



Aide Memoire

Title	GIDI - NZ Steel’s Project “Electron” Announcement
Date	10/05/2023
To	Rt Hon Chris Hipkins, Prime Minister Hon Dr Megan Woods, Minister of Energy and Resources Hon James Shaw, Minister for Climate Change
From	Andrew Caseley, EECA Chief Executive Sharon Corbett, Policy Director, Energy & Resource Markets, MBIE James Coombes, Manager, ETS Emissions Pricing Policy, MfE
EECA reference number	EECA MEMO 141
Attachments	Appendix One: Key attendee bios Appendix Two: Background Questions and Answers

Purpose

1. This aide memoire provides you with information ahead of your public announcement of the co-funding of NZ Steel’s decarbonisation project, known as Project “Electron”, through the Government Investment in Decarbonising Industry (GIDI) fund.
2. This event is also an opportunity to raise awareness of the continued impact the GIDI fund is making to reduce New Zealand’s energy-related emissions in response to climate change.

Event Details

Event Logistics

3. The event will run from 11.00 am – 3.00 pm on Sunday 21 May at NZ Steel’s Glenbrook Steel Mill, 131 Mission Bush Road, Glenbrook 2681 (see map on the following page).
4. **A full runsheet for the event has been provided separately.** The Prime Minister, Minister Woods and Minister Shaw will arrive and receive a pōwhiri and a formal welcome at

12.00pm followed by a quick safety induction and a site tour with VIPs and a media opportunity for photos.

5. The formal announcement will then be made at 1pm by the Prime Minister. After the Prime Minister has spoken, Minister Woods and Minister Shaw will both speak, followed by a media stand-up and 30mins of 1-1 interviews.
6. We have provided draft speech notes to your offices and a Ministerial press release will be made at the same time (also provided to your offices).
7. You will then have an opportunity for refreshments before departing at 3.00pm

