

**Submission to Climate Change Authority
2024 Issues Paper – “Targets, Pathways and Progress”**

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Submission to CCA 2024 Issues Paper

The Australian Steel Institute (**ASI**) is pleased to make a submission to the Climate Change Authority 2024 Issues Paper, “Targets, Pathways and Progress.”

Introduction

The ASI is our nations peak body representing the entire steel supply chain, from the primary producers through to end users in building and construction, resources, heavy engineering and manufacturing.

Its membership base includes approximately 6,000 individuals that are associated with more than 600 corporate memberships and over 350 individual memberships.

A not-for-profit member based organisation, the ASI's activities extend supporting Australian steel industry jobs and a highly sustainable and prosperous industry, stakeholder advocacy and support, steel excellence, standards and compliance, training, events and publications.

The Australian steel industry

The Australian steel industry consists of three primary steel producers, supported by over 300 steel distribution and processing sites throughout the country and hundreds of manufacturing, fabrication and engineering companies.

Australia produces around 6 million tonnes of steel per annum across five major manufacturing locations. It is important to note the economic and social contribution of the Australian steel industry. It employs over 100,000 people and generates \$29 billion in annual revenue, and is associated with a disproportionately large share of skilled jobs in regional and rural areas.

The economic contribution of the Australian steel industry is very significant. Based on recently completed analysis conducted by BIS Oxford Economics, it is estimated that for every \$1 million invested,

- 5 workers are employed in the steel and closely related industries,
- \$2.8 million output is contributed to the economy, and
- \$1.1 million of value is added to Australian GDP.

The steel industry is a key enabler for the nation's renewable energy transition and associated legislated climate targets. Between now and 2030 it is estimated that at least 400,000 tonnes of extra fabricated steelwork will be required per annum to service over 23 GW of existing renewable energy generation projects across wind, solar, water and transmission infrastructure.

2024 Issues Paper Questions

1. **How should the authority take account of climate science and Australia's international obligations in considering possible emissions reductions targets for 2035?**

When considering any need for a change to current emissions reduction targets for 2035 we urge CCA and the Federal Government to ensure that the climate science results are extremely credible and provide a very high level of certainty in relation to climate risks.

Whilst we do have a critical role to play globally in emissions reduction and compared to many other developed nations have relatively lower GHG emissions, our Federal Government needs to use as much leverage as possible to motivate other developed countries to play their part.

2. **How should the authority weight the goals of ambition and achievability in considering possible emissions reductions targets for 2035?**

When reviewing and setting ambitious stretch goals and targets for our nations emissions reductions it is most important to analyse a range of scenarios and their potential outcomes using both current day technology levels and available resources, balanced with new technology which has a relatively high degree of probability of eventuality. Forecasting technology development against future time scales is highly problematic, and commitments for new targets relying on technology should only be made when there is a credible degree of certainty for their development. Highly credible sources of data should only be used for such important goal setting with highly significant ramifications to industry, the community and economy if the government gets this wrong.

For example, our industries steel manufacturers are currently working diligently on investigating the possible transition from BF-BOF steel making using coal as a reductant for producing iron from iron ore, to using H-DRI (Hydrogen Direct Reduced Iron) with an interim step of Gas-DRI. There are so many uncertainties in this transition that it is too risky and difficult to stipulate a time frame for possible success.

A poor outcome for Australia would be to set overly ambitious targets with a very high likelihood of not achieving them.

3. How can Australia further support other countries to decarbonise and develop sustainably?

We need to play an important role of support for our smaller Asian neighbours, through technology transfer, education and provision of available resources. Education and technology sharing where it is possible in agriculture, industry and energy in relation to carbon abatement will potentially be of high value, along with information sharing of the more valuable success stories in both emissions reduction and prevention.

Whilst there is so much valuable work being undertaken across Australia in relation to the circular economy, our nations steel industry is playing its part in recycled scrap steel projects which are important to assist steel producers to lower emissions, work on steel section traceability and the smart design of new buildings for longer term retrofitting, ease of deconstruction and re-use of steel building materials.

In 2021/22, the ASI in partnership with GBCA developed and rolled out Steel Sustainability Australia (SSA), which provides steel value chain members with a broad sustainability, circular economy and carbon reduction certification scheme in order to achieve incremental improvements across our industry. This is rapidly growing and achieving successful outcomes, and could in time be introduced to other countries to assist with their broader steel industries transition.

4. What technologies are important for each sector's pathway to net zero and why?

We can only comment on our steel industries technology pathways to net zero. There are two main routes to steel making:

- BF-BOF (Blast Furnace and Basic Oxygen Furnace) for primary steel making, using iron ore, coking coal, other materials and very high amounts of gas and electrical energy.
- EAF (Electric Arc Furnace) for secondary steel making, which uses approximately 90 percent recycled steel and very high amounts of electrical energy.

