AUSTRALIAN STEEL INSTITUTE

13th November 2024

Senator The Hon Tim Ayres
Assistant Minister for Trade
Assistant Minister for A Future Made in Australia

Local Content for Renewable Energy Infrastructure Projects
- Australian Steel Institute (ASI) submission

Dear Assistant Minister Ayres,

The ASI is pleased to provide the following submission in response to the Local Content for Renewable Energy Infrastructure Projects consultation. The ASI has been deeply engaged in the development and implementation of renewable energy infrastructure plans across most states and territories. ASI is represented on the NSW Renewable Energy Sector Board (RESB), and has played a significant role in the development of the RESB Plan. The ASI draws on this experience, and on feedback provided by ASI members, in the generation of the responses to the consultation questions.

Prior to addressing the individual questions, the below summary of how steel is used in the various types of renewable energy infrastructure is provided for context and background.

Renewable Infrastructure Type	**Steel Component**	**Function**	**Existing Local Capability**
1. Wind Turbines (onshore)	Reinforcement mesh	Reinforcement of concrete foundation	Complete supply chain of multiple suppliers with surplus capacity
	Anchor cage	Fabricated structure to connect tower base to steel foundation	Complete supply chain of several local suppliers with sufficient capacity
	Tower column	Fabricated structure to elevate and support nacelle and turbine blades	Sufficient capacity of plate steel. Limited fabrication capacity in two states

2. Solar Farms	Universal columns (piled foundation)	Driven pile for foundation structure	Complete supply chain of multiple suppliers with surplus capacity
	Reinforcement mesh (concrete foundation)	Reinforcement of concrete foundation	Complete supply chain of multiple suppliers with surplus capacity
	Solar tracker	Torque tube to enable tilting of panels to follow sun trajectory	Complete supply chain of multiple suppliers with surplus capacity
3. Pumped Hydro	Penstock, tube linings	High strength, wear resistant linings for water handling	Sufficient capacity of plate steel. One processor with surplus capacity
	Rock bolts	Strata control for tunnel construction	Complete supply chain of multiple suppliers with surplus capacity
4. Transmission Towers (lattice tower design)	Reinforcement mesh	Reinforcement of concrete foundation	Complete supply chain of multiple suppliers with surplus capacity
	Tower structure	Fabricated structure to elevate and support high voltage power cables	Sufficient capacity of merchant bar. Multiple fabricators with theoretical capability and ample capacity but no recent experience
5. Transmission Towers (monopole design)	Reinforcement mesh	Reinforcement of concrete foundation	Complete supply chain of multiple suppliers with surplus capacity
	Tower structure	Fabricated structure to elevate and support high voltage power cables	Sufficient capacity of plate steel. Multiple fabricators with theoretical capability and ample capacity but no recent experience

Responses to questions

- *What firms are building each renewable infrastructure type, what is their service model, and what firms are doing procurement?*

For all five types of renewable energy infrastructure types described in the table above, the great majority of design, procurement, and installation is being done by large multinational businesses that are focussed on development of renewable energy projects. Based on the information available to the ASI, these businesses are closely aligned with long-term international partners that provide their steel procurement requirements. Due to these long-term relationships, the multinational EPCMs are typically very reluctant to consider local supply arrangements.

- *What is Australia's capacity to meet the structural steel requirements for this market?*

Australia has ample capacity to meet the structural steel requirements for many of the renewable energy infrastructure types, with proven capability. These include the supply of reinforcing steel for concrete foundations, universal columns for piled foundations, torque tubes for solar farm tracker systems, and components for pumped hydro. For the other types, there is ample capacity at the semi-finished steel stage, but only limited or theoretical capacity for the fabricated components.

- *For each part of the renewable energy infrastructure technology, what is Australia's capacity to manufacture the components here? With the appropriate policies, what future industrial capability could be developed to manufacture each of the components?*

The analysis done by MBB Group and also the UTS Institute for Sustainable Futures (ISF), which is contained in the three supporting documents (Supply Chain Analysis Report - NSW Electricity Infrastructure – June 2021, Employment, Skills and Supply-Chains: Renewable Energy in NSW – Progress Report – July 2021, and Employment, Skills and Supply-Chains: Renewable Energy in NSW – Draft Report – September 2021) provides detailed information on all items required for renewable energy infrastructure technology, including non-steel items.

