

3 June 2015

**Climate Change Contribution Consultation
Ministry for the Environment
PO Box 10362
WELLINGTON 6143**

via e-mail: climate.contribution@mfe.govt.nz

RE: New Zealand Steel submission on setting New Zealand's post-2020 climate change target

To Whom It May Concern

Thank you for this opportunity to share New Zealand Steel's view on the important task ahead of you in setting New Zealand's post 2020 climate change target.

Summary

New Zealand Steel would like to raise the following:

- The overall New Zealand climate change target needs to be set in a way that allows each sector to contribute in a fair and transparent way.
- Setting a New Zealand target without a strong link to each sectors' capability to deliver, would have far reaching consequences for employment and the economy.
- There are no proven and commercially viable technologies anywhere in the world to replace the primary ironmaking processes that rely on coal as the key reductant in the manufacture of steel.
- New Zealand Steel is proactively adapting new methodologies and efficiencies to incrementally lower our carbon emissions.

Introduction to New Zealand Steel

New Zealand Steel has contributed to the New Zealand economy for 50 years. We operate a fully integrated steel mill in Glenbrook, South Auckland, manufacturing a large range of steel products from locally sourced materials for use in building, construction, manufacturing and agricultural sectors.

New Zealand Steel contributes around 1 per cent of New Zealand's GDP and employs over 1500 people and indirectly creates employment for a further 5000 people.

We are part of a wider metals industry, which contributes over 7 per cent to annual New Zealand GDP. Furthermore, direct metals-based product manufacturing employs over 26,000 people.

Agreement with objectives

New Zealand Steel believes that the objectives for New Zealand's contribution should be that:

- it is seen as a fair contribution – both by international and domestic audiences.
- it is achievable, given New Zealand's unique circumstances and the state of technological development.
- costs and impacts on society are managed appropriately, and
- it must guide New Zealand over the long term in the global transition to a low emissions world.

New Zealand's unique situation

New Zealand Steel supports an INDC that would allow NZ to contribute in a fair and achievable way in the transition to a carbon neutral economy, taking into consideration all factors affecting the ability of each sector to reduce its carbon footprint.

The nature of New Zealand's emissions profile is unique when compared to the rest of the OECD. The specific impact of our agricultural and energy sectors needs to be recognised. These include our high reliance on agricultural exports, as well as our relatively high population growth compared to most other developed countries. These factors underline the importance of a target for New Zealand that is economically proportionate to those taken on by other countries, and is achievable given the current and foreseeable technology available to reduce or offset the country's emissions.

When considering what INDC target to set for New Zealand, we need to remain cognisant of the sectoral ability to achieve this without detrimentally affecting the domestic and export competitiveness of the businesses within New Zealand. There must be a clear and tangible link between the INDC target and the ability of the sectors to achieve it.

To ensure this, the government should consider factors relevant to each sector when setting the target.

For instance, the discussion document looks at the costs associated with setting this target. Direct costs can be readily identified but we also believe the indirect costs need to be carefully considered. The level of carbon charge described in the document would significantly impact a number of sectors across New Zealand. If the cost of carbon was to rise, the impact to the country's GDP would be significant. Any cost impact on annual household consumption should be similar to the cost impact proposed by other OECD countries.

Specific factors relevant to New Zealand Steel

The key policy tool for the reduction of emissions is the New Zealand ETS, which places a price on each tonne of greenhouse gas emitted. The impact of the target and the subsequent review of this policy must consider the capabilities of each sector to reduce their emissions.

Steelmaking is one area where the only mitigation for reducing carbon usage would be cessation of manufacture. If steel is no longer manufactured in New Zealand, the requirement for steel products is unlikely

to change, and therefore steel will be imported. This could lead to a lower New Zealand carbon footprint but would not necessarily be a better global solution.

Although we acknowledge that this consultation round is focused on setting the target, rather than the domestic policy used to achieve the target, it is important to note at this stage that the cost of carbon is a factor that would need to be carefully considered by New Zealand Steel when assessing our future viability and investment strategies. A direct carbon charge on our steelmaking operations in New Zealand must be proportionate to the cost imposed on the rest of the world (including our major trade competitors), such that our competitiveness is not irreparably and unequivocally impacted. A disproportionately increasing cost in carbon may result in steel manufacture being forced offshore, which has implications for New Zealand's employment and economic activity.

New Zealand Steel supports a sustainable mechanism to manage the emissions target with the caveat that this does not impact our domestic and international markets by imposing costs that are not borne by our competitors.

Emerging technologies and steps New Zealand Steel is taking to contribute to carbon emissions reduction

The longer term emissions reduction target needs to consider emerging technologies and the possible benefits to a sustainable economy. Invariably, new technologies carry significant capital expenditure costs associated with their implementation.

For businesses like New Zealand Steel, our facility design lifecycles need to be considered when comparing our operations relative to other manufacturing sectors. Specifically, New Zealand Steel has invested significantly in large, long life cycle, capital intensive processes that are uniquely designed to cater for the processing of iron sands in steel production. The long term and specialised nature of these investments is a significant factor in our ability to adapt to, or adopt future changes in technology.

From an iron and steel perspective, there are no proven and commercially viable technologies to replace the primary ironmaking process routes that rely on coal as the key reductant in the manufacture of steel. While there is a significant global R&D effort focussed on the reduction of CO₂ emissions from ironmaking processes, the majority is focussed on optimising existing processes. There are a limited number of emerging, alternative ironmaking technologies but these are still decades away from widespread commercialisation. It is unlikely that these options could be realistically factored into the development of any country's short to medium term emission reduction targets. For New Zealand Steel, the development of an alternative low carbon technology for its iron sands processing route is equally unlikely in this timeframe.

In saying this, New Zealand Steel is embracing emerging technologies with a relevance to our business and is taking steps to utilise these to incrementally contribute to lower carbon emissions. Such initiatives include:

- Biomass generated coke sources (CarbonScape)
- Electricity utilisation
- Waste gas co-generation
- Process waste recycling
- Transportation optimisation

From 2005 to 2015 New Zealand Steel was a proud supporter of technology company LanzaTech, which developed a bio-chemical process to convert carbon-monoxide rich gases into ethanol fuel and other chemicals. During this time LanzaTech operated a pilot plant on New Zealand Steel's Glenbrook site, to trial and prove the technology.

New Zealand Steel appreciates the opportunity to share our thoughts on the document 'New Zealand's Climate Change Target' and looks forward to working with the government on achieving a sustainable and economically viable future for New Zealand.

We are happy to be available to discuss this matter further should Ministry for the Environment officials wish.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Margaret Gracie', with a stylized flourish at the end.

Margaret Gracie
Vice President People & External Affairs