

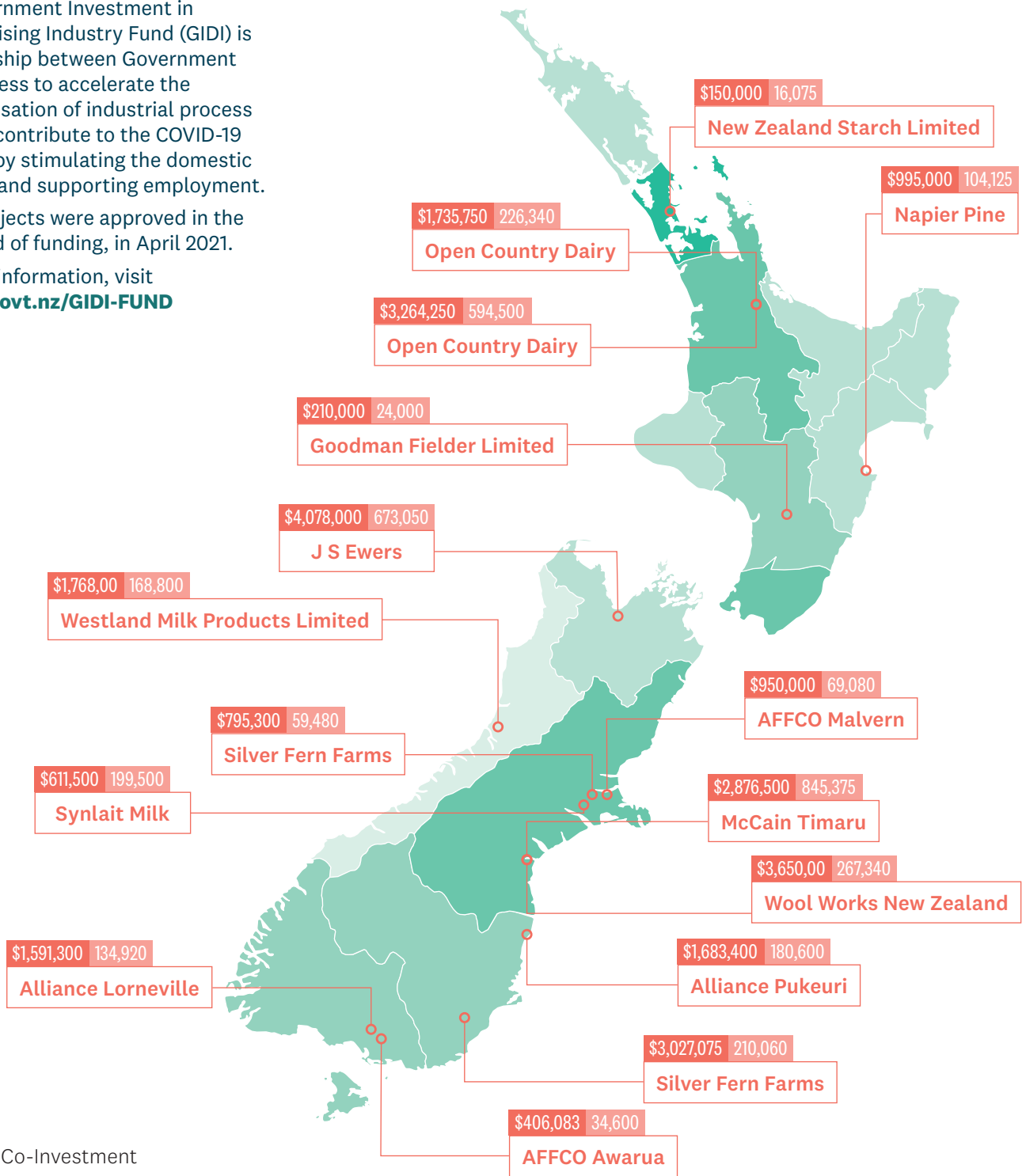
The GIDI Fund

Round One Projects: April 2021

The Government Investment in Decarbonising Industry Fund (GIDI) is a partnership between Government and business to accelerate the decarbonisation of industrial process heat and contribute to the COVID-19 recovery by stimulating the domestic economy and supporting employment.