The transition for EAF steel production will be largely through the decarbonisation of the electricity grid, and the continual evolution of materials input and output development. Success will also be contingent on the availability of steel scrap supply.

The technology transition for BF-BOF primary steel making will be a longer path, as already mentioned, researching and developing the potential to move to H-DRI, via a G-DRI or natural gas supported pathway. G-DRI has the potential to reduce steel production emissions by up to 60 percent. Hydrogen-DRI will rely on successful commercial availability of Green Hydrogen, which amongst numerous problems to

solve for new technology steel production will require commercial success in storage and supply of very high volumes.

As our industry continues to work hard and invest heavily to transition to lower carbon steel making, and the Federal Government's national energy transition to renewables continues, the Government needs to ensure that throughout the transition all industry has firm, ongoing supply of high amounts of energy. Natural Gas will continue to play a significant role for some time, whilst also assisting with the reduction of emissions.

5. How can governments use mandates, rules, and standards to accelerate Australia's decarbonising? Is more planning by governments needed? If so, how should this be coordinated and how can this be done while making the transition inclusive, adaptive, and innovative?

In order to encourage our Australian industry to invest heavily into new low carbon steel making technology our Federal Government needs to ensure an effective Carbon Border Adjustment Mechanism (CBAM) policy and legislation is established in a timely manner. Late last year ASI made a submission to the government with our key recommendations for CBAM which is currently under consideration. Our industry cannot afford to invest the very high amounts required into new low carbon steel making technology if high carbon steel imports are brought into our market without needing to account for lower carbon steel making costs.

The importance and timeliness of a CBAM policy has been elevated now that the Federal Government has introduced the Safeguard Mechanism, introducing caps on GHG emissions for high abatement industries. The fundamental principle should be that domestic steel producers are not commercially disadvantaged as a consequence of meeting the Safeguard Mechanism emission reduction requirements.

Our governments need to ensure there are rules and standards developed which help verify embodied carbon levels of both imported and locally produced steel, and this would include embodied carbon chain of custody verification across all steel making processes. The planning for such rules and standards for the Building and Construction industry would need to be harmonised across the Federal and State Governments in order to be effective.

To help both stimulate and accelerate change in the Australian steel industry and in order to meet current emissions targets, significant grants funding from Federal and State Governments for our local steel manufacturers will be required.

We maintain, as per ASI's recent submission to the current Senate Inquiry into Waste Reduction and Recycling, the Federal Government must restrict the export of unprocessed steel scrap. Such exports are sending banned wastes offshore, such as plastics, rubber and glass from containerised end of life motor vehicles and white goods, whilst also sending steel scrap overseas which should be made available to local steel producers to purchase in order to reduce emissions.

6. How can governments stimulate private finance needed for the net zero transition – are there innovative instruments that could be deployed or new business models that governments could support? Is there a bigger role for governments to play in coordinating the investment needed to transition the economy?

Our Australian steel producers have adequate access to debt finance, and will require opportunities for significant government grants to fund ongoing research activities and low carbon steel making technologies.

Our European Union peers are receiving \$billions in subsidies to transition blast furnaces to gas and eventually H-DRI.

Further, to assist companies to raise private finance for significant decarbonisation project needs, Governments should provide the market with policy certainty, to initiate confidence to companies and financial backers for their decision making for such considerations.

7. How can governments better support markets, including carbon markets, to deliver emissions reduction outcomes?

As previously discussed, the Federal Government will need to better support markets through the following areas:

- Introducing an effective CBAM policy, and related legislation
- Work with State Governments, rule makers such as ABCB and Australian Standards, and our industry bodies including ASI, to ensure fair and equitable rules and regulations are established to prevent ‘green washing’ of imported building materials such as steel, and the trading of building materials carbon credits produced from carbon abatement programs.
- Reduce all barriers to the circular economy where possible, and support the need to prohibit the export of unprocessed steel scrap which is delivering banned recycled exports such as plastic and other wastes to our Asian neighbours and reducing much needed volumes of our locally produced steel scrap that would otherwise be available to our nations steel producers.
- All Australian governments need to develop harmonised, fair and effective carbon policies for global and local trade to ensure our nations manufacturers do not shift their own investment plans to offshore markets where they can make longer term decisions at fair and reasonable risk levels.
- Industry-specific emissions product standards have an important role to play in mitigating carbon leakage for steel. There are currently voluntary green labelling or product standards available for steel products across the globe

which have involved an enormous amount of industry consultation and set a minimum expectation for the sustainability credentials for steel products entering the Australian market. These are currently not mandated, however they are recognised in sustainability rating tools in the built environment, such as the Green Building Council of Australia (GBCA) Green Star tools and the Infrastructure Sustainability Council (ISC) rating tools.

