

Thankyou for this opportunity to speak today. I am Robert Gardyne, a semi-retired farmer from the Ida Valley who now lives in Alexandra. While I am not directly affected by this proposal for this Solar Farm, what I can share with you today is a very intimate knowledge of the property itself. When we sold our farm in the Ida Valley in 2021 we kept our ewe flock, grazing them on other farmers land. Geof and Lauren Shaws property was one of several properties our stock grazed on till we finally sold our ewes the end of February this year. During the time from April 2021 till February 2025 I did 3 lambings with our stud ewes over that period on the Shaws farm. With tagging ever lamb at birth meant going round all 12 paddocks once in the morning and once in the late afternoon, finding every new lamb in every paddock, catching them, tagging them and recording all the details. You have to catch every lamb when they are new, if you weren't to do that then you would find it almost impossible to catch them when they are older especially a set of twins or a set of triplets. Finding each new lamb each day for 30 days means covering every square inch of each paddock twice daily for those 30 days. It is fair to say I have become very familiar with the property, because some years ewes were in different paddocks I am intimately familiar with 20 paddocks in total.

What I can't emphasise enough today is how undulating this property is. Because of all the undulations, whole paddock after whole paddock are not visible from either the Back road or the Ranfurly/Naseby road. Part of other paddocks are visible from one road or the other and some are totally visible at the moment from either the Back Road or the Ranfurly/Naseby Road, but that is before any trees are planted to screen the vision from either road. Considering the size of this Solar Farm (from my intimate experience with the property) the visual impact will be minimal due to all the undulations across the property and the proposed boundary plantings to screen the paddocks next either public road.

One concern I do have is the height of the beam that will carry the panels. At mid day and at night they need to be at a height that a person on a 4 wheeler can see under and drive under. This is very important so that sheep can be looked daily for any that may be cast or have fly-strike etc and to

allow a 100% muster when shifting stock. This needs to be addressed before it is built, it would be too late to address this issue afterwards.

The need for this Solar Energy cannot be over emphasized. The Matuara Valley Milk factory at McNab just out of Gore has electrified one of its two boilers. Just that one boiler uses more electricity than all of Gore's houses, businesses and industries put together. Fonterra at Edendale has converted its first boiler to electricity and is going to convert 2 more as part of reducing its carbon emissions 50% by 2030. Open Country at Awarua has already converted one of its 3 boilers to electricity. The three milk companies in Southland have between them a total of 10 boilers which eventually will all need electricity, all the same size as the boiler at Matura Valley Milk.

Southland also has 6 Meat processing plants. Silver Fern Farms is well on the way to lowering its emissions at Charlton and Finegand. Alliance has already replaced all of its heat pumps across all its Plants (Nelson, Pukeuri, Lorneville and Matura) and is about to replace all its coal fired boilers across all plants some will be Biogas but most will be electric.

What needs to be remembered is that Fonterra Edendale is the Largest Dairy factory in the Southern Hemisphere if not the world and that is before they add on their new 150 million dollar UHT milk plant which will be completed next year. Alliance Lorneville is the Largest meat plant in NZ followed by Silver Fern Farms Finegand plant being the next biggest.

A few years ago, I think 2020 when it wasn't definite that NZAS smelter would continue producing Aluminium at Tiwai Point the decision was made to upgrade the main transmission line north by installing 8cu metres of concrete under each foot of every pylon and doubling the number lines to take the 14% of NZ total electricity that would become available if that smelter closed down. That is not now going to happen, NZAS now have a 25 year contract and it is also the producer of the best quality Aluminium in the world, in fact it would like to start up its 4th pot line but can't because the electricity isn't available.

That upgrade of Transmission lines I mention because that is the very lines that this Solar Farm would hook into through the sub-station at

Fennessy Road. All the infrastructure is already there for this Solar Farm to take the Maniototo sunshine to power the large Southland industries as they have to decarbonize their plants to meet lower carbon emission targets.

Interestingly for Solar when the days are at their shortest that is the off-season for the milk and meat processors and their peak demand is when the days are at their longest.



Alliance commissions high temperature heat pumps at Maitara plant

Alliance has commissioned a major new electric heat pump system at our Maitara processing plant in Southland, marking a significant step in the site's transition away from coal-fired energy to further reduce our carbon footprint.

The three heat pumps are projected to deliver an annual carbon emissions reduction of more than 6,400 tonnes, the equivalent of taking 3,250 cars off the road every year.

The system includes another first for New Zealand innovation, enabling the plant to use heat extracted from the Maitara River to further improve efficiency.

The initiative is part of Alliance's continued commitment to sustainability and decarbonisation.

This heat pump system alone will eliminate around 60 percent of the site's carbon emissions.

Previously, the site's refrigeration and heat systems operated independently. We've now integrated them, a complex engineering challenge that enables us to recover waste heat from the refrigeration system as well as pulling heat from the river.