Based on the experience of renewable energy infrastructure plan implementation in several jurisdictions, the key policy to attract investment in local industrial capability, is a comprehensive local content framework. This needs to be accompanied by sufficiently high contents targets such that the investment is at an optimal economic scale to ensure the resultant facilities are globally cost competitive and state-of-the-art for quality and automation.

- *How can local content policy benefit priority regions from the investments in new manufacturing?*

Local content policy can be quite targeted to ensure that the focus is on priority regions, for example the declared Renewable Energy Zones (REZ) in NSW. These types of priority regions can benefit directly from investment in manufacturing facilities such as wind tower fabrication, where the likely scale of employment

(typically 150 to 200 direct FTE positions for a state-of-the-art dedicated facility) are sufficient to stimulate long term investment in skills development, but without creating an unwelcome surge in demand for labour at the expense of existing local manufacturing industries.

- *What initiatives could the Government consider for increasing the use of local structural steel in renewable infrastructure projects?*

A key recommendation associated with a comprehensive local content framework is the requirement that the structural steel be both fabricated and milled locally. This helps to ensure the participation of the complete supply chain, with very significant potential for a sustained increase in local employment. In addition to the benefits accruing to the local steel mills that produce semi-finished steel, there is a significant employment multiplier associated with processing, distribution, warehousing, and transport logistics. Australian steel distributors have extensive regional branch networks and established supply chains that already service all parts of the country. If there is increased demand through this existing supply chain, it can be scaled up relatively quickly, and without a cost inflation impact for existing local businesses. In this way, local employment targets can readily be met by simply scaling up the many existing facilities and operations.

- *How can these initiatives be implemented efficiently and what collaborative industry or policy mechanisms should be introduced to enhance manufacturing competitiveness?*

In addition to a comprehensive local content framework with sufficiently high content targets, the other critical component is the existence of an independent advocate who can monitor compliance to the local content requirements, and act in the event of a breach occurring.

- *What would be required to ensure local structural steel firms are able to take advantage of these opportunities? Where this involves an increase in production capacity, how soon could structural steel capacity be ready?*

The ASI is of the view that the previously mentioned comprehensive local content framework is sufficient to send a credible investment signal to the steel fabrication industry that there is a genuine opportunity to become a long-term supplier to the renewable energy infrastructure market. Access to existing grant funding and/or loan facilities such as are available via schemes such as ARENA or the NRF, is also beneficial. The key impediment to investment remains the concern that if a dedicated facility is built for a highly specialised product such as wind towers, and it is not given certainty regarding local demand for these products, it would result in significant economic loss. (By way of example, it is estimated that the cost to build an economically scaled wind tower fabrication facility in regional NSW, with annual capacity of approximately 100 towers, would be approximately $100M.)

- *Do these initiatives need to be operated differently in each of the four sectors – offshore wind, onshore wind, solar PV and transmission, and what particular market, business model, technological and innovation imperatives should drive a sector-specific approach?*

To the extent that each of the renewable infrastructure types discussed in this submission is made up of a combination of commodity steel products (e.g. reinforcing mesh), and sophisticated manufactured products (e.g. torque tubes), the overarching comprehensive local content framework and associated targets needs to reflect the volume or scale that is required for an optimally sized manufacturing facility for each steel component.

Yours sincerely,

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About the Australian Steel Institute

The Australian Steel Institute (ASI) is the national peak body representing the entire steel supply chain, from the steel producers through to end users in building and construction, resources, heavy-engineering, and manufacturing. As a not-for-profit member-based organisation, the ASI reach includes approximately 6,000 individuals that are associated with more than 600 corporate memberships and over 350 individual memberships. The corporate membership base is inclusive of all the domestic steel producers, and the great majority of the distribution sector. In the downstream part of the steel supply chain, there are over 300 steel fabricator members, along with a wide range of building product manufacturers. These are supported and complemented by over 160 consulting structural / civil engineering business members.