Embodied Carbon Reduction Pledge Policy

A proposal for Government to introduce a simple procurement measure requiring head contractors to reduce embodied carbon in their supply chain

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This information pack was prepared by members of MECLA's Working Group on Demand

Ann Austin, Lendlease
David Ritter, Grimshaw Architects
Jennifer Slocombe, Department of Planning, Transport and Infrastructure, SA (DPTI)
Pip Harley, NSW Ports

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COLLABORATION FOR CHANGE

MECLA acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples.

Background

Four groups were identified by MECLA as highly influential in driving demand for low embodied carbon: policy makers, government clients, non-government clients and designers. During 2022-2023, over 100 ideas for inspiring these groups to create a stronger demand signal for low embodied carbon outcomes were rationalised to a longlist, tested and voted on by MECLA members and in NSW Government forums. Four ideas emerged as top priorities, including the Embodied Carbon Reduction Pledge Policy. A subgroup was formed to develop the concept, with iterations further tested across the MECLA membership.

This information pack summarises the output from this process and provides an outline of the recommended Embodied Carbon Reduction Pledge Policy. It is primarily aimed at policy makers and government organisations - whether federal, state or local government - and explains how they can set a requirement for head contractors for major works to commit to an embodied carbon reduction target across their organisation.

The Embodied Carbon Reduction Pledge Policy Proposal seeks to address the chicken-and-egg problem across industry where the lack of skills, capacity and products on the supply side leads major infrastructure and building development clients to be unwilling to commit to a high-level of ambition as there is associated risk and cost to delivery. Or to look at this from the demand perspective, because there is no clear requirement from government clients for head contractors to commit to embodied carbon reduction targets, there is no incentive for them to change the status quo and drive change across their organization and supply chains.

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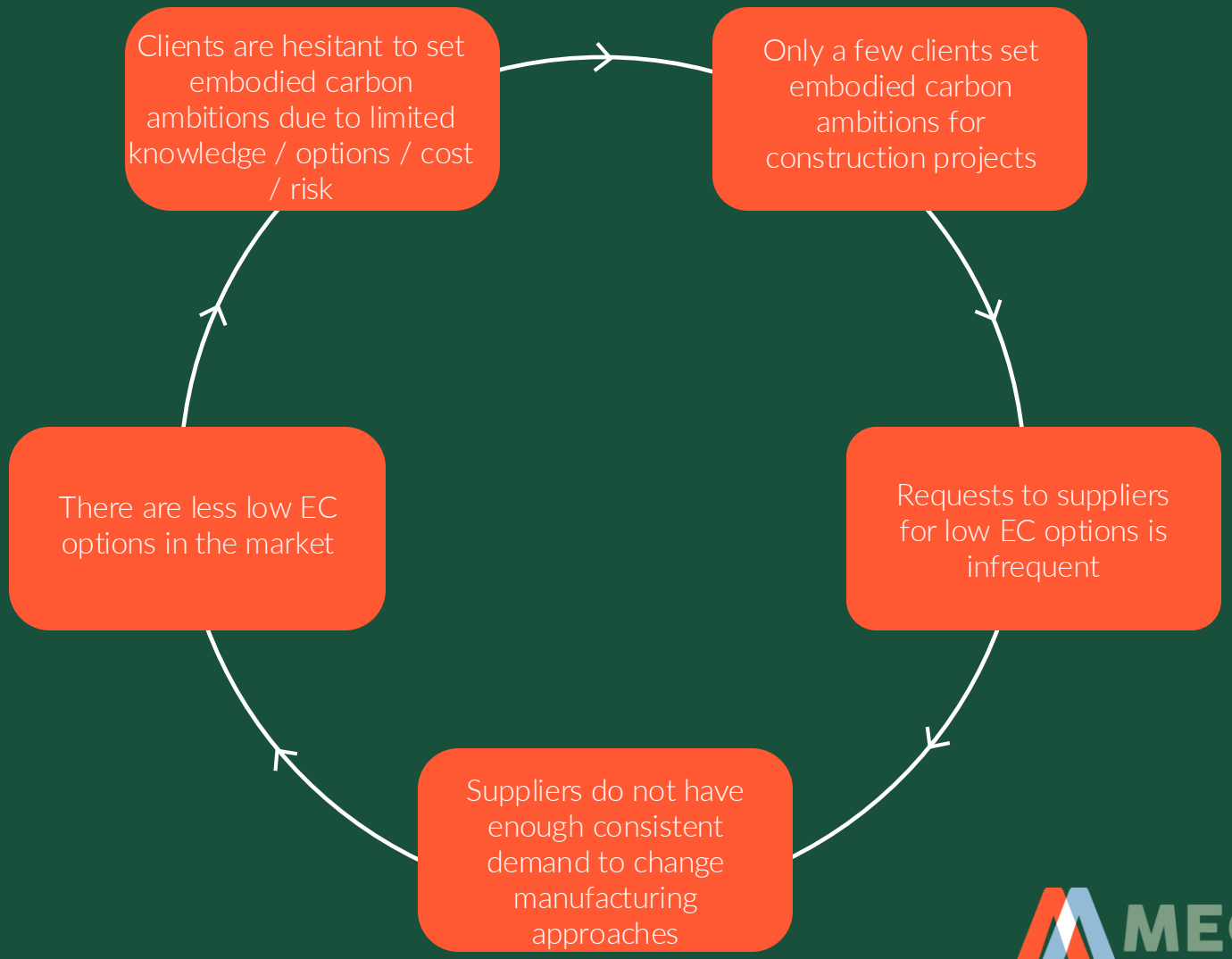
The Challenge - Ensuring a consistent ask

