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SUBMISSION TO THE CLIMATE CHANGE COMMISSION - 2021 DRAFT ADVICE FOR CONSULTATION

1. New Zealand Steel Limited and Pacific Steel (NZ) Limited (jointly, *NZ Steel*)[1] welcome the opportunity to provide feedback on the Climate Change Commission's (*Commission*) 2021 Draft Advice for Consultation (*Draft Report*).

2. The Commission has done a significant amount of good work in developing this draft advice to the Government on steps New Zealand should take to create a climate-resilient and low emissions country.

Our vision for the future of steel in a net zero Aotearoa

3. NZ Steel recognises the challenge that climate change presents to New Zealand and the world. We agree with the Climate Change Commission, and others, that action is needed now and there are achievable, affordable and socially acceptable pathways to achieve the 2050 targets. Like all New Zealanders and New Zealand businesses, NZ Steel has a part to play and a contribution to make.

4. In our vision of a net zero 2050 New Zealand, domestic steelmaking[2] has played and continues to play a key role in the New Zealand economy. We think Aotearoa is in a strong position to show the world how industrial processes, and steelmaking in particular, can form part of a functioning and sustainable net zero emissions economy. New Zealand's abundant low emissions energy sources and capacity for meaningful forestry offsetting presents a strong opportunity to ensure that hard to abate sectors, such as steelmaking, can continue to provide essential products until technological developments enable transition to low or no emissions processes.

5. The retention of domestic steelmaking is essential for New Zealand's net zero future and is a vital aspect of the domestic economy. Domestic steel will support strong domestic

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[1] NZ Steel comprises the only domestic fully integrated producers of flat, rolled steel and long products for the building, construction, manufacturing and agricultural industries. We produce steel to New Zealand's high standards, contribute over 4,000 jobs (directly and indirectly) to South Auckland and strengthen New Zealand's local, regional and national economy. Further details about our history, production processes and emissions reduction programme are in our submission on the Climate Change Response (Emissions Trading Reform) Amendment Bill which is available here.

[2] In this submission all references to 'domestic steelmaking' are to the manufacture of steel from iron sands at Glenbrook.

construction and infrastructure sectors, which have a central role in the transition to net zero. New Zealand construction and infrastructure sectors need to be able to source steel that is locally made, compliant with rigorous local quality standards (including seismic grade) and manufactured under a robust emissions regime with clear targets and environmental accountability – all of which can only be properly secured by ensuring viable domestic steelmaking capacity.

6. The rate of technological developments in the steel sector is such that we have confidence that commercial scale technology will emerge to enable commercial scale zero carbon steel manufacturing. However, unless successive governments ensure that the transition pathway to that future includes a level playing field for domestic and imported steel,[3] there will be no operator in New Zealand to adopt those technologies, and a new entrant to the market is highly unlikely.[4] Consequently, once lost, domestic steelmaking is very unlikely to return to New Zealand and the opportunity for zero emissions steelmaking in New Zealand will be permanently lost.

7. To realise a future that preserves the possibility of domestically made zero emissions steel, a 'bridge' between the present and 2050 is necessary. The Commission's transition pathway largely shares this view and, we consider, is overall a pragmatic 'bridge' to 2050. With respect to hard to abate sectors, such as steelmaking, we consider that the Commission's Draft Report has taken a sensible approach in:

    a. acknowledging the need for the Government to determine if it wants a domestic steel production in New Zealand; and

    b. charting a transition pathway that provides for the continuation of domestic steelmaking in recognition of the inherent strategic and economic advantages of domestic production, and the emissions leakage that would occur if Aotearoa were to become fully reliant on steel imports.

8. It is important to recognise that for a future involving a zero emission domestic steelmaking to be realised, it will be necessary for successive governments to have made consistent, clear and well-signalled decisions regarding emission policy settings. NZ Steel's business is highly exposed to impact from Government policy and resulting regulatory settings.[5] Consequently, clarity and consistency in policy direction is essential if we are to have the confidence and certainty to make investments in plant and operational improvements, renewable energy investments and investments in R&D and emerging technologies.

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[3] This level playing field needs to provide for domestic and imported steel to face similar regulatory obligations and costs, including the net cost of carbon (less any allocation or other relief) imposed on the manufacturing process. In New Zealand that level playing field is partially achieved through industrial allocation. The first principles review of industrial allocation is therefore critical to the maintenance of a level or near level playing field and is discussed below at paragraphs 71-75. In other jurisdictions (for example, the EU), the level playing field concept is expanded to include explicit government cooperation (including meaningful funding measures) to ensure a just transition is effected.

[4] NZ Steel is principally a domestic steelmaker for the New Zealand domestic steel market and certain steel demand in the Pacific Islands. This market simply does not have the scale necessary to incentivise the massive capital investment required for a new market entrant.

[5] Such exposure is not limited to emissions policy. Changes in policies relating to minerals, electricity, gas, waste and trade all dramatically impact our business and affect our ability to compete with imported product. By way of example, New Zealand has minimal trade dumping and subsidy duties in place (compared to other similar jurisdictions) further distorting trade advantages and undermining the level playing field.

9. The alternative future is the closure of domestic steelmaking and a complete reliance on imported steel products, with limited visibility over embodied emissions, increased transport emissions, and opaque offshore supply chains with less certainty over quality, cost and delivery timeframes. This future would have multiple flow on impacts for the wider economy and would be in conflict with the Commission's critical Principle 3 - Create Options.

10. In our view, the infinitely preferable future for New Zealand is the one enabled by the Commission. In that future steel is made locally, using local resources, employing New Zealanders and contributing skills to the economy, and under an emissions management framework of budgets, transition plans, and emissions pricing that ensures emissions reductions are appropriately incentivised.

11. In our submission below, we have taken up the Commission's invitation to review the matters of fact, assumptions and value judgements in the Draft Report, where we think our technical knowledge and unique industry perspective adds value.

EXECUTIVE SUMMARY

12. We strongly support many aspects of the Draft Report and Recommendations. In particular, we support:

    a. The Commission's base assumptions regarding the continued demand for steel and its budgetary provision for the continued operation of hard to abate sectors in the first three budgets;[6]

    b. The recommendation to develop a 'long-term strategy' for the future of hard to abate sectors including steelmaking, alongside a national energy strategy, future economic plans and strategies for an equitable transition;[7]

    c. The recognition that forestry can play a key role and is appropriate in offsetting emissions associated with hard to abate sectors,[8] including as an interim measure to enable development of zero emissions technologies and support the deployment of that technology, as and when it becomes available; and

    d. The focus on the decarbonisation of the energy system as a whole and the recognition of the need for abundant, reliable, secure and affordable renewable electricity.

13. However, as outlined below, we also consider that the Draft Report should be amended/expanded to reflect the following key suggestions:

    a. Expand the recommendation in relation to 'Necessary Action 8' to also provide for sector-specific strategies to support the 'long term strategy' for hard to abate sectors and to ensure these are cornerstone documents that provide clear direction for policy development and are mandatory considerations for Government decisions.

    b. The publishing of a response to the concerns raised by submitters, including the Major Electricity Users Group, related to the inconsistency and unrealistic

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6 Draft Report, Budget recommendations 1 and 2, pages 31 and 32.