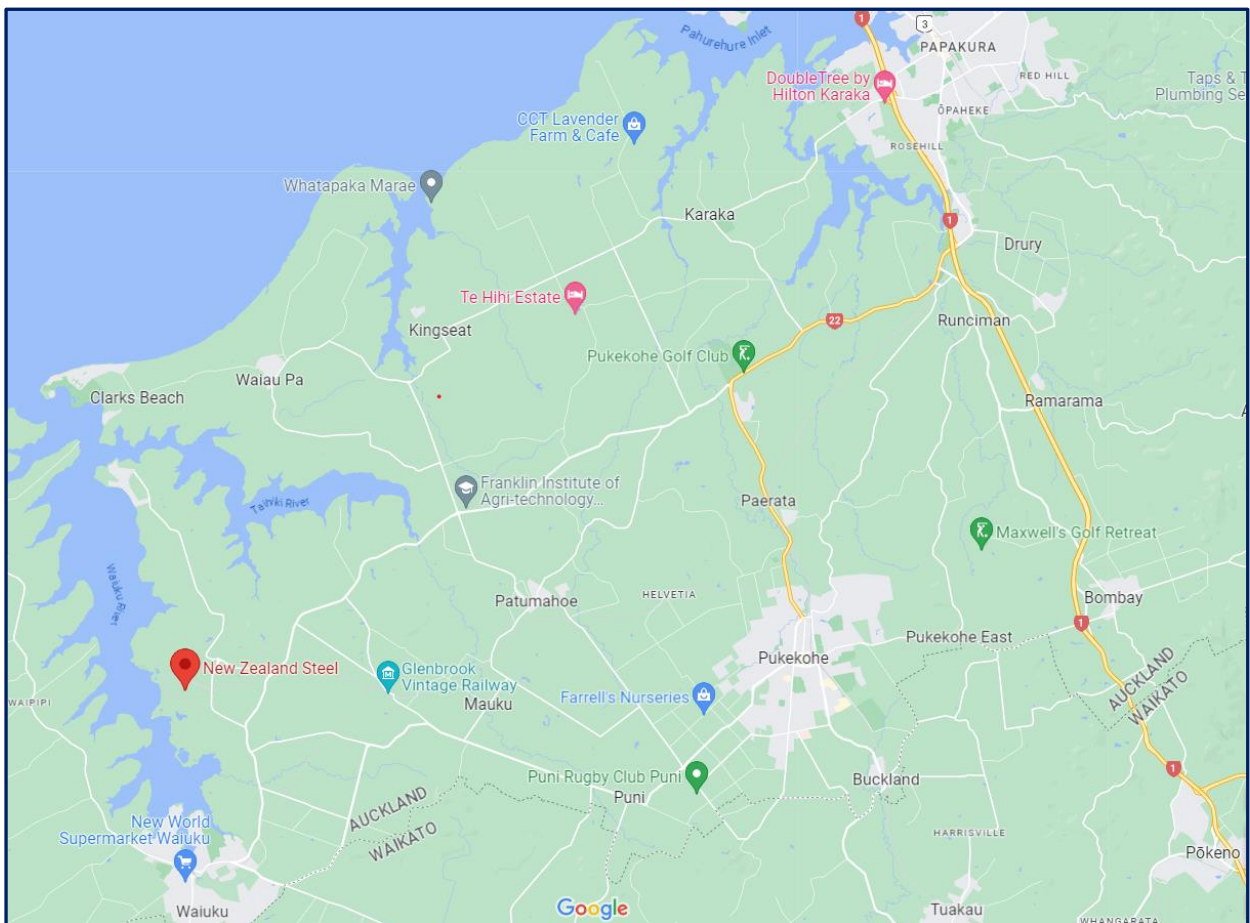


Figure 1: NZ Steel's Glenbrook Steel Mill Location Map (131 Mission Bush Road, Glenbrook 2681)

Attendees

8. You will be met by Mark Vassella (CEO, BlueScope Australia & New Zealand) and Robin Davies (Chief Executive, NZ Steel) on arrival.
9. Officials in attendance are listed below.

EECA	Andrew Caseley (Chief Executive), Elena Trout (Board Chair), Michael Henry (Manager, Business)
MBIE	Justine Cannon (General Manager, Energy & Resource Markets), Sharon Corbett (Policy Director)
MfE	James Palmer (Chief Executive), James Coombes (Manager, Emissions Pricing Policy)

10. Please refer to **Appendix One for key attendee bios.**

About NZ Steel

11. NZ Steel is the primary producer of steel in New Zealand and a subsidiary of the international company BlueScope Steel. NZ Steel operates an integrated steel mill in Glenbrook, South Auckland, which currently uses locally-sourced iron sand and coal to manufacture a range of steel products for domestic and international markets. The Glenbrook steel mill directly employs over 1000 people full time and is a key part of New Zealand’s industrial infrastructure.
12. NZ Steel produces approximately 660,000 tonnes of steel each year and supplies approximately 70% of New Zealand’s domestic steel consumption. It provides a range of hot rolled, plate, coated and pre-painted steel products which serve several sectors including the construction, manufacturing, infrastructure and agriculture industries.
13. NZ Steel currently manufactures steel through a globally unique process by deriving molten iron from iron sand and coal using a series of multi-hearth furnaces, kilns and smelters. The molten iron, with added scrap steel, (from NZ Steel’s own processes), is then fed into an oxygen furnace to produce steel.
14. This production process is an inherently emissions intensive activity, primarily due to the consumption of coal to produce molten iron. The current annual emissions (from all sources) of NZ Steel are approximately 2.2 million tonnes of CO₂e. This equates to approximately 2.7% of New Zealand’s gross national emissions annually.