The status quo supply and demand negative feedback loop means there is little incentive or appetite to drive embodied carbon (EC) reduction



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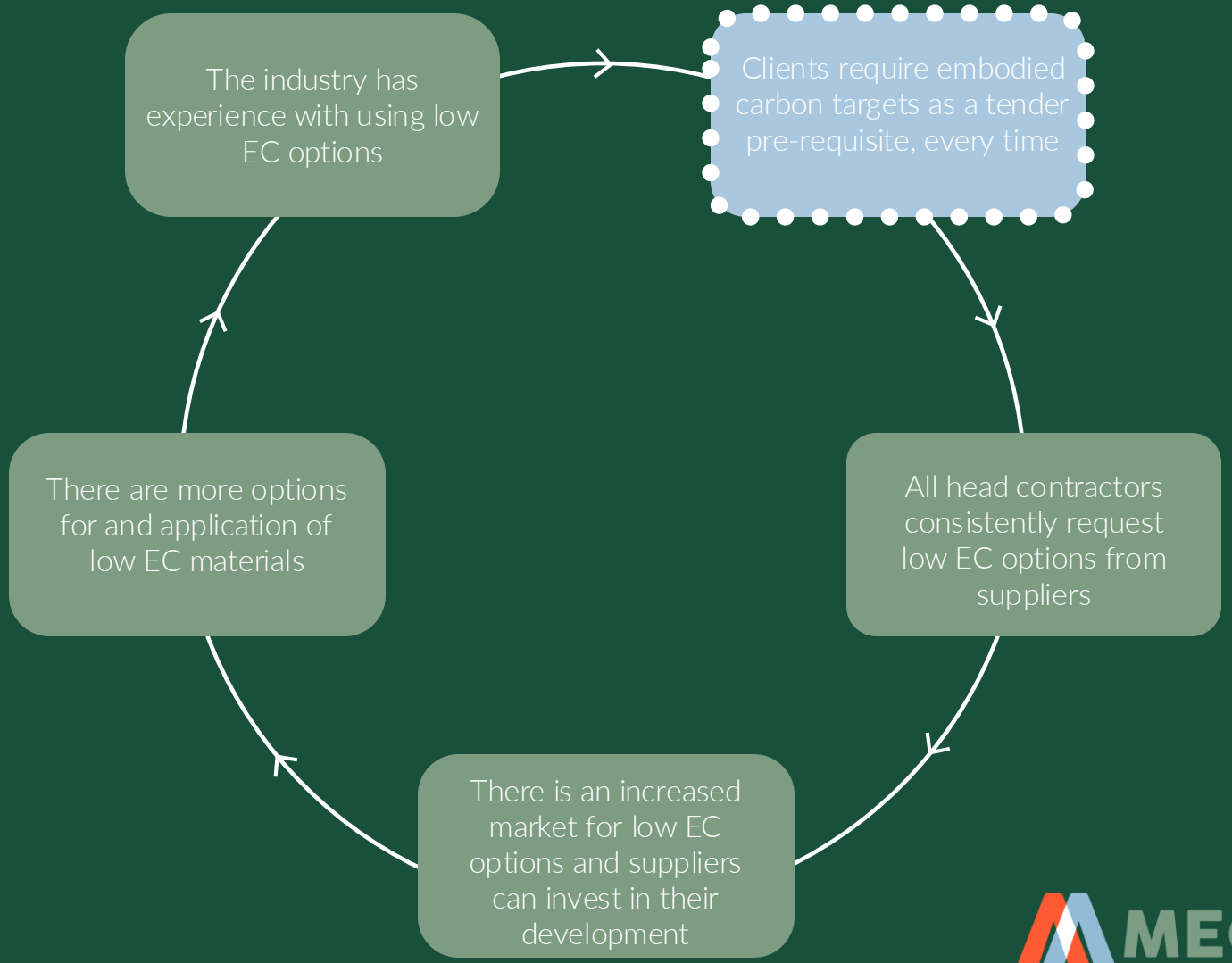
‘The Pledge’ - Seeking to drive consistent demand