7 Draft Report, Necessary Action 8, page 116.

8 Draft Report, page 115.

assumptions utilised in the Commission's modelling and economic impact assessment.

c. Whilst modelling and assumptions are important, we also recommend the Commission reconsider some of the underlying data sets, particularly with respect to electricity pricing over the three budgets periods – we suggest the Commission consider the electricity pricing necessary to achieve the macro electrification objectives in the Commission's advice.

d. The correction of inaccurate assumptions related to current NZ Steel emissions included in the Current Policy Reference Case (reversing the assumed 10% reduction impact following 2020's restructuring).

e. Inclusion of a sectoral breakdown of the emissions reductions necessary to achieve the 2035 60% renewable energy target included in 'Time-critical Necessary Action 3'.

f. Inclusion of a new recommendation within 'Necessary Action 5' that the Government consider regulatory reform to improve coordination and accountability between energy regulators.

g. Inclusion of a new recommendation in relation to 'Necessary Action 15' that the RMA reform process particularly consider the need for the planning system to deliver on the Commission's electrification pathway, to ensure there are available consenting pathways to enable increased renewable electricity generation that is reliable, low cost and firmed.

h. Include a more robust assessment of the implications of 'Necessary Action 9' on existing gas users, both in terms of replacement heating systems and in terms of increased costs of a smaller number of users related to the gas transmission and distribution network.

i. Expand 'Necessary Action 6' to include consideration of planning necessary to support hydrogen and biogas blends as a method to continue to support existing natural gas users, while providing for emissions reductions and greater resilience of the energy system.

STRUCTURE OF THIS SUBMISSION

14. The Draft Report raises a number of issues both directly and indirectly relevant to NZ Steel. This written submission comments on the Commission's recommendations in the following three areas of critical importance to NZ Steel:

    a. Hard to abate industries and the place of steel in Aotearoa's low emissions future.

    b. The Commission's proposed pathway – specifically in relation to:

        i. the underlying modelling and assumptions,

        ii. the advice relating to heat, industry and power, forestry, inter-material substitutions and offshore mitigation.

    c. The Commission's recommendations with respect to supply and price settings of the Emissions Trading Scheme, and necessary recommendations relating to the upcoming industrial allocation review.

15. To assist the Commission further, **Appendix A** provides responses to the Commission's specific consultation questions that are relevant to NZ Steel.

HARD TO ABATE INDUSTRIES IN A NET ZERO FUTURE

The case for steel and domestic steelmaking

16. As recognised in the Draft Report, Aotearoa is at a crossroads in emissions policy and has a choice to approach emissions policy in a manner that either enables or rules out domestic steelmaking.[9] As noted below we appreciate that the Commission has recognised the criticality of steel to the country's construction sector[10] and its acknowledgement that steel products are fundamental to the economy.[11] As set out in greater detail below, we support the Commission's proposed pathway for those industrial process businesses, like ours that fall into the hard to abate sector.

17. To provide support for the Commission's proposed pathway, this part of our submission provides support for Aotearoa's choice being exercised in a manner that enables continued domestic steel manufacturing. We consider below both the need for steel in general (including extent of the role for substitute products), and the social, economic and environmental benefits of the retention of steelmaking at Glenbrook. These issues have been traversed in greater detail in our previous public submissions, including our submissions on the Climate Change Response (Zero Carbon) Amendment Bill and the Climate Change Response (Emissions Trading Reform) Amendment Bill.

The need for steel generally

18. Steel has a critical role in the key industry sectors (housing, construction, infrastructure and farming) which support the growth and development of New Zealand and the wellbeing of New Zealanders.

19. As a building material, in most cases there is no substitute for steel. In particular:

    a. Steel is extremely ductile meaning it does not buckle, distort, warp or splinter. These properties make it an essential component in earthquake prone areas of New Zealand,[12] and provides superior structural performance in cases of building fires.

    b. The longevity and durability of steel (including its resistance to the impacts of weather) means that buildings constructed with steel tend to have longer useful lives and lower maintenance and replacement requirements. Consequently, the embodied carbon associated with their construction is extended over a longer period with less need for replacement or structural changes.[13]

    c. Steel is also infinitely recyclable without loss of quality – this feature is unmatched by other materials.[14] Steel can be recovered and recycled, resulting

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[9] Draft Report, page 115.

[10] Draft Report, page 111.

[11] Draft Report, page 115.

[12] See for example Pacific Steel's EISMIC® Grade 300E Bar And Coil product, which meets the demanding requirements of the seismic structural design methods employed in New Zealand as required by local standard AS/NZS 4671.

[13] World Steel Association, 'Sustainable Steel: At the core of a green economy' available here.

[14] We note that the Commission recognises the limitations of domestic scrap steel recycling and concludes that the "*emissions reduction opportunity is limited*." (Draft Report, Evidence Report Chapter 4a: Reducing emissions - opportunities and challenges across sectors, page 13.) However,

in almost zero construction/demolition waste. There is a very healthy international steel scrap market, which means that steel as a building material is uniquely positioned to be able to contribute to the circular economy.[15]

d. Finally, steel can easily be prefabricated, which not only contributes to improved construction time and cost efficiencies, but also contributes to reducing construction material waste – which is a major issue for other building material alternatives.[16] In the context of New Zealand's affordable housing shortage, steel prefabrication presents opportunities for homes to be constructed quickly, with lower construction costs, maximising usable living areas on small sites and minimising construction amenity impacts on neighbours.[17]

20. Steel is also an essential component in many of the applications that are necessary to support the Commission's pathway.[18] The urban intensification and public transport developments that are essential for the reduction of transport emissions will undoubtedly rely on steel products and components. The electrification of process heat and transportation systems will only be possible with supporting electricity generation and transmission infrastructure (e.g. turbine and transmission towers), which rely on steel inputs and components.

Need for domestic steelmaking

21. NZ Steel holds a pivotal role in ensuring that our local construction sector has security of supply for high quality, reliable product that can be promptly delivered. For example:

a. There is a considerable difference in the lead times for imported steel (commonly three months or more) and our domestic steel (five weeks or less). Taking the recent Auckland Harbour Bridge accident as an illustration, the plate steel required for the replacement section of the Bridge was able to be supplied by NZ Steel within a day, in contrast with the far longer lead times that would have occurred if imported steel were used.

b. Domestic steel production also provides resilience for New Zealand in the event of natural disasters, international supply chain disruptions, trade wars, or global commodity shortages. Such risks are significant for relatively small and isolated economies like New Zealand's, which are highly dependent on trade.

22. Additionally, steel produced domestically is steel produced in accordance with our strict environmental, employment, social, safety and quality standards. Steel produced by NZ Steel is made for New Zealand conditions, including (and especially) our unique seismic conditions. The reinforcing bar product that our Pacific Steel plant manufactures in Otahuhu is specifically designed to withstand the seismic profile unique to New Zealand and a handful of other countries. By comparison, there is limited visibility or assurance

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we suggest that the Commission also consider the healthy international nature of the scrap steel market.