These projects were approved in the first round of funding, in April 2021.

For more information, visit genless.govt.nz/GIDI-FUND



■ EECA Co-Investment
■ Lifetime Carbon Abatement (tonnes)

**Emissions data based on applicants' submissions*



of process heat is fossil-fuelled, mainly by gas and coal.

A total of
3,807,845
TONNES
lifetime carbon abatement

Annual carbon abatement equivalent to taking
68,500
cars off the road

| Recipient | Recipient Description | Project or Site Location | Project Title | Project Benefit | Approved GIDI Co-funding | Estimated Lifetime Carbon Abatement (tonnes) |
|---------------------------------------|--|--------------------------|--|---|--------------------------|--|
| NZ Starch Limited | New Zealand Starch develops, manufactures and markets a range of products including specialty starches and sweeteners for food and industrial use, from local and imported ingredients. NZ Starch continually strives to deliver quality New Zealand made products, to be delivered all around the world and employ 60 people from their Penrose site in Auckland. | Penrose, Auckland | Heat Recovery of Waste Steam using a Spray Condenser | Use vapour from gas-powered triple effect evaporator to provide process heat to other parts of the plant that require low grade heat but are currently also heated by gas-produced steam. | \$150,000 | 16,075 |
| Synlait Milk Limited | Synlait combines expert and sustainable farming practices with state-of-the-art manufacturing processes to produce a range of dairy based nutritional products that provide genuine benefits for human health and wellbeing. Synlait's commitment to elevating people and planet to the same level as profit was recognised in June 2020 when it became part of the B Corp™ community. They operate from six manufacturing sites throughout NZ, employing over 900 people. | Dunsandel, Canterbury | Boiler Two conversion from coal to Biomass | Synlait currently operate 3 coal boilers at their Dunsandel site. Boiler 2 (which is 15MW and currently runs on coal) will be converted to operate on 100% wood pellet. Once the boiler is fully optimised, it will reduce CO2 emissions at the site by approximately 40,000 tonnes per annum. | \$611,500 | 199,500 |
| Napier Pine Limited | Napier Pine began trading in 1999 as a small sawmill operation with just 4 employees. With continuous re-investment of profits into the business and the local economy, their business has grown and the workforce has gradually increased to over 60 employees by 2017. In 2018, Napier pine further demonstrated their commitment to the Hawkes Bay by the completion of a multi-million dollar sawmill facility in Hastings. Napier Pine exports high grade radiata products in the region of 50,000m3 p.a. to Europe, USA, Asia and Australia. | Hastings | Napier Pine Wood Boiler Project – replacing 4MW natural gas boiler | Napier Pine will purchase a brand new 4MW biomass boiler that will operate at their Hastings site. The biomass boiler will supply steam to their wood drying kiln and eliminate gas consumption. The bark, shavings and sawdust used to fuel the biomass boiler are produced on-site negating the need for product to be shipped to site. | \$995,000 | 104,125 |
| Westland Dairy Company Limited | Westland Dairy Company are the 4th largest NZ dairy company, employing over 500 people with milk supplied by over 400 farms across the West Coast and Canterbury. Milk processing results in products such as milk powder, proteins and cream products that are consumed across a wide range of baking, nutritional and consumer products (such as yoghurt, cheese, icecream, confectionary and beverages). | Hokitika, West Coast | Westland Milk Products Demand Reduction Implementation | This project seeks to make a tangible difference to Westland's thermal fuel consumption by implementing several process and utility improvement projects which will enable the site to prepare for future decarbonisation investment. | \$1,768,800 | 168,800 |
| AFFCO New Zealand Limited | AFFCO has been at the forefront of the meat industry for over 100 years. They export more than 150,000 tonnes of lamb and beef meat products to over 80 countries each year. In addition, they also produce veal, mutton, goat, leather, hides, protein meals, tallow, wool and blood serums. AFFCO is part of the Talleys Group of companies and employs over 2800 people across 9 plants throughout NZ. | Malvern, Canterbury | SPM Malvern Boiler to Heat Pump conversion | Replacement of coal fired boiler with high temperature heat pumps. | \$950,000 | 69,080 |
| AFFCO New Zealand Limited | AFFCO has been at the forefront of the meat industry for over 100 years. They export more than 150,000 tonnes of lamb and beef meat products to over 80 countries each year. In addition, they also produce veal, mutton, goat, leather, hides, protein meals, tallow, wool and blood serums. AFFCO is part of the Talleys Group of companies and employs over 2800 people across 9 plants throughout NZ. | Awarua, Invercargill | South Pacific Meats Awarua Biogas Project | Use biogas captured from the covered anaerobic lagoon as a fuel to heat water. This will reduce the reliance on using coal/LPG to generate hot water for sterilisation, and thereby create a path forward to a lower carbon site. | \$406,083 | 34,600 |