NZ Steel's GIDI project

15. NZ Steel's partnership with Government represents a very significant decarbonisation opportunity that is likely to be the single largest decarbonisation project that could arise countrywide.
16. The decarbonisation project will involve the installation of an electric arc furnace (EAF) at the Glenbrook Steel Mill to reuse scrap steel for almost 50% of their current steel production. The technology is proven and widely used (including within BlueScope in the US) globally¹. The potential exists, if sufficient scrap steel can be sourced, to increase EAF steel production and thereby deliver even greater emission reductions at no further cost to the Government.
17. After an approximate three-year construction (including key equipment lead times) commissioning phase, NZ Steel estimates it will cut 800k tonnes of CO₂ emissions per annum (the equivalent of taking around 300,000 cars off the road). The anticipated three-year build phase means the emissions abatement will begin to arise from late 2026 early 2027.
18. The emissions reductions expected to be achieved from this single project is likely to contribute approximately 5.3 per cent of the required emissions reductions within emission budget two (2026-2030) and approximately 3.4 per cent of the total required within emission budget three.
19. This is approximately 13.4 per cent of the emissions reductions that the first Emissions Reduction Plan forecasts from the Energy and Industry sector in emissions budget period two and approximately 11.4 per cent in emissions budget period three.
20. The conditional agreement (conditions relate to completion of the feasibility study including key supply contracts for the operation of the EAF and key ETS settings, RMA consents, and final BlueScope Board approval for the project to proceed) will be co-funded by the GIDI Fund, with the rest funded directly by NZ Steel, with NZ Steel taking risk on project cost escalation. The agreement represents a total Government contribution of up to \$140m, made up of three components:
 - base build funding support up to \$110m
 - an additional \$10m commissioning funding incentive paid if NZ Steel has the furnace up and running by January 2027
 - a further \$20m of performance funding paid upfront (this will be clawed back in full or partially if they fail to meet the targets set) if NZ Steel can achieve a further 800,000 tonnes of emissions reductions by 31 December 2030 over and above the base amount committed to in the agreement.

¹ Scrap steel EAF makes up 20% of global crude steel production (<https://www.iea.org/data-and-statistics/charts/production-of-crude-steel-by-route-in-the-net-zero-scenario-2018-2030>).

21. The Agreement is for NZ Steel to reduce their emissions by 7.2m tonnes over the 9 year period of the Agreement and with proportionate clawback provisions if they fail to do so with minimum domestic steel production levels as part of the Agreement. The Agreement also includes various off ramps for NZ Steel should defined events occur and with defined consequences if these off ramps are exercised.
22. The project has significant side-benefits including electricity demand response flexibility through an appropriately structured PPA, the retention of onshore steel production thereby securing the NZ supply chain for a critical construction and manufacturing product, the retention of high-paying employment associated with the ongoing long-term operation of the Glenbrook Steel Mill and the implementation of the circular economy by greater on shore utilisation of scrap steel. The Glenbrook steel mill employs over 1,000 full-time staff and supports many service businesses.

Overall progress on GIDI

23. Including the NZ Steel announcement and assuming the Agreement goes fully unconditional, \$219.5m will have been allocated to 67 projects, leveraging around \$195.7M in private funding. These GIDI projects are estimated to achieve an anticipated annual carbon abatement of 1,191,017 t of CO₂, and a lifetime carbon abatement of 24.12 Mt of CO₂ (equivalent of taking approximately 440,000 cars off the road).
24. So far, we have seen a good spread of projects across New Zealand, across new technologies and with many examples of innovation. EECA will continue to work alongside industry to identify opportunities to bring forward decarbonisation projects to contribute to New Zealand's broader emissions targets.

Aide Memoire

Appendix One: Key attendee bios

Robin Davies, NZ Steel

Robin Davis is the CEO of New Zealand Steel (NZ Steel) and has held this position since 2017. Prior to this, he was the General Manager of Sales and Marketing for BlueScope's business in and the Pacific Islands and the President of NorthStar (an US based subsidiary company of BlueScope). Mr Davis, has 30 years of international experience in the industry including the UK, New Zealand and the US. He holds a Mechanical Engineering Bachelor's degree from Cardiff University.



Mark Vassella, BlueScope Steel (parent company)

Mark Vassella is the CEO, Managing Director, Executive Director for BlueScope in Australia and New Zealand. Prior to his current role, Mr Vassella was the President of BlueScope Steel's North American business and held executive positions in BlueScope's Australian Distribution & Solutions business unit. He holds Australian university degrees in Business Administration and Commerce.



Andrew Caseley, EECA

Andrew is EECA's Chief Executive based in Wellington



Justine Cannon, MBIE

Justine is the General Manager for the Energy & Resource Markets branch of MBIE.



Sharon Corbett, MBIE

Sharon is a Policy Director within the Energy & Resources Markets branch of MBIE.



James Coombes, MfE

James is the Manager of Emissions Pricing Policy within the Climate Change Directorate at MfE.



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