from the sale of heating and cooling
- Establishment of co-located technology enterprises
- Development of local farm forestry bioenergy plantations
- Support of eco-tourism and “green conference” activities
- Support for local employment in associated businesses
- A sign that reconstruction activities have begun in the region.

Q: How much local employment will it generate?

A: Although the plant itself represents only minor employment opportunities (directly employing 2 to 4 FTE (Full Time Equivalent)), it has a 20 year operating life, and

beyond the initial period of operation on fire-damaged material, would provide a long-term supply opportunity for local farm forestry growers. There would also be employment opportunities in any businesses that chose to co-locate with the power plant in order to avail themselves of the bulk heating and cooling available.

Q: Would there be any local environmental impacts?

A: The plant, designed to meet stringent European flue gas emission regulations, would surpass the relevant local emission regulations and overall would have a minimal impact on the local environment. The feedstock deliveries would require an average of one truck-load per day across the year.

Q: What are the next steps?

A: Following the release of the Feasibility Study report, the next steps are:

- Evaluation of the Report's findings
- Establishment of the ongoing public company
- Evaluation of financing options
- Selection of site
- Finalisation of design specifications
- Obtaining of approvals
- Finalisation of contracts for sale of electricity, and other outputs
- Procurement of power plant components
- Establishment of site infrastructure
- Construction of power plant
- Connection to electricity grid
- Testing of power plant operations
- Start of operations
- Ongoing operation and maintenance.

