

New Vale Mine



Located near Gore in Eastern Southland, New Vale Opencast Mine extracts, processes and delivers lignite coal to customers in Southland and Otago.

Solid Energy's New Vale Opencast Mine is at Waimumu, south-east of Gore in Eastern Southland. It has two working pits separated by about a kilometre. Both are on the same lignite coal seam and, together, produce about 310,000 tonnes a year. Mining and processing operations run 5.5 days a week. New Vale employs about 42 staff and operates its own transport fleet, delivering coal to customers in Southland and Otago.

Solid Energy acquired the privately owned mine from the Highsted family in 2006. In operation since the 1940s, New Vale was developed by Dick Bryant, who named it after a mine near Newcastle in New South

Wales. Mr Bryant, his step-children and their descendants among the Highsted family have been associated with the mine from its inception until it was bought by Solid Energy.

In the early days, the overburden was removed with spades, shovels, and wheelbarrows. Blasting was done in the evening and the day's first job was breaking up the coal lumps with picks. It was hand-loaded onto the trucks. After the wheelbarrows came line scoops, a steam shovel, bulldozers, motor-scrappers and, today, hydraulic diggers remove overburden and extract the coal.

Almost all coal mined is transported to customers on the same day. Any daily surplus builds during the week in covered storage and is used to supply customers on the 1.5 weekend days when mining is not done. Coal from the face is carted in 12-tonne loads to the crushing/screening and batching plants. The mine also has a lump crusher which mainly operates in winter, producing larger coal for household use. New Vale's transport delivery fleet generally has five trucks working at a time and there is a separate yard for sales to the public.





Left: New Vale Mine staff. Right: Loading coal for public customer

What is lignite?

Lignites are young coals, characterised by being soft and friable. In comparison to harder coals, lignite has high moisture levels, lower carbon content and therefore lower energy content. Lignite makes up approximately 70% of New Zealand's large coal reserves, with the main deposits in Southland and Otago.

New Vale coal specifications

A typical as-received calorific value for New Vale lignite is 14.8MJ/kg. It is low sulphur and has a low ash content of about 4%. The New Vale operation has a strong client base, with its coal favoured for use by a wide range of industrial processes and for domestic heating.

Markets for New Vale coal

New Vale lignite is used by a range of industries in the south. The mine's largest customer is Fonterra's dairy processing plant at Edendale. Another major user is the Alliance meat processing group with its Mataura, Makarewa and Lorneville works.

The coal is also used by timber companies, a hospital, and in the drying of lime and the production of field drainage tiles. The Norton's field tile works at Pukerau is the mine's longest-running industrial customer.

Environment

Continual improvement in water management across all operations is a significant focus at Solid Energy and this is important at New Vale, as is rehabilitation of mined-out areas. Operationally, the company standard is that sites will have no significant environmental incidents. At all sites, Solid Energy conducts environmental monitoring, tracking water quality, ecosystem, air quality and noise. The company's overall environmental objective is for the cumulative result of all our activities to have a positive net effect on the New Zealand environment.

Community relationships

Solid Energy aims to have an open and constructive relationship with its neighbours.

In a variety of ways, Solid Energy supports schools in the immediate area of its mines. Students at selected Southland secondary schools are eligible for Solid Energy's annual tertiary study scholarships, worth up to \$8,000 for four years of study.

First to receive HPMV permits

Two trucks from the New Vale Mine fleet were New Zealand's first recipients of the new High Productivity Motor Vehicle (HPMV) permits issued in 2010. This allows the trucks to carry up to 50-tonne loads along the 60km route between New Vale Mine and a customer at Edendale, Southland – meaning fewer truck movements. The maximum mass limit for a truck carrying a divisible load without an H permit is 44 tonnes; HPMVs can go over that limit and some trucks will be able to be longer. Solid Energy's H permit trucks may only operate on the authorised route approved by the Gore District Council: Goodwin Road to Waimumu Road, then onto State Highway 96 and State Highway 1 to Edendale.