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|-----------------------------------|--|----------------------------|---|--|-------------------------|--|
| Alliance Group Limited | Alliance Group is a leading farmer co-operative exporting lamb, beef, venison and co-products to more than 65 countries. Alliance utilises world-class technology, meticulous production values, the highest levels of ethical production and strong adherence to environmental sustainability, that all contribute to a reputation for food excellence. They employ over 5000 people and operate 8 processing plants that are strategically located close to prime stock producing areas: 2 in the North Island and 6 in the South Island. They deliver around 15% of the world's export traded sheepmeats, produced chilled or frozen for wholesale trade through to direct retail sale. | Pukeuri (Oamaru) | Pukeuri Heat Pump Project | Heat capture from Refrigeration plant to produce high temperature water using industrial heat pumps to displace coal use. | \$1,683,400 | 180,600 |
| Alliance Group Limited | Alliance Group is a leading farmer co-operative exporting lamb, beef, venison and co-products to more than 65 countries. Alliance utilises world-class technology, meticulous production values, the highest levels of ethical production and strong adherence to environmental sustainability, that all contribute to a reputation for food excellence. They employ over 5000 people and operate 8 processing plants that are strategically located close to prime stock producing areas: 2 in the North Island and 6 in the South Island. They deliver around 15% of the world's export traded sheepmeats, produced chilled or frozen for wholesale trade through to direct retail sale. | Lorneville, Southland | Lorneville Energy Optimisation and Electrification Opportunities | Process heat demand reduction and electrification project at a meatworks plant | \$1,591,300 | 134,920 |
| Silver Fern Farms Limited | Silver Fern Farms are New Zealand's largest livestock processing and marketing company. They are a leading procurer, processor, marketer and exporter of premium quality lamb, beef and venison, to over 60 countries. They produce 30% of all New Zealand lamb, beef and venison, in partnership with 16,000 sheep, beef and deer co-operative farmers, across 14 plants with 7,000 staff in the peak of the season. | Belfast, Christchurch | Belfast Hot Water Heat Pump Project | Project is to install a high temperature heat pump to pre-heat hot water for the processing plant, reducing coal consumption. | \$795,300 | 59,480 |
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| Goodman Fielder NZ Limited | Goodman Fielder are a leading regional food company. They manufacture, package, distribute, market and sell a wide range of food products including dairy, baked and grocery items for Kiwis. They produce many consumer brands that people know and love including: Meadow Fresh, Helga's, Wonder White, Puhoi Valley, Crest, MeadowLea, Edmonds, Vogel's, Molenberg and many more. They also export Meadow Fresh UHT milk internationally. They have 13 manufacturing sites in New Zealand and employ 1800 people. | Longburn, Palmerston North | Longburn High Temperature Heat Pump Project | Installation of a High temperature heat pump using waste heat from refrigeration units to reduce LPG consumption by 1,200tCO2/annum (25% of site CO2 emissions). | \$210,000 | 24,000 |
| Woolworks NZ Limited | Woolworks NZ Limited is the sole service provider for wool scouring in New Zealand, with sites in Napier, Hastings, and Timaru. WoolWorks handles approximately 106,000 tonnes or 76 per cent of all wool grown in New Zealand and is the largest single wool handler in the world. The Washdyke operation employs more than 50 staff and is a significant contributor to the local economy, spending \$10 million through wages, utilities and contractors each year. In 2006, there was a \$20 million upgrade of the Washdyke site, making it the most modern wool scour in the world. Since then, WoolWorks NZ has continued to invest approximately \$3.5 million per annum into modernising their operations to become the lowest total useful energy early processor on the planet. | Washdyke, Timaru | Electrode boiler, high temperature heat pump, and demand reduction. | Utilisation of low carbon technologies and energy efficiency to replace a 6 MW coal fired steam boiler. | \$3,650,000 | 267,340 |