8. What further actions can be taken by governments (e.g. through public funding), the private sector and households to accelerate emissions reductions, including in relation to the deployment of technologies and access to new opportunities in the transition to net zero? What barriers stand in the way and how could they be overcome?

The following opportunities and actions which can be taken by governments and industry to help accelerate the reduction in emissions along with reduce barriers to the transition include:

- Coordinated Federal and State Government planning to help make available more skilled workers for both national and state energy projects, with the objective of ensuring a sequenced project rollout for energy and infrastructure where possible – and not all our nations projects are attempting construction delivery at the same time.
- Ensure social licence, equity and effective community communication for grid and renewable energy projects rollout across all rural areas.
- Due to the scale of capital investment required for technology enablers, the provision of government low carbon funding grants to local manufacturers is critical. Public investment should be used to encourage and accelerate the transition of domestic steel producers to lower carbon emission intensity production technologies. In addition its scope should include funding for fundamental and applied research, preferably via industry-led collaborative initiatives such as the Australian Research Council funded [Steel Research Hub](#) and the [Heavy Industry Low-carbon Transition \(HILT\) Cooperative Research Centre](#).
- Carbon removal in the steel industry will require step change as technology break throughs occur, and as such the ASI is keen to work with all governments and stakeholders to ensure effective, pragmatic and factual joint communication to Building and Construction decision makers takes place.
- The pending CBAM policy scope should include all steel products such as imported fabricated goods as well as crude or semi-finished steel products, and such policy design needs to include the provision of a comprehensive traceability scheme that is capable of providing verification of the provenance of the carbon emission intensity value associated with any given parcel of semi-finished steel or finished steel products. This traceability scheme

needs to be able to account for the transit of imported steel and steel products through intermediate countries. In the absence of credible verified carbon emission intensity credentials, the value assigned should default to that of the highest quartile producer group in the country of origin.

9. How should governments decide upon the appropriate allocation of resources towards reducing emissions, removing carbon from the atmosphere, and adapting to climate change impacts?

Our national targets need to be aligned with a realistic and achievable national plan, incorporating into the goals the reality that hard to abate industries such as steel are going to take considerable time to achieve the necessary technology breakthroughs. Therefore, there will be a continuing need for ongoing available offsets, and other significant initiatives until technology break throughs occur.

The level of government funding and resources needed for the transition to meet emissions targets must be proportionate to the highest and hardest to abate areas of our economy. The Federal Government must ensure ongoing policy supports a sustainable healthy economy and jobs, for without which, longer term government income will not be able to support the enormous funding required for the low carbon economy transition.

As discussed earlier, there is a proliferation of national and state government projects in energy and infrastructure across the nation, which has generated a shortage of skilled workers. The Federal Government needs to initiate a national major projects plan together with the States with the goal of ensuring some sequencing of the biggest projects to lower the impact of enormous spikes in demand for skills.

10. How can governments, businesses and people, including First Nations people, help ensure the benefits and burdens of the net zero transition are equitably shared?

The ASI is not in a position to comment on this question.

11. How can governments better ensure First Nations people are empowered to play a leading role in the development and implementation of climate change policies and actions, including as they relate to the ongoing curation of the Indigenous estate?

The ASI is not in a position to comment on this question.

12. How can Australian governments support the wellbeing of workers, communities and regions as the nation decarbonises, including in relation to cost of living, workforce and industry transition and access to low emissions technologies and services?

The ASI is not in a position to comment on this question.

13. How can governments help Australians prepare for and respond to the impacts of climate change?

The Federal and State Governments need to be inclusive, open and transparent to communities and industry as they develop all policies for the transition to a low carbon economy. All policy decisions need be based on strong evidence and proven research facts, together with input from all stakeholders, and be discussed and debated openly so Australians become better educated and aware of fully justified need for change. As new strongly supported climate related research used by the Government in its policy decisions becomes available, this should be openly shared publicly to enhance ongoing awareness and education.

14. What else should the authority be considering in its advice to government?

As referred to in the 2024 Issues Paper, cross referenced modelling and analysis across such a large number of areas is complicated, and at times indicative. Together with the use of Climate Science data, we urge CCA and the Federal Government to take significant care when making such important decisions on our emissions goals and targets.

Thank you for this opportunity to provide this submission.

Yours sincerely



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