Submission to the *Climate Change (Net Zero Future) Bill*

AUSTRALIAN STEEL INSTITUTE

Submission to the NSW Climate Change Bill

The Australian Steel Institute (**ASI)** is pleased to make a submission to the *Climate Change (Net Zero Future) Bill*.

Introduction

The ASI is the 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 500 corporate memberships and over 350 individual memberships.

A not-for-profit member based organisation, the ASIs activities extend to, and promote, advocacy and support, steel excellence, standards and compliance, training, events and publications. The ASI provides marketing and technical leadership to promote Australian-made steel as the preferred material to the resources, construction, and manufacturing industries, as well as policy advocacy to government.

The Australian steel industry

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

Australia's primary steel producers and steel product manufacturers together form a strategically important value chain that has the capability to supply in excess of 90 per cent of the steel grades and qualities required in this country. If special categories such as very large diameter pipe, stainless steel, electrical steel, and tinplate are excluded, then the capability is significantly closer to 100 per cent.

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 it associated with a disproportionally large share of skilled jobs in regional and rural areas.

Steel fabrication is essential for manufacturing of bespoke construction products such as foundations, piling, columns, beams, girders, gantries, platforms, and towers. Areas of specialisation include wind turbine towers, transmission towers, storage tanks, chemical processing plant, boilers and pressure vessels, mining infrastructure refurbishment, mobile equipment for underground and surface mining, mobile cranes, bridges, armoured vehicles for Defence, naval and domestic ship building, rolling stock, truck bodies and trailer chassis.

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. Refer to the Appendix for additional details.

The NSW steel industry

The NSW steel industry is a key contributor to the overall NSW manufacturing industry. Due to the sheer size of the steel industry relative to other sectors of manufacturing, it provides backbone and critical mass for a broad range of infrastructure, transport logistics, technical expertise, and supporting services. It is also the source of essential inputs for many of the other manufacturing sectors. Steel is a key enabler for most of the national manufacturing priorities. As such, it underpins the sovereign capability to manufacture many products that are of long-term strategic and economic importance to our country.

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 noteworthy in having a high proportion of jobs and businesses located in regional areas or non-capital cities, where unemployment is typically higher than the national average. The industry is technically complex and requires a highly skilled workforce to support it, encouraging the ongoing presence of high-quality tertiary education institutions in regional areas.

Capability and Capacity

NSW hosts the majority of national primary and secondary steelmaking assets, with associated co-located downstream manufacturing and fabrication assets. It contributes approximately two thirds of the total annual Australian steel production.

NSW has world leading manufacturing capability in many areas of steel product application. Some examples include wear resistant and ballistic plate steels for mining and defence applications, grinding media for mineral processing, strata control products for underground mining, wire rope for open cut mining, wheels for both mainline and heavy haul railway applications, strapping for load restraint, engineered bar and resultant products such as automotive springs and specialty fasteners, racking and shelving for automated warehouse solutions, highly durable coated steel water pipe for infrastructure, and a myriad of specialised components for building, construction and defence industry applications. Essential components

for transport infrastructure such as highway guard rails, safety barriers, overhead signs, stanchions, light poles, and fences are all made by a number of local producers.

Company	Locations	Annual Production	Products
Primary Steelmaking			
BlueScope	Wollongong	3.2 million tonnes	Hot rolled coil, Plate
InfraBuild	Western Sydney	0.7 million tonnes	Reinforcing products, Merchant bar
Molycop (Comsteel)	Newcastle	0.25 million tonnes	Bar products, Railway wheels
Secondary Steelmaking			
AusTube Mills	Newcastle (tube making)		Pipe and Tube, RHS, Coated tube products
Bekaert	Newcastle (rope making)		Steel rope (highway barriers, mining)
Bisalloy	Wollongong (heat treating)		High strength and wear resistant plate
BlueScope	Wollongong (cold rolling and coating) Erskine Park (coating) Wollongong (continuous welding)		Metal coated and painted sheet steel Welded beams
InfraBuild	Newcastle (rolling)		Reinforcing and wire products

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Comments on Terms of Reference

The ASI recognises and supports the targets contained in the Climate Change (Net Zero Future) Bill. The ASI notes that these are in line with national targets that have been set by the Commonwealth government.

ASI steel producing members with manufacturing facilities in NSW have individually advised that they are committed to meeting the targets, each with their decarbonisation plans outlined in their reports accessible via the below weblinks:

BlueScope Steel: https://www.bluescope.com/sustainability/climate-action

InfraBuild: https://www.infrabuild.com/our-stories/infrabuilds-decarbonisation-strategy/

Molycop: https://www.molycop.com/sustainability/environment

The focus on decarbonisation of the state electricity grid is a critical enabler for steel producers to achieve their own net zero targets. This is particularly the case for those businesses that utilise a high proportion of electrical energy in their manufacturing processes, or are seeking to increase the electrification of manufacturing processes.

Yours sincerely

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Appendix - The role of steel in the growth of renewable energy

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, as illustrated in this table:

Wind:

- It is estimated that each 1 MW generated by an onshore wind tower requires 124 tonnes of steel.
- Offshore wind increases generation scale and steel consumption further. Each 1 MW generated by an offshore wind tower requires 190 tonnes of steel.

Solar:

- The steel components include a foundation pile (normally a hot rolled channel or column), torque tube (octagonal, square or tubular hollow section), frames or Rails for PV panels and Brackets.
- Typically, about 45 tonnes of steel are required for each 1 MW of solar energy generated.

Water:

- Hydro projects require large diameter steel liner pipes, penstock, related fabrications, tunnel reinforcement, and foundations.
- It is estimated that each 1 MW of hydro power will require 161 tonnes of steel.

Transmission:

- Each 1000 kms of transmission line typically requires 2500 towers at 30 tonnes per tower.

The fabricated steelwork required for this transition includes a mixture of components that are readily available in Australia and those that haven't been sourced locally for many years. The sheer scale of the demand and the extended timeframe over which it is required mean that this energy transition provides a unique opportunity to develop advanced manufacturing capability in several areas of strategic importance for future energy security. These opportunities include but are not limited to:

- Onshore wind tower fabrication;
- Offshore wind tower fabrication;
- Production of large diameter tube suitable for manufacturing of torque tubes for solar cell tracking and support frame structures;
- High voltage transmission tower fabrication.