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| McCain Foods NZ Ltd | <p>McCain Foods processes more than 200,000 tonnes of potatoes and vegetables annually which supplies major fast food and supermarket chains, food services and restaurants. It has two processing plants in New Zealand (Timaru and Hastings) with a permanent workforce of more than 300 employees nationwide.</p> <p>The Timaru plant operates 24 hours, seven days a week to process potatoes into a range of consumer frozen chip products.</p> | Washdyke, Timaru | McCain Foods Timaru Boiler Conversion and Fryer Heat Recovery | McCain Foods will convert existing coal boiler to biomass fuel to reduce carbon emissions. In addition it will implement heat recovery from the frying system to reduce steam demand. | \$2,876,500 | 845,375 |
| JS Ewers Limited | <p>JS Ewers is one of the largest producers of both indoor and outdoor produce in New Zealand. They have been growing and selling premium quality produce throughout New Zealand for the past 45+ years including tomatoes, capsicums and eggplants. Today they operate one of the most sophisticated growing operations in the world with 13 hectares of glasshouse and 250 hectares of outdoor land producing vegetables 365 days of the year. They work to ensure their crop's journey from seed to customer follows a sustainable path and each step is given the nurturing attention it deserves. They employ up to 200 people a growing season.</p> | Richmond, Nelson | Glasshouse Heat Demand Reduction and Low Carbon Fuel Switching | Reducing CO2 emissions by replacing current coal boilers with advanced biomass plants. | \$4,078,000 | 673,050 |
| Open Country Dairy Ltd | <p>Open Country Dairy is New Zealand's largest independent dairy manufacturer and the second largest dairy exporter of whole milk powder in the world. Open Country Dairy's purpose is to deliver the world, the highest quality dairy ingredients, made from premium New Zealand milk. Since 2004, they export quality Milk Powders, Milk Proteins, Milk Fats and Cheeses around the world. They operate from multiple processing sites across New Zealand including: Auckland, Horotiu, Waharoa, Wanganui and Awarua.</p> | Waharoa, Waikato | Reducing emissions with Waharoa Boiler 1 conversion through fuel switching from coal to Biomass. | Boiler 1 (11 MW steam boiler) : Open Country Dairy will convert an existing coal fired steam boiler to wood pellets. | \$1,735,750 | 226,340 |
| Open Country Dairy Ltd | <p>Open Country Dairy is New Zealand's largest independent dairy manufacturer and the second largest dairy exporter of whole milk powder in the world. Open Country Dairy's purpose is to deliver the world, the highest quality dairy ingredients, made from premium New Zealand milk. Since 2004, they export quality Milk Powders, Milk Proteins, Milk Fats and Cheeses around the world. They operate from multiple processing sites across New Zealand including: Auckland, Horotiu, Waharoa, Wanganui and Awarua.</p> | Waharoa, Waikato | Reducing emissions with Waharoa Boiler 2 through fuel switching and efficiency improvement. | Boiler 2 conversion and efficiency improvement at Waharoa: The second project will convert another existing coal fired steam boiler to wood pellets and install a Reverse Osmosis boiler feed water treatment plant that will reduce steam wasted from purging water impurities. | \$3,264,250 | 594,500 |