15 For information on the recyclability of steel see the World Steel Association webpage here.

16 Prefab NZ, 'How to Prefab: A series of New Zealand offsite construction case studies', February 2019, available here.

17 See Prefab NZ, 'My Whare', April 2020, (webpage here) which discusses the merits of steel as a prefabrication material suited to 'tiny homes'. See also ColourSteel case studies available here, which illustrate the speed of prefabricated steel construction as well as the merits with respect to insulation.

18 NZ Steel product is currently being used in major renewable energy generation and transmission projects throughout Aotearoa – we expect this trend to continue due to increased renewable generation requirements.

as to the environmental, social, employment or safety conditions in which most imported steel is produced.

23. Should New Zealand lose its only domestic steelmaker, not only would it make construction sectors reliant on imported steel products but it would also effectively be forgoing the multiple other contributions that NZ Steel makes to the lives and wellbeing of New Zealanders. Specifically:

    a. NZ Steel makes a substantial contribution to the New Zealand economy, contributing $600 million per annum, and the balance of trade would be worse by approximately $2 billion per annum under a full steel import model.

    b. NZ Steel is also a significant employer in South Auckland, with more than 1,270 people employed directly in high-skilled, well-paid jobs. In addition, NZ Steel's operations result in the indirect employment of some 2,500 people.

    c. NZ Steel is a significant contributor to higher living standards[19] and skills training for New Zealanders because of its broad contributions through manufacturing and employment. As an example, currently, 40 plus young Kiwis are in our apprentice and graduate programmes – with thousands participating in such programmes since our inception in the 1960s.

    d. New Zealand also benefits from the skills, knowledge and industry know-how of the steelmaking industry. Our staff, together with scale and connections that come with being a member of an international corporate group means that NZ Steel provides absorptive capacity to New Zealand. Absorptive capacity plays an essential role in supporting innovation and productivity.

Technological advancements for decarbonising steelmaking

24. NZ Steel recognises that the long-term future of iron and steelmaking will need to be centred around breakthrough technologies - once proven and scalable.

25. Exciting work is being undertaken around the globe to explore breakthrough 'green steel' ironmaking technologies – including using hydrogen. These technologies are currently in early stages of technology readiness with significant advances expected to occur over the next decade. For success, such initiatives will need international collaboration across the industry value chain, supportive public policy, capital and affordable, renewable and reliable energy.

26. While no one can see into the future and anticipate timing for technology development, we consider the Commission's scenarios in relation to zero emissions steel technology deployment in 2040 are reasonable. [20] Figure 1 below provides an outline of BlueScope's anticipated technology and capital horizons for the deployment of these technologies.[21] Importantly, the timeframes outlined in Figure 1 are generally consistent with the timeframes outlined in the McKinsey paper cited in the Commission's evidence packs.[22] Both suggest that the large scale zero carbon steel production could be economic and deployed beyond 2035.

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[19] The average wage for NZ Steel employees is approximately $125,000 p.a.

[20] Draft Report, Evidence Report Chapter 8: What our future could look like, page 37.

[21] Details taken from BlueScope's 2021 Half Year Directors' and Financial Report, page 9.

[22] Draft Report, Evidence Report Chapter 4a: Reducing emissions - opportunities and challenges across sectors, Heat, industry and power, page 15.

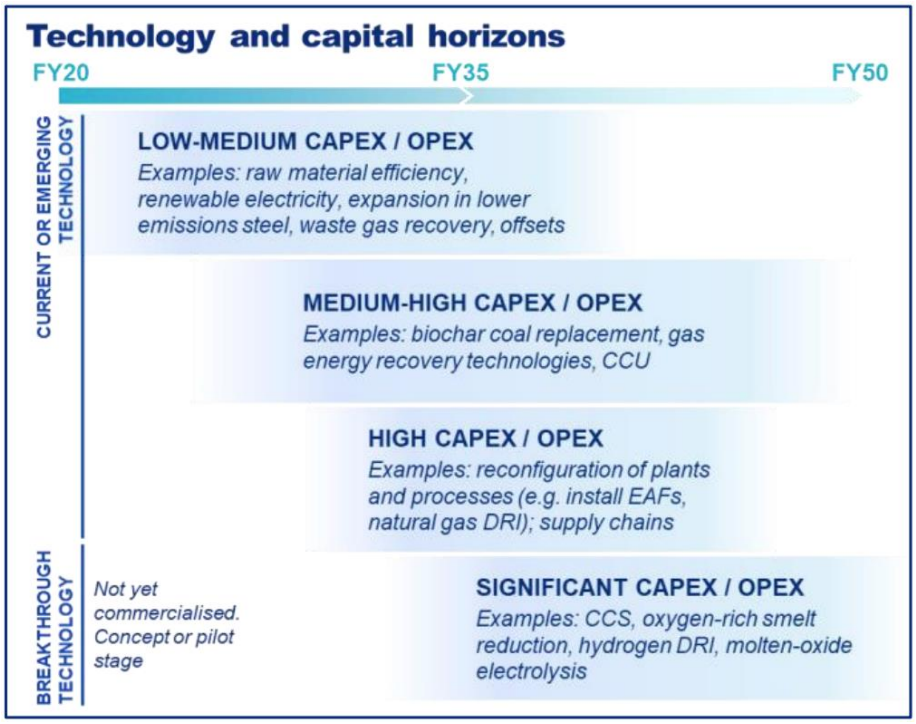

Figure 1 – BlueScope 2021 Half Year Financial Report - Technology and capital horizons

27. However, it is also important to note that the steel sector is not waiting for zero emissions technology to achieve emissions reductions beyond the steelmaking process. In the shorter term, the steel sector will need to rely on technology performance improvements within conventional routes, increased use of renewable energy and other abatement measures.

28. At a group level, BlueScope is currently considering a diverse portfolio of projects. They include: optimising raw material mixes, capturing and reusing a greater proportion of waste heat and gases, and potentially replacing a proportion of the coal currently used in the process with alternative reductants such as biomass, or hydrogen-containing gas such as coke ovens gas. Increased rates of scrap usage, and greater use of renewable energy to cut indirect emissions, are also being considered.

29. NZ Steel has already invested considerably in efforts to reduce its emissions intensity, and to achieve energy savings. Those actions include:

    a. recycling up to 70,000 tonnes of scrap steel each year in the steel manufacturing process;

    b. investing in a co-generation plant at Glenbrook, which generates more than 60% of total site electricity requirements through reuse of waste heat and off-gases; and

    c. investing in energy efficiency measures and process optimisation (including coal usage reduction initiatives), with particular recent focus on ironmaking and natural gas utilisation.

30. In light of these efforts, the remaining ability to make material emissions savings in the current iron and steelmaking processes at Glenbrook over the first three budget periods is constrained. While opportunities to modernise plant may present themselves, they are highly dependent on investment certainty based on a number of external factors including energy prices, competition with imported steel and the international steel price.

