

## Te Ahi o Maui General Project Information

New Zealand has a growing need for energy to power our homes, businesses and industries. Increasingly, those involved in the energy generation industry are focusing on renewable energy sources like geothermal energy because it is sustainable and has a relatively low impact on the environment. The Government recognizes this and has developed a National Policy Statement for renewable electricity that sets a target for 90 per cent of electricity generated in New Zealand to be derived from renewable energy sources by 2025.



***Geothermal activity is a natural feature of the Kawerau landscape***

Kawerau has been a source of renewable energy for many years, with a number of geothermal power plants harnessing the geothermal energy created by thermal activity deep underground. The Te Ahi o Maui project plans to increase this renewable energy generation capability by using the Kawerau geothermal reservoir.

This project proposes to design and construct a geothermal power plant on a site 2.3 kilometres north-east of the Kawerau township. The site is on land owned by the Kawerau A8D Ahu Whenua Trust – one of the project partners of the Te Ahi o Maui project.

### **About geothermal energy generation**

Geothermal energy generation is a process where hot water and steam are extracted from a geothermal reservoir deep beneath the surface of the earth. The hot water and steam are used to drive a turbine that generates electricity.

The Te Ahi o Maui power plant will be designed to generate approximately 15-20MW net of electricity, with around 15,000 tonnes of geothermal fluid extracted daily. The exact extraction rate will depend on the final design of the plant. It could be designed to use either a conventional geothermal steam turbine system or an organic Rankine cycle, or a combination of both.

Resource consents have been awarded to allow the construction and operation of the project and to take and discharge 15,000 tonnes per day of geothermal fluid from the Kawerau geothermal reservoir for a period of 35 years.

### **Who are the project partners?**

The partnership created to drive the Te Ahi o Maui project is a special and unique one. There are two partners: Eastland Generation and the Kawerau A8D Ahu Whenua Trust.

### **Eastland Generation**

Eastland Generation is one of the businesses under the umbrella of Gisborne-based Eastland Group Ltd, which has its commercial focus in the energy and logistics sectors. It is owned by the Eastland Community Trust, and the basic kiwi values that govern the Trust filter down to the individual businesses. As part of this structure, Eastland Generation's aim is to be involved in projects that are economically worthwhile, environmentally sound, socially responsible and culturally aware. Eastland Generation owns Geothermal Developments Limited, a 9MW geothermal plant on the Kawerau geothermal field, and the Te Ahi o Maui project represents a move into development and construction of further geothermal power plants. Eastland Generation's intention is to continue to work within the market of smaller to medium scale energy projects where we can bring project management and commercial expertise to the table alongside iwi and other landowners.



## A8D Trust

The Kawerau A8D Ahu Whenua Trust is part of the Ngāti Tuwharetoa ki Kawerau iwi. As owners of the land that is home to the geothermal reservoir, the Trust members are excited to realise their vision to use the land for the benefit of their people. The A8D Trust sees the Te Ahi o Maui project as an investment in the sustainable generation of energy for the local and national community, a way to bring employment and education opportunities to their youth, and a way to create further revenue that can be invested and grown into the future.

## How will the Te Ahi o Maui project affect the community?

Kawerau is “hot spot” in geothermal terms. As New Zealand, and the rest of the world, strives to reduce its carbon footprint, this geothermal resource is becoming increasingly important. The Te Ahi o Maui project pushes Kawerau further along the track of truly becoming New Zealand’s ‘engine room’.

Developing more local power plants has the potential to allow established industries to continue to be world leaders, as well as attract new industry to the area. The renewable generation of energy contributes to our economic development, both locally and nationally.



***Kawerau is fast becoming the 'engine room' of New Zealand.***

As the Te Ahi o Maui project based in Kawerau and the land is locally owned, it will benefit both the landowners and the wider community. The project will be sustainable for decades, giving the opportunity to use this local industry to continue to develop and create local expertise and

employment well into the future. During the construction stage it is expected that as many as 100 people will be involved in its construction and, throughout the life of the power plant, people will be required to operate and maintain it.

These activities require businesses to support them, including engineering firms to provide the technical know-how and skills and lunch bars and cafes to feed staff. Much of this support will come from local businesses, which will mean a considerable proportion of the money spent on the plant will be spent locally. The employment opportunities (both direct and indirect) for local people, and particularly youth, are one of the important benefits of this project.

## Will there be any environmental effects?

Any project that is based on land use raises questions about environmental effects. The Te Ahi o Maui partners consider environmental responsibility to be fundamental to the way we do business.

Through the resource consenting process thorough investigations and assessments were undertaken on the effects the project would have on the environment. This included research into how this geothermal plant could affect the environment, including effects on the geothermal reservoir, emissions (materials that are released) into the air, noise and dust from drilling, any effects extraction could have on the surface of the land, possible erosion from construction, increased traffic, and the visual impact of the plant.

The research and results were presented to a panel of commissioners during the resource consent hearings and a set of consent conditions were developed to ensure the project will minimal impact on the environment.

## Questions? Please contact us

Visit [www.teahiomaui.co.nz](http://www.teahiomaui.co.nz) or call 07 308 2574