The Maitara upgrade follows the successful installation of similar high-temperature heat pumps at our Nelson, Lorneville and Pukeuri plants.

A second phase of the project is now underway, involving the design of a smaller, energy-efficient boiler system powered by electricity or biomass.

Once this is completed and the plant's existing coal-fired boiler is decommissioned, the combined system is expected to cut emissions by a total of 14,460 tonnes per year.

The \$6.2 million Maitara project included \$750,000 in co-funding from the Government Investment in Decarbonising Industry (GIDI) Fund.

EDENDALE

New boiler step towards lowered emissions

■ ELLA SCOTT-FLEMING

FONTERRA staff unveiled the first of its fossil-fuel-free boilers yesterday and announced the co-op will invest \$70 million in two more at its Edendale site, in another step towards its goal of halving its carbon emissions by 2030.

The major milestone was marked yesterday with the official ribbon-cutting of a new electric boiler at its Southland milk powder plant, replacing one of the site's five coal-fired burners.

The ceremony, attended by Minister of Climate Change and Energy Simon Watts, Invercargill MP Penny Simmonds, representatives from the Hokonui and Waihopai Rūnanga, Environment Southland and two Southern mayors, celebrated what Fonterra described as a key step in its "decarbonisation journey".

Fonterra chief operating officer Anna Palairot announced construction of two more electricity-powered boilers will begin shortly and are expected to be operational by August 2027.

She said the new and incoming



Unveiling ... The new electric boiler plant at Fonterra Edendale.

PHOTO: GREGOR RICHARDSON

boilers will help the company achieve a 50.4% reduction of carbon emissions by 2030.

General manager of operations for the lower South Island Andrew Johns said the upcoming \$70m project would engage more than 400 local and national contractors.

The newly installed boiler was designed by a team of engineers in Napier, made in China and

then put together and constructed by New Zealand-based personnel, Mr Johns said.

He said the company endeavoured to hire Southland workers when possible, but the infrastructure or ability to build this new kind of asset in New Zealand was still growing.

Addressing the crowd, Mr Watts said growing the economy was "interconnected" with meet-

ing emissions targets.

He said businesses in the private sector such as Fonterra were leading the innovation charge and sometimes it was best for the government to get out of the way of business and industry.

The government was doing anything it could to remove the "red or green tape" to create less friction in the system, he said.

He said the government wanted to partner with industry and Fonterra's farmers across the country as they were the "backbone of our economy".

During the tour, spectators saw the beginnings of the construction site of the plant's UHT milk plant which will be completed in 2026.

Mr Johns said the thermal heat generated from the five existing boilers, and the two more to come, could be distributed to any of the factories on site — "whether it's making cream products or powders or proteins", he said.

Fonterra's Edendale plant is New Zealand's oldest dairy processing site, established in 1881. ella.scott-fleming@alliedpress.co.nz



Filling up . . . Meridian Energy's Manapōuri power station.

PHOTO: MERIDIAN ENERGY

SOUTH ISLAND

Tiwai Point to ramp up production

THE Tiwai Point aluminium smelter is ramping back up as hydro lakes further north have received more rain.

Meridian Energy said in a statement yesterday that it and New Zealand Aluminium Smelters Limited (NZAS) had agreed NZAS would ramp up production from June 16 to bring the current demand response to an end early, targeting a completion date of August 11.

It had been set at November 25 but will now end more than three months earlier than that.

NZAS will notify Meridian if the target completion date changes.

The demand response option in place is Option 4. This is normally 185MW but has been modified to 50MW.

"New Zealand's hydro storage is looking much healthier than it was just a few weeks ago, so we are now confident regarding security of

supply this winter. As a result, we want NZAS to get back to business," Meridian Energy chief executive Mike Roan said.

"This is another example of how willing NZAS is to support New Zealand's electricity system while making some of the purest, renewable aluminium on the planet and we are hugely appreciative of that."

Meridian will next have the ability to call for demand response Option 3 (100MW) or Option 4 (185MW) under the demand response agreement between the parties to take effect from April 12 next year. It will next be able to call demand response Option 1 (25MW) no sooner than 60 days after this ramp up finishes and Option 2 (50MW) no sooner than 90 days after this ramp up finishes.

There had been concerns about hydro storage earlier this year.

New Zealand's controlled hydro

catchments — the main driver to keep the lights on during winter — had had the driest start to the year in 93 years of historic records, a statement from Transpower said in late April.

But rain had arrived in the catchments of the hydro lakes and helped to fill them up.

Hydro power supplies about 57% of the nation's electricity supply.

Minister of Energy Simon Watts earlier announced changes to drawdown limits at Lake Manapōuri and Lake Te Anau.

Mr Watts said the changes would deliver an extra 45GWh of energy from the Manapōuri Power Scheme each year — enough energy to power around 6000 homes.

It was an important step in the government and the sector's work to protect the security of the country's energy supply for the future, Mr Watts said. — PL