The ‘pledge’ initiative requires head contractors to publicly commit to embodied carbon (EC) reductions across their supply chain. It seeks action as a circuit breaker to the current feedback loop and drive positive and consistent market transformation



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Proposed Policy Approach

The pledge applies to the contracting **entity** – it is not a requirement for their suppliers (though the head contractor may decide to pass it on).

The target and progress against it must be **publicly available** in an **accessible place** such as a website, annual report, sustainability report or similar. Contractors should demonstrate compliance via provision of a **link** to the publicly available target. No additional documents / evidence is required.

The commitment / target must apply to the **head contractor's total organisation**. This ensures consistency of demand and simplifies assessment of compliance.

Whilst science-based targets are preferred, the target can be **any form of SMART target** that the head contractor organisation prefers.

Require head contractors to have a publicly available organisational target commitment to reduce embodied carbon in construction materials as a pre-requisite to be able to tender.

The target / commitment must address **reduction of embodied carbon emissions** in construction materials (for head contractors, this is a **Scope 3** emission source). Scope 1 and 2 targets are desirable but not the focus of this policy. As a minimum it is recommended to cover upfront carbon stages A1-A5 of lifecycle stages covered in EN 15978

The policy is for **reducing** embodied carbon, **not offsetting** it. Offsetting Scope 3 emissions is a strong interim step not to be discouraged but is not considered an embodied carbon reduction strategy and is not as effective in driving change in supply chains.

In its early stages of introduction, government agencies are encouraged to use the pledge as a **'pass/fail'** requirement for tender. In time, they may choose to rank or assess tenders on the quality of their pledge. For example, requiring or preferring embodied carbon targeting and reporting to be part of a third-party verified scheme.

The first step is to **build the habit** of consistently having a pledge.

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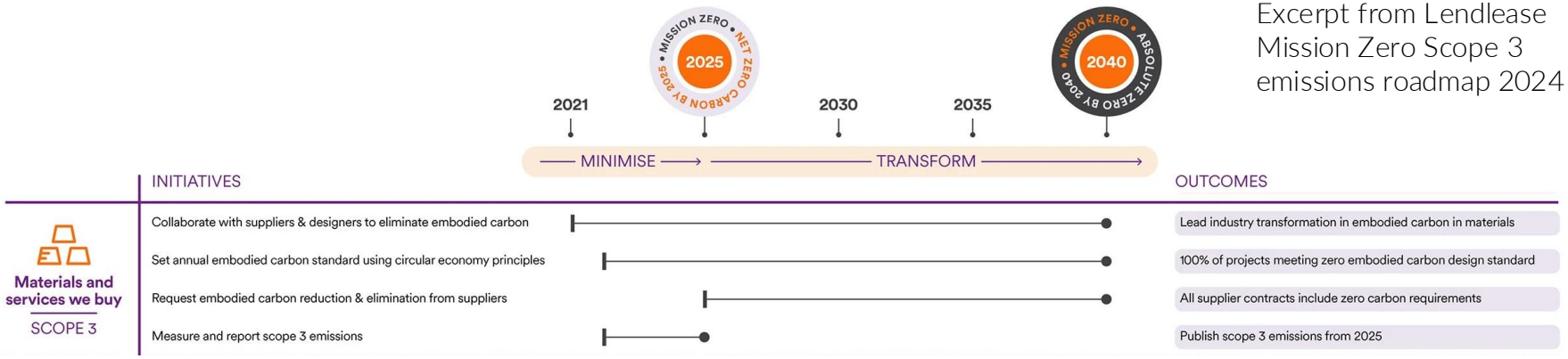
Making an effective pledge...

Head contractors should consider:

- Specific, measurable, achievable, time-based objectives
- A focus on the organisation's most significant upfront Scope 3 emissions (A1-A5)
- A supporting action plan for how to progress, measure and report against the target or commitment
- How to leverage supplier collaboration
- Third-party verification for accountability

NOTE: Whilst this policy does not propose evaluation of head contractors' emission reduction commitments (beyond verifying that they exist), contractors are encouraged to set a meaningful Scope 3 emission reduction commitment.