Consequently, we support the Commission's base modelling assumption in the current policy reference case which provides for a stable level of emissions from the Glenbrook steel mill over the relevant period.[23]

Support for the Commission's pathway for steel and hard to abate industries

31. NZ Steel appreciates and echoes the Commission's recognition of the challenges faced by the steel sector with respect to achieving emissions reductions.[24] As the Commission recognises, the commercial production of steel from iron sand necessarily requires coal as part of the chemical process and therefore necessarily involves greenhouse gas emissions.[25] We commend the Commission for acknowledging the unique nature of our steelmaking process and the need to consider that process when analysing international technological developments.[26]

32. NZ Steel **supports** the Commission's:

    a. recommendation to develop a 'long-term strategy' for the future of hard to abate sectors including steelmaking, alongside the national energy strategy, future Economic Plans and strategies for an equitable transition.[27] NZ Steel considers this to be a **critical recommendation**, which needs to be developed in the manner set out below.

    b. Budget Recommendations 1 and 2, insofar as they anticipate and provide for continued emissions from steelmaking as a hard to abate sector;

    c. Necessary Action 8, particularly its focus on supporting innovation in hard to abate industries together with the development of long-term strategies and bespoke solutions;[28] and

    d. recognition that forestry can play a key role in offsetting emissions associated with hard to abate sectors,[29] including as an interim measure to enable development and deployment of zero emissions technologies.

33. In particular the Commission's budgetary provision for the continued operation of hard to abate sectors in the first three budgets provides crucial time for the advancement and deployment of emissions reduction technologies. This provision of time to enable transitions to low or no emissions technologies is not only in keeping with the imperative of achieving a just transition but is also in keeping with the Commission's Principles 3, 4 and 5. Specifically, this approach ensures preservation of the future window in which zero emissions steelmaking can be realised, while also avoiding irreversible closures, major job losses, construction sector impacts and reliance on imported products.

34. We also strongly support the Commission's proposed 'long-term strategy' approach for hard to abate sectors. Development of such a strategy should enable better exchange of

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[23] Draft Report, Evidence Report Chapter 7: Where are we currently heading?, page 23.

[24] Draft Report, page 115.

[25] Draft Report, page 115.

[26] Draft Report, Evidence Report Chapter 4a: Reducing emissions - opportunities and challenges across sectors, pages 5 and 14, which refers to the potential challenging applying international pilot hydrogen steel projects to the steelmaking process at Glenbrook.

[27] Draft Report, Necessary Action 8, Recommendation (a), page 116.

[28] Draft Report, page 116.

[29] Draft Report, page 115.

information regarding forecasts of emissions and emission reduction challenges and avoid basing policy decisions on incorrect assumptions.[30]

35. To capitalise on the potential benefits of strategic planning, it will be important for this strategic approach to not take a 'one size fits all' approach. Given the opportunities and barriers to decarbonisation differ substantially between industrial processes,[31] sector-specific strategies will need to be developed alongside the overarching long-term strategy.

36. A sector-specific strategy approach will enable the consideration of more accurate modelling of sector-specific opportunities for, and barriers to, emission reductions. It will ensure policy settings can be tailored to sector-specific factors influenced by emissions budgets and both sectoral and wider economy and societal impacts. A long-term strategy should also enable the identification of interdependencies between hard to abate sectors and support a policy approach in relation to one sector that will not have unintended consequences for other sectors. By way of example, steelmaking has an interdependency with burnt lime and a strategy that did not provide for a future for domestic burnt lime producers would impact the steel supply chain.

37. We see these strategy documents as an important opportunity for Government to work with industrial operators to develop long-term sectoral 'road maps' for decarbonisation. These strategy documents could be akin to a Government Policy Statement, which ensures there is a clear long-term policy direction and enables different arms of the Government to work coherently and consistently towards a specific decarbonisation pathway.

38. We further support the Commission's approach as an opportunity for more streamlined policy development and engagement in hard to abate sectors. The development of strategies provides an important opportunity to avoid overlapping and duplicating consultation programmes which represent a major drain on the finite resources of businesses such as ours. Those resources would be better spent working with Government on the forward-looking development of a decarbonisation road map and then implementing it, rather than assessing, and submitting on, a myriad of potentially inconsistent policy consultation documents.

39. We further expect that with a long-term strategy in place, there is a greater likelihood of 'joined up' thinking from Government departments and the breaking down of siloed policy making. With a strategy in place, policies affecting hard to abate sectors ought to be consistent, strategic and able to be anticipated. This would provide important investment certainty that businesses like ours need to investigate emerging emissions reduction technologies and/or emissions offsets well in advance of their deployment.

40. To support these opportunities we suggest that the Commission's advice should include a recommendation that the hard to abate sector strategies become the cornerstone document for climate policy affecting the relevant sector. To support consistency, all central and local Government actors should be obliged to be consistent with or, as a

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[30] For example, we note that the Commission's own Evidence Report proceeds on the incorrect assumption that NZ Steel's recent restructuring resulted in a 10% reduction in emissions and that this reduction will be sustained until 2050 (Chapter 7: Where are we currently heading?, page 23). Both these assumptions are incorrect. See paragraph 44 below for further discussion on these incorrect assumptions.

[31] For example, a decarbonisation strategy for steelmaking will be quite different to a strategy for the cement industry given the two sectors involve different chemical processes and have very different decarbonisation options.

minimum, have regard to the strategy when formulating climate (or climate adjacent) policy affecting the relevant sector.

41. Consequently, in light of the above we suggest that the Commission amend the recommendation under Necessary Action 8 as follows: (proposed additional text shown in underline and proposed deletions shown in ~~strikethough~~)

"Necessary Action 8 Support innovation to reduce emissions from industrial processes

We recommend that, in the first budget period the Government take steps to support innovation in hard-to-abate industrial processes, including by:

a. *Developing an overarching long-term strategy for the future of hard-to-abate industrial processes, which is supported by sector-specific strategies for those processes with unique or specific factors influencing their decarbonisation opportunities ~~industries~~ (including iron and steel making, cement and lime production and petrochemical production). The overarching long term strategy should identify any interdependencies and/or conflicts between the sector-specific strategies and seek to resolve such issues. These strategies ~~This strategy~~ should be developed:*

   i. *in consultation with the relevant industrial operators and take into account the criticality of the end product, supply chain impacts, exposure to international trade and any risks of emissions leakage;*

   ii. *alongside the national energy strategy, future Economic Plans and strategies for an equitable transition (see time-critical necessary actions 1 and 3).*

b. *Based on the outcome of the strategy, investigating whether bespoke solutions requiring research and development specific to Aotearoa will be required.*

c. *In keeping with Necessary Action 15, the overarching strategy and sector-specific strategies should be mandatory considerations for any Government decisions relating to policies affecting such processes/sectors."*

THE COMMISSION'S PATHWAY

Modelling and assumptions

42. We have had the opportunity to read the submission of the Major Electricity Users Group (*MEUG*) and the supporting analysis prepared by the New Zealand Institute of Economic Research Inc. Both documents raise important concerns with respect to:

   a. inconsistencies between the pathway, scenarios and economic impact modelling;

   b. lack of certainty over emissions pricing assumptions (i.e. the net global carbon price); and

   c. the logic of electricity pricing modelling and forecasting.

