

Waste to Energy Partnership

Primary processing waste to heat solution - Silver Fern Farms Ltd

“

They were very innovative and their proposed solution solved two of our energy issues”.

MARTHINUS HENDRIKS
ENGINEERING MANAGER, SILVER FERN FARMS LTD

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Pioneer energy

As part of Pioneer Energy's long-term vision to provide sustainable energy futures for New Zealand business, they have established long term partnerships with a number of leading hospitals, tertiary institutions, councils and industrial manufacturers and processors.

Pioneer specialises in developing and supplying sophisticated on-site energy solutions designed to improve energy efficiency, enhance environmental outcomes and reduce energy costs.



PIONEER'S ROLE

As a leading clean energy solution partner for New Zealand industry, Pioneer works with customers to discover their energy future. Pioneer strives to maintain the integrity of the natural environment while maximising the value of natural energy resources and reducing greenhouse gas emissions.

LEADING BY EXAMPLE

When Silver Fern Farms started planning a new waste water treatment plant to meet resource consent obligations at its largest meat processing plant, near Balclutha in Otago, NZ, it quickly became apparent that sludge generated from the treatment plant would require a significant waste management solution.

Partnering with Silver Fern Farms to look at the options, an opportunity to implement leading edge bubbling fluidised bed boiler technology was identified.

The technology was relatively new to New Zealand, but proven overseas. The technology could utilise the dewatered sludge from the meat processing effluent plant as fuel, co-fired with wood chip, a solution with financial, operational, environmental and compliance benefits was able to be presented to Silver Fern Farms Ltd.





The proposal has delivered us a modern and much improved boiler system, better environmental outcomes and enhanced operational efficiencies.

MARTHINUS HENDRIKS - ENGINEERING MANAGER, SILVER FERN FARMS LTD



Facts at a glance

Project Description

Foundation Customers:

Silver Fern Farms Ltd
Finegand Meat Processing Plant

Location:

Balclutha, Otago, NZ

Application:

Bubbling Fluidised Bed Boiler

Scope of Work:

Build, Own, Operate, Transfer (BOO)

Capacity:

8.5MW

Fuel:

Meat processing effluent
Waste water solids
Wood chip

System Highlights

Commissioned date:

2008

Availability:

Exceeds 95%

Avoided Emissions CO₂:

At least 2,000 tonnes



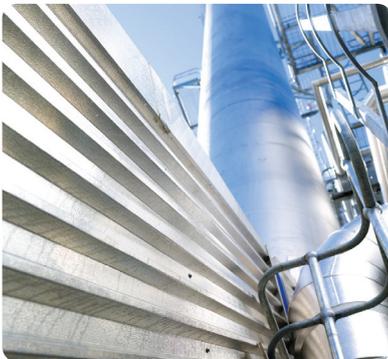
COST EFFECTIVE AND ENVIRONMENTALLY SOUND

The costs of developing, building and commissioning the bubbling fluidised bed boiler plant was part of a BOO (Build, Own, Operate) partnership with Silver Fern Farms Ltd.



The plant is designed to burn 3000 tonnes of sludge annually from Silver Fern Farms' Finegand meat processing plant's waste water treatment system. The plant also has a sludge handling and feed system, and is equipped with a flue gas baghouse which reduces fine ash particulates.

This cost effective innovative solution allowed Silver Fern Farms to retire an aged coal-fired boiler, further reducing CO₂ emissions by at least 2000 tonnes annually and solved the sludge disposal issue at the same time.



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.



Awards

Winner, Innovation Award
- Energy Efficiency & Conservation Authority (EECA) 2009

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