

Waste to Energy Partnership

Beneficial use of local landfill gas
Nelson City Council and
Nelson Marlborough DHB

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There is a positive partnership between the three parties and it is good to see a positive use for the York Valley landfill gas.

ALEC LOUVERDIS - NELSON CITY COUNCIL
SENIOR EXECUTIVE TECHNICAL SERVICES

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Nelsonians are reaping the benefits from the practical and strategic use of landfill gas.

The operation utilises gas from the York Valley Landfill, which is piped to the Nelson Hospital. The gas is used as an energy source to fire the 2.0MWth boiler located at the Nelson Hospital.

The boiler produces over 60% of the hospital's thermal energy demand for heating, steam and hot water. It is a reference site for other city councils and hospitals in New Zealand, demonstrating the best practices for the sustainable management and the beneficial use of landfill gas.



PIONEER'S ROLE

As a leading clean energy solutions partner for New Zealand industry, Pioneer Energy provides some of New Zealand's leading institutions, exporters, manufacturers, councils and health providers with globally competitive sustainable energy solutions.

Pioneer works with customers to discover their energy futures and strives to maintain the integrity of the natural environment, while maximising the value of natural energy resources and reducing greenhouse gas emissions.

Pioneer encourages the uptake of renewable energy to New Zealand industrial and institutional customers. It sees a bright future for renewable energy utilisation and is well positioned to satisfy the growing demand.

POSITIVE PARTNERING

When the Nelson Marlborough District Health Board initiated a study into the hospital's potential use of landfill gas it had the support of the Nelson City Council. The landfill gas scheme provided a strategic and valuable use for the landfill gas, enabling the hospital to reduce coal consumption and in turn, reduce emissions, cut energy costs and reduce environmental impacts to the wider region.



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Selected because of their track record in this area and their extensive background in the health sector.

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RUSSELL DICKSON – NMDHB, PROPERTY OFFICER, TECHNICAL

Under a tri-party approach, Nelson City Council (the landfill operator), the Nelson Marlborough District Health Board (the end user of the renewable energy) and Pioneer Energy (owner/ operator of the gas treatment, delivery system and boiler) have proved the significant benefits achievable to their bottom lines and the environment.



COST EFFECTIVE AND REGIONALLY SIGNIFICANT

Under a long-term contract agreement Pioneer Energy sells the steam to Nelson Hospital in an arrangement that ensures the hospital pays less for steam generated by landfill gas than it does when it produces steam from alternative sourced fuel.

The installation of the scheme came at no cost or financial risk to the hospital, it reduced fossil fuel usage, and reduced the hospital's carbon footprint by 3,300 tonnes of CO₂ per annum. This has provided a major boost to the Nelson City Council's efforts to reduce local air pollution, which was a significant health issue and enables them to meet national clean air standards.

This is an innovative solution to the council's and hospital's financial and sustainability goals and is a model that can be used by other councils, institutions or businesses with similar goals.



Pioneer Energy can help you reduce energy use, lower your operating costs, free up capital, and contribute to a cleaner energy future.

From a suite of intelligent energy management solutions, Pioneer works with you to build the right energy solution for your business.

Contact us to find out more about how we can help.

Facts at a glance

Project Description

Customers:

Nelson Marlborough DHB

Location:

Nelson, New Zealand

Application:

Landfill gas conversion
Thermal energy for heating, steam and hotwater

Scope of Work:

Over 60% of Nelson Hospital's thermal energy needs

Capacity:

2.0 MWth

Fuel:

Landfill Gas

System Highlights

Commissioned date:

2005

Availability:

Exceeds 95%

Avoided Emissions CO₂:

3,300 tonnes pa

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