43. Given the Commission's pathway represents a blueprint for the New Zealand economy for the next 14 years, it is important that its analysis is consistent, reasoned and provides the New Zealand public and New Zealand businesses with confidence. Consequently, we suggest that the Commission closely consider and publish a detailed response to the concerns raised by MEUG.

44. Specifically with respect to the modelling related to the steel sector, an incorrect assumption has been included in the Commission's base case and (potentially) further modelling. The Current Policy Reference Case emissions from iron and steel production provide for a reduction in emissions from 1.8Mt CO_2e in 2018 to 1.7Mt CO_2e in each of 2030, 2040 and 2050. The explanation for this forecast reduction in emissions is noted to be based on an assumption of a 10% reduction in emissions resulting from last year's corporate restructure.[32]

45. That assumption is however incorrect. Staffing levels have no direct relationship to overall emissions.

46. Consequently, NZ Steel suggests that**:**

    a. the Commission's Current Policy Reference Case is amended to reflect continuation of 2018 emission volumes until 2050 without any assumed reduction related to the restructure; and

    b. if any other modelling also relied on this incorrect assumption, those assumptions should similarly be corrected.

Industry and heat

47. NZ Steel supports the Commission's goal of electrification of the economy and the increase in uptake of low emissions energy sources. We also support the Commission's focus on the decarbonisation of the energy system as a whole.

48. The 2035 60% renewable energy target included in Time-critical Necessary Action 3 is commendable. However, we consider that it must be supported by a breakdown that sets out which sectors are anticipated to provide what level of reductions to achieve that target. Importantly, this must provide for the proportion of the remaining 40% that is anticipated to be left available to each sector. Our concern is that the 60% target relies heavily on transport electrification and there is very little certainty that the steep transition pathway is practically achievable. By mapping out specific sector pathways within the target, the target would be more meaningful and ensure accountability within the sectors that are anticipated to best be able to transition at least cost.

49. We also suggest that the Commission's recommendations with respect to the energy sector need to address its regulation. We consider the focus on targets for the wider energy system, should also be reflected in greater coordination and accountability between energy regulators.

50. We suggest the Commission also consider the merits of recommending that energy regulators specifically consider energy pricing as it relates to and influences emissions abatement. This would improve the ability of market participants to manage and plan around pricing. More specifically, the Climate Change Commission and/or regulators could determine a target energy price or a price window to achieve emission reductions in a budget period as well as to achieve the 2050 target and be empowered with market tools to influence energy prices toward that target or window. Such tools could include, for example increasing the liquidity of the electricity hedge market or electricity market controls. The benefits of pricing certainty are numerous. Many of the Commission's outcomes and targets can only be achieved with certainty and stability in energy pricing.

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[32] Draft Report, Evidence Report Chapter 7: Where are we currently heading? page 23. See also page 81 where the Commission provides the key assumptions in the current policy reference case being that there is a 10% reduction in production in 2020 relative to 2016-2019 average and constant production beyond this point.

From a business perspective, investment certainty necessary to invest in emission reduction technologies would be dramatically improved with increased wholesale pricing certainty. Consequently, we suggest that the Commission consider regulatory reform to provide energy price targeting and regulatory reform to provide tools to support such targets being achieved.

Electricity

51. For electrification on the scale anticipated by the Commission to be achievable, there needs to be increased focus on abundant, reliable, low cost and firmed renewable electricity. This is particularly relevant to the future transition of steelmaking, if a commercial green hydrogen fuel source is to be a realistic possibility.

52. The Commission's modelling places a considerable burden on the consenting of new renewable generation (principally wind and solar) in the next 5 – 10 years. However, current policy settings do not sufficiently support or enable the necessary scale of increased renewable generation. The reform of the Resource Management Act 1991 (*RMA*) provides a useful example of reform inconsistency. Based on the most recent commentary, the proposed Natural and Built Environments Act (*NBA*) and the Spatial Planning Act fail to provide a preferred, simple and low cost renewable generation resource consenting pathway. We suggest that in relation to 'Necessary Action 15 - Integrate Government policy making across climate change and other domains' the Commission include a recommendation that the RMA reform process particularly considers the need for the planning system to deliver on the Commission's electrification pathway.

53. Finally, we support the Commission's position with respect to renewable electricity generation targets. We agree that the Government's 100% renewable target by 2030 is not necessary to achieve the 2050 targets. Moreover, it is likely to have a counterproductive impact as the cost of achieving 100% renewable generation would undoubtedly add to the costs of electricity and undermine the economic incentive to electrify.

Gas

54. The Commission's proposals with respect to gas are likely to have material implications for users such as NZ Steel who rely on gas as part of their industrial process. The proposal to prevent new gas heating systems in buildings after 2025 will mean that gas distribution and transmission will have a static or shrinking business model. While the Commission has publicly clarified that the policy is not intended to impact existing users this is incorrect on two fronts. Firstly, Necessary Action 9 specifically includes as a recommendation that 'replacement heating systems' will need to transition away from gas from no later than 2025. Moreover, given the operation of transmission/distribution assets is largely fixed cost, the impact of a shrinking model is likely to result in substantial costs increases being shared by a smaller pool of existing and ongoing operators. Consequently, existing users will be impacted both in terms of gas pricing and at the point of replacement of existing heating systems.

55. We suggest that the Commission's analysis should include specific consideration of the cost implications of both of these impacts on existing users and ensure that this is reflected in the modelling and cost forecasting. Moreover the losses resulting from stranded gas transmission, distribution and boiler assets should also be factored into the analysis.

56. While the Commission has recognised the resilience benefit that diversifying into new fuels such as biofuels and hydrogen that boost energy security presents, the Draft Report does not include any concrete recommendations for action to drive the development of such fuels. These fuels have the potential to not only boost resilience but also minimise

business interruption and avoid or minimise stranded asset risk. We consider that such considerations are an important part of a just transition for existing gas users.

Coal

57. We accept the Commission's recommendation that process heat emissions are reduced through prohibitions on new coal boilers and that existing activities transition away from coal where possible. However, steelmaking from iron sand cannot, on present technology, transition away from coal. In what is perhaps unique to steelmaking, coal is not primarily used as a source of heat. Rather, and as recognised by the Commission coal is a necessary ingredient in the production of steel (it acts as a reductant that removes oxygen from iron) and there is currently no commercially viable substitute to produce virgin steel without coal/carbon.[33]

58. Consequently, NZ Steel's continued operation, which the Commission accepts and models, will require coal supplies. We query whether the job losses in the coal sector modelled by the Commission are all necessary if domestic coal mining can be continued, albeit limited to ongoing coal supplies for sectors that would otherwise rely on imported coal.

Forestry

59. NZ Steel supports the Commission's approach of enabling forestry activities to be utilised to offset emissions from hard to abate sectors such as steel.[34] We support the 'right tree in the right location' approach and note the findings of the Aotearoa Circle which concluded that the ETS currently unduly favours the planting of exotics species (Pinus radiata in particular) over New Zealand native species.[35] We support changes and the provision for incentives to reduce the feasibility and viability gap between exotics and natives.

60. Importantly, however, tree species preference should not override the least cost abatement driver for emission reductions, including Principle 4 – Avoid unnecessary cost. We consider that the co-benefits of native forests should be pursued but not at the expense of least cost emissions abatement.

Inter-material substitutes - timber and steel

61. The Draft Report makes a number of references to the ability for timber to displace emissions intensive materials including steel in buildings.[36] NZ Steel accepts that there is a place for the use of timber in construction. However, in keeping with the Commission's Principle 3 and 4 ('create options' and 'avoid unnecessary cost') it is important that the role of timber not be overstated or timber products unreasonably preferred in inappropriate applications.

62. NZ Steel considers that it is important that building material selection should be driven by engineers, designers and specifiers and should be chosen on a project-by-project basis. Choosing "winners" from a range of building materials based on a narrow application of carbon intensity would likely lead to a whole range of unintended consequences, including:

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[33] Notwithstanding this current technical impasse, NZ Steel is actively supporting and collaborating with tertiary institutions who are investigating alternative hydrogen-based iron reductant processes.

[34] Draft Report, at section 1.5.

[35] The Aotearoa Circle, 'Native Forests: Resetting the balance', August 2020, page 17.

[36] Draft Report, at section 3.8.7, page 68. Draft Report, Evidence Report Chapter 4a: Reducing emissions – opportunities and challenges across sectors Heat, industry and power, page 12.

a. Inappropriate overuse of materials driven by emissions calculations without consideration for other impacts including safety, environmental, social and economic;

b. Greater build time and build cost (the minimisation of both being the stated objective of several New Zealand governments now);

c. The unique advantages of specific products including steel could be undermined, ignored or jeopardised;

d. Over-reliance on inappropriate building materials may create issues in the built environment with respect to building longevity, safety, performance or strength (e.g. leaky buildings, and fire risk[37]). All the impacts of incentivising specific products or practices need to be very carefully considered to ensure New Zealand avoids catastrophic safety risks in future. The Grenfell Tower fire disaster in London is a tragic example of how a combustible material can exacerbate the spread of fire in a building and result in multiple preventable fatalities;

e. Increased barriers to achieving urban intensification goals[38] resulting in further urban sprawl and impacts on transport emissions; and

f. Fixed policies that could stifle innovation through strict methodologies that do not take into account new technologies or processes.

63. We note our serious concerns with the Commission's suggestion that the embodied carbon for structural steel columns and beams is 2.85 kg CO_2e per kg compared to -1kg CO_2e per kg for glued laminated or cross laminated timber from sustainably managed forests.[39] Put simply, this is not an "apples for apples comparison" as neither data point takes into account the whole-of-life-cycle profile for each product type. This serves as a cautionary tale around trying to reduce complexity inherent in product types and supply chains – carbon public policy needs to cater for such nuance.

Offshore mitigation

64. NZ Steel has always supported the ability to use credible robust offshore mitigation as a method to offset domestic emissions, where such offshore mitigation is effective and lower cost than domestic emissions reductions. In light of s 5Z(2) of the Climate Change Response Act 2002's limitation on the ability to use offshore mitigation to meet budgets, those options are now much more constrained.

65. However, NZ Steel supports the Commission's acceptance of international mitigation as a potentially useful buffer against "Force Majeure" events that would impact the ability to reach budgets. NZ Steel supports this option and agrees that it is consistent with the principle of least cost abatement, which is logical to have as a cornerstone to the wider emissions strategy.

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[37] In buildings exposed to fire, steel is especially important for columns supporting vertical load, internal connections supporting the flooring, and flooring systems/ceilings. The latter provides the separation needed to minimise the spread of fire across the floor of origin. These elements provide a greater chance of structures being able to sustain a fully developed fire attack without collapse.

[38] See for example the urban intensification goals in the National Policy Statement on Urban Development 2020, which requires plans to enable vertical builds of no less than six storeys in many urban areas.

[39] Draft Report, Evidence Report Chapter 4a: Reducing emissions – opportunities and challenges across sectors Heat, industry and power, page 27.

THE EMISSIONS TRADING SCHEME

ETS Settings recommendations

66. NZ Steel notes the Commission's recommendation to immediately increase the ETS auction reserve and cost containment reserve trigger price. We strongly oppose abrupt market actions, particularly in the context of regulations enabling a confidential auction reserve having just been passed. We suggest that changes to ETS price controls either be well signalled, gradual or in response to a demand for the change. None of those three preconditions are currently triggered.

67. Moreover, there needs to be joined up thinking about the impact of these price controls on the ability for hard to abate sectors to continue operating. The Commission's increased price controls, coupled with the default phase down of industrial allocation which has commenced,[40] are likely impact the viability of hard to abate sectors.

68. As a minimum, the ETS price control changes should be contemplated only in conjunction with systems-wide assessments of impact and the provision for responses that manage the effects of the change. Consequently, we suggest that the ETS price signal changes are expressly considered during, and only implemented together with:

    a. the first Equitable Transitions Strategy;

    b. the first principles allocation review (see paragraphs 71 – 75 below); and

    c. the hard to abate sector strategies (discussed above at 31 and 32).

69. The Equitable Transitions Strategy is currently recommended to be drafted by the end of 2023 but we suggest that this timeframe be brought forward to avoid adverse market impacts and to support a meaningful just transition.

70. We also suggest that the just transition driver in the Equitable Transitions Strategy could be well supported by funding programmes from the recycling of ETS auction revenues. We deem this to be the fair and balanced approach and reflects the policy settings of other credible jurisdictions, like the EU.

Future allocation review

71. The Climate Change Commission recommends that during the first budget period the Government makes progress on undertaking a first principles review of industrial allocation policy.[41] NZ Steel is looking forward to working with the Government and officials in this review, as well as providing evidence of the competitiveness implications for domestic steel manufacturing and carbon leakage risks.

72. The review has potentially wide ranging impacts on domestic steelmaking. It is important to recognise that allocations were a deliberate mechanism to provide a level playing field between domestic businesses and overseas manufacturers who did not face a cost of carbon in their jurisdictions. The justifications for allocation remain in place – there remains no commercial alternative to produce low or no emissions steel and there is no level playing field with respect to international carbon costs or regulation.

73. If this review is to consider alternative mechanisms to allocations, it is crucial that these mechanisms complement the current allocation regime – they should **not** be a substitute,

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[40] See section 83(2A) Climate Change Response Act 2002.

[41] Draft Report, page 134.

but rather an enhancement. We note the EU has recently been very active in this area and recently reaffirmed the importance of allocation to hard to abate industries irrespective of whether or not alternative mechanisms (in the EU's case, a carbon border adjustment mechanism) prove to be viable.[42] We encourage the Commission to recommend that the Government fully investigate alternatives such as consumption taxes and/or a carbon border adjustment mechanism, but at the same time understand their limitations and how they should correctly interface with the current allocations regime in New Zealand.

74. Ensuring that hard to abate sectors who receive free allocation have a clear and stable view of future allocations is essential if we are to be able to continue operating until such time as technology is available to support low-emissions investment.

75. Until an effective alternative is operational, ETS allocation will continue to have a pivotal role in avoiding emissions leakage and ensuring New Zealand businesses are able to compete on a level playing field with imported products.

As always, we would be happy to discuss any aspect of this submission with the Commission.

Yours sincerely,

Gretta Stephens

Chief Executive Climate Change

Chief Executive New Zealand and Pacific Islands

[42] Non-binding vote in the European Parliament (9 March 2021).

APPENDIX A

RESPONSES TO COMMISSION QUESTIONS

Commission Question (selected questions answered)		NZ Steel Response
1.	Do you support the principles we have used to guide our analysis? Is there anything we should change, and why?	NZ Steel generally supports the Commission's principles. We suggest some minor changes to the principles below and point out examples where it appears that the Commission's recommendations are at odds with these principles. • **Principle 2- Focus on decarbonising the economy**: The focus on decarbonising the economy is appropriate but it is too simplistic. We suggest that the Principle should be "Focus on least cost emissions abatement". While absolute emission reductions are important, the focus of the 2050 targets is net emissions. The net emissions approach is essential to ensure that the transition is able to be conducted in accordance with Principle 4 (Avoid unnecessary cost). The principle also needs to take into account emissions leakage risk on a proactive basis, to avoid actions domestically having no benefit to the global fight against climate change. We also suggest removing the reference to "Relying heavily on forestry before 2050 is likely to make maintaining net zero long-lived greenhouse gas emissions after 2050 challenging". In fact, short-term forestry offsetting can provide important time to enable investment in better long term solutions, rather than locking in poorer technology options (e.g. PHEVs instead of EVs). • **Principle 3 - Create options**: NZ Steel strongly supports this principle and the need to keep options open to enable investment in technologies at the time that windows for those investments open. Those windows need to be identified at a detailed – sector-by-sector – level rather than generic assumptions of carbon pricing triggering technology developments. Consequently, NZ Steel suggests the principle be amended to "*Maintain and create options for realistic transition pathways*".

		• **Principle 4 - Avoid unnecessary cost:** NZ Steel strongly supports this principle and as noted above suggests that the least cost abatement should also feature in Principle 2. However, we query whether this Principle is consistent with the Commission's suggested restrictions on exotic forestry. Any restrictions on lower-cost exotic forestry risk driving emissions pricing up rapidly and potentially at a rate that is out of step with transition options available to emitters. The impact will be unnecessary costs and should be avoided as inconsistent with Principle 4. • **Principle 5: Transition in an equitable and inclusive way:** NZ Steel strongly supports this principle, particularly the Commission's recommendation that "The climate transition should be well planned and signalled in advance to give communities, businesses and individuals time to innovate and adapt, build new markets and retrain". We note that some of the Commission's recommendations appear to be inconsistent with this principle. For example, the uncertain restrictions on exotic forestry, the recommended immediate changes to ETS price signals, and the uncertain outcomes of the 'first principles' review of allocation, all serve to introduce uncertainty and undermine the ability to plan for the transition. • **Principle 6 - Increase resilience to climate impacts:** NZ Steel fully supports resilience but notes that resilience comes from diversification in Aotearoa's options for the transition. Much of the Commission's pathway is heavily reliant on low cost, secure and abundant renewable electricity. Other options (including alternatives like biofuel blends and hydrogen, and dry year peaking from gas generation) need to be built into the pathway to provide for true resilience. • **Principle 7 - Leverage co-benefits:** NZ Steel supports leveraging co-benefits of emission reduction options. However, those options must be assessed economically and rationally, and any co-benefits need to be robustly assessed. Unless robustly assessed, co-benefits should be used to support otherwise economically irrational policies.

4.	Do you support budget recommendation 4? Is there anything we should change, and why?	NZ Steel has always supported the ability to use credible robust offshore mitigation as a method to offset domestic emissions, where such offshore mitigation is effective and lower cost than domestic emissions reductions. In light of s 5Z(2) of the Climate Change Response Act 2002's limitation on the ability to use offshore mitigation to meet budgets those options are now much more constrained. NZ Steel supports the Commission's acceptance of international mitigation as a potentially useful buffer against "Force Majeure" events that would impact the ability to reach budgets. NZ Steel supports this option and agrees that it is consistent with the principle of least cost abatement, which is logical to have as a cornerstone to the wider emissions strategy.
8.	Do you support enabling recommendation 4? Is there anything we should change, and why?	NZ Steel supports **Enabling Recommendation 4**. It is essential that central and local government work together. We query whether the reporting date of 30 June 2022 appropriately aligns with the ongoing RMA reform process, particularly the slower track reform provided in the form of the Spatial Planning Act, which is intended to provide for much of this coordination.
10.	Do you support our approach to focus on decarbonising sources of long-lived gas emissions where possible? Is there anything we should change?	In the first instance the focus should be on achieving net zero emissions. As noted above, while absolute emission reductions are important, the focus of the 2050 targets is net emissions. The net emissions approach is essential to ensure that the transition is able to be conducted while avoiding unnecessary cost (Principle 4). In decarbonising domestic sources of long lived gases we also needs to take into account emissions leakage risk, to avoid domestic action being undermined by equal or increased global emissions. The Commission's focus on decarbonising sources of long-lived gas emissions where possible is appropriate provided it does not incur unnecessary economic harm to Aotearoa and does not reduce Aotearoa's future decarbonisation options.
11.	Do you support our approach to focus on growing new native forests to create a long-lived source of carbon removals? Is there anything we should change, and why?	NZ Steel supports the Commission's approach of enabling forestry activities to be utilised to offset emissions from hard to abate sectors such as steel. We support the 'right tree in the right location' approach and note the findings of the Aotearoa Circle which concluded that the ETS currently unduly favours the planting of exotics

		species (Pinus radiata in particular) over New Zealand native species. We support changes and the provision for incentives to reduce the feasibility and viability gap between exotics and natives. Importantly, however, tree species preference should not override the least cost abatement driver for emission reductions, including Principle 4 – Avoid unnecessary cost. We consider that the co-benefits of native forests should be pursued but not at the expense of least cost emissions abatement. NZ Steel considers that native forest offsets should be supported but that the restrictions on exotic forestry is an inappropriate way to provide that support given it will only serve to increase the overall cost of emissions abatement.
12.	Do you support the overall path that we have proposed to meet the first three budgets? Is there anything we should change, and why?	NZ Steel supports the overall path proposed by the Commission, particularly: • the recognition of the ongoing need for hard to abate sectors and provision for their ongoing emissions; • the enabling of forestry offsets to be utilised for hard to abate sectors such as steel. However, NZ Steel also notes that the pathway is highly dependent on a number of assumptions proving correct. Little, if any, sensitivity analysis has been presented in relation to each of those assumptions and therefore represents a frailty of the pathway analysis. If any of the assumptions are not correct the pathway may miss its target. Given this, NZ Steel suggests that greater flexibility is required in the first three budgets, with the ability to tighten budgets reserved for key milestones when delivery risk is shown to be reduced / mitigated and assumptions have been shown to be correct. For example, exotic forestry offsetting should not be restricted until such time as EV uptake is trending towards the levels assumed by the Commission.
13.	Do you support the package of recommendations and actions we have proposed to increase the likelihood of an equitable, inclusive and well-planned climate transition? Is there anything we should change, and why?	NZ Steel supports the Commission's **Necessary Action 1**. The measures are an important tool to ensure an equitable, inclusive and well-planned climate transition. However it is unclear whether the timing of those actions align with the timing of the Commission's own recommendations. For example the uncertain restrictions on exotic forestry, the recommended immediate changes to ETS price signals, and the uncertain outcomes of the 'first principles' review of allocation all serve to introduce

		uncertainty and undermine the ability to plan for the transition and will have unequitable impacts on specific sectors and parts of New Zealand. As a minimum we suggest that the ETS price control changes should be contemplated only in conjunction with systems-wide assessments of impact and the provision for responses that manage the effects of the change. We suggest that the ETS price signal changes are expressly considered during, and only implemented together with, the first Equitable Transitions Strategy, the first principles allocation review and the hard to abate sector strategies. We further suggest that the Equitable Transitions Strategy, currently recommended to be drafted by the end of 2023, is brought forward to avoid adverse market impacts and to support a meaningful just transition.
15.	Do you support the package of recommendations and actions for the heat, industry and power sectors? Is there anything we should change, and why?	Please refer to body of our submission which includes particular reference to issues related to the heat, industry and power sectors. With respect to **Time-critical Necessary Action 3**, NZ Steel considers the 2035 60% renewable energy target to be commendable. However, we consider that it must be supported by a breakdown that sets out which sectors are anticipated to provide what level of reductions to achieve that target. Importantly this must provide for the proportion of the remaining 40% that is anticipated to be left available to each sector. Our concern is that the 60% target relies heavily on transport electrification and there is very little certainty that the steep transition pathway is practically achievable. By mapping out specific sector pathways within the target, the target would be more meaningful and ensure accountability within the sectors that are anticipated to best be able to transition at least cost. With respect to **Necessary Action 5**, we strongly support the recommended national energy strategy, future economic plans and strategies for an equitable transition. However we also seek a new recommendation within Necessary Action 5 that the Government consider regulatory reform to improve coordination and accountability between energy regulators.

		With respect to **Necessary Action 6**, we support the development of a plan for the bioeconomy and assessment of the place of hydrogen in the energy strategy. We suggest bringing the hydrogen strategy forward and ensuring it is assessed against more advanced economies and strategies related to hydrogen – in particular Australia. With respect to **Necessary Action 8** NZ Steel suggests that the Commission amend the recommendation under Necessary Action 8 as follows: (proposed additional text shown in underline and proposed deletions shown in ~~strikethough~~) *"Necessary Action 8 Support innovation to reduce emissions from industrial processes* *We recommend that, in the first budget period the Government take steps to support innovation in hard-to-abate industrial processes, including by:* *a. Developing an overarching long-term strategy for the future of hard-to-abate industrial processes, which is supported by sector-specific strategies for those processes with unique or specific factors influencing their decarbonisation opportunities ~~industries~~ (including iron and steelmaking, cement and lime production and petrochemical production). The overarching long term strategy should identify any interdependencies and/or conflicts between the sector-specific strategies and seek to resolve such issues. These strategies ~~This strategy~~ should be developed:* *i. in consultation with the relevant industrial operators and take into account the criticality of the end product, supply chain impacts, exposure to international trade and any risks of emissions leakage;* *ii. alongside the national energy strategy, future Economic Plans and strategies for an equitable transition (see time-critical necessary actions 1 and 3).*

		b. Based on the outcome of the strategy, investigating whether bespoke solutions requiring research and development specific to Aotearoa will be required. *c. <u>In keeping with Necessary Action 15, the overarching strategy</u> <u>and sector-specific strategies should be mandatory considerations for any Government decisions relating to policies affecting such processes/sectors</u>."* With respect to **Necessary Action 9,** NZ Steel suggest more robust assessment of the implications on existing gas users is necessary, particularly those who are unable to transition away from gas usage. This assessment must include both impacts of replacement heating systems and increased costs of a smaller number of ongoing gas users bearing the burden of the cost of maintaining the gas transmission and distribution network.
17.	Do you support the package of recommendations and actions for the forestry sector? Is there anything we should change, and why?	As noted above, NZ Steel is strongly of the view that tree species preference should not override the least cost abatement driver for emission reductions. We consider that the co-benefits of native forests should be pursued but not at the expense of least cost emissions abatement.
19.	Do you support the package of recommendations and actions to create a multisector strategy? Is there anything we should change, and why?	This question is extremely broad and covers a wide range of matters which are addressed in the body of NZ Steel's submission. See in particular response to question 15 above. With respect to **Time Critical Necessary Action 6** we note that: • The action refers to Commission's analysis suggesting values of at least $140 per tonne by 2030 and $250 by 2050 in real prices. These figures require greater analysis. We support the detailed submissions of the Major Electricity Users Group which raises concerns with respect to these figures. With respect to **Necessary Action 19** we note that: • We strongly oppose abrupt market actions, particularly in the context of regulations enabling a confidential auction reserve having just been passed.

		We suggest that changes to ETS either be well signalled, gradual or in response to a demand for the change. The ETS change policy options presented in Evidence Chapter 17 (page 54) are at an extremely early stage of development and it would be premature to advance these to implementation. • The Commission's proposed increases in price controls, coupled with the default phase down of industrial allocation, are likely impact the viability of hard to abate sectors. • We suggest that the ETS changes are expressly considered during, and only implemented together with, the first Equitable Transitions Strategy, the first principles allocation review and the hard to abate sector strategies. • NZ Steel is looking forward to working with the Government and officials in relation to the first principles review of industrial allocation policy. We anticipate allocation is essential to guard against the competitiveness implications for domestic steel manufacturing and carbon leakage risks. It is important to recognise that allocations were a deliberate mechanism to provide a level playing field between domestic businesses and overseas manufacturers who did not face a cost of carbon in their jurisdictions. The justifications for allocation remain in place – there remains no commercial alternative to produce low or no emissions steel and there is no level playing field with respect to international carbon costs or regulation. • The Commission has specifically referred to exploring alternative policy instruments that could address the risk of emissions leakage. We consider that it is crucial that these instruments complement the current allocation regime – they should not be a substitute, but rather an enhancement. We encourage the Commission to recommend that the Government fully investigate alternatives like consumption taxes and/or a carbon border adjustment mechanism, but at the same time understand their limitations and how they should correctly interface with the current allocations regime

		in New Zealand. The Terms of Reference for this review should be developed with the sectors affected.
21.	Do you support our assessment of the country's NDC? Do you support our NDC recommendation?	Increased information regarding the Government's progress towards securing offshore mitigation trading under Article 6 of the Paris Agreement is necessary. Increased ambition that is reliant on offshore mitigation should be predicated on robust assessment of the cost and robustness of that offshore mitigation.