Excerpt from Lendlease Mission Zero Scope 3 emissions roadmap 2024

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Embodied Carbon Reduction Commitments may sit across a maturity scale…

1. Elemental
Target focused on key material, or basic aim

Example:
'We commit to use 20% cementitious replacement in all concrete mixes used'

2. Scaling Up
All-of-organisation target

Example:
'We commit to reduce our upfront Scope 3 emissions by 20% by 2030'

3. Advanced
Science based all-of-organisation target

Example:
'We commit to reduce our upfront Scope 3 emissions aligned to science-based targets'

As part of a head contractors pledge it is recommended to phase in the maturity level over time e.g.:

- Year 1 – Elemental commitments
- Year 2 / 3 – All-of-organisation targets
- Year 4 / 5 – Advanced science-based targets

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Demand Side Case Study examples - Emerging Policy: ‘the Ask’

Some examples of government procurement policy that are already employed to create the demand signal for embodied carbon reduction:

Organisation	Policy summary:	Reference:
Government of South Australia, Department for Infrastructure and Transport	• Commitment to deliver low emission infrastructure and operations and using its procurement power to help drive the transition to a low carbon, circular economy. The Department uses its construction procurement processes to support suppliers who offer low carbon products and services and who effectively manage carbon and increase recycled content in their supply chain. • To tender for work >$50m contractors must provide evidence that they have an organisational emission reduction target(s) addressing their Scope 1, 2 and at least one Scope 3 embodied emission source. The emission reduction target(s) must be SMART and must be publicly available (e.g. on the contractor’s website).	https://www.dit.sa.gov.au/contractor_documents/sustainable-procurement
NSW Government, Infrastructure NSW	Although this overarching procurement policy published by Infrastructure NSW is addressing construction project commitments (not head contractor whole of organisation commitments), a pledge policy inclusion by government agencies would be supportive of its aims: • Mandatory inclusion of decarbonisation as part of market engagement and requirement to understand market appetite and ability for decarbonisation • Optional actions (for agencies with maturing capability) to include low carbon design and construction methods in tender evaluation criteria and include carbon management requirements as an evaluation criterion.	https://www.infrastructure.nsw.gov.au/expert-advice/decarbonising-infrastructure-delivery/

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Supply Side Case Study examples – 1. Elemental

Elemental pledges typically relate to a focus on a key material supply chain or commitments to sustainability targets that include consideration of embodied carbon reduction, e.g. Green Star:

<table>
<tr><th>Organization</th><th>Pledge summary:</th><th>Source</th></tr>
<tr><td>Built</td><td>Commitment to applying the Built Green Standard (applies to all projects):
• 60% of construction materials to be Green Star compliant
• 30% cement reduction</td><td>https://www.built.com.au/sustainability/</td></tr>
<tr><td>Laing O'Rourke</td><td>Laing O'Rourke Australia's Concrete Carbon Limits:
<table><tr><th colspan="2" rowspan="2"></th><th colspan="4">Concrete Strength Grade:</th></tr><tr><th>40MPa and below</th><th>50MPa</th><th>60-65MPa</th><th>80MPa</th></tr><tr><td rowspan="2">Embodied carbon limits ($kgCO_2 / m^2$)</td><td>Max. Tolerance</td><td>325</td><td>365</td><td>380</td><td>450</td></tr><tr><td>Low Carbon Definition</td><td>250</td><td>300</td><td>340</td><td>380</td></tr></table></td><td>https://www.laingorourke.com/company/news/2024/laing-orourke-sets-carbon-limits-for-australian-procured-concrete/</td></tr>
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Supply Side Case Study examples – 2. Scaling Up

Examples of scaling up are demonstrated where broader whole-of-organisation pledges are evident:

Organization	Pledge summary	Source
McConnell Dowell	Target for Scope 3 emissions reduced by 50% by 2030 based on the McConnell Dowel Group's Horizon 2030 carbon reduction plan.	https://www.mcconnelldowell.com/sustainability
CPB Contractors	Net Zero Scope 3 emissions by 2045 as part of stated environmental sustainability targets	https://www.cpbcon.com.au/about-us/our-priorities/sustainability
Multiplex	Net zero carbon across the value chain (including Scope 3) by 2050 at the latest	https://www.multiplex.global/au/about-us/responsible-business-esg/environment/
Laing O'Rourke	Becoming a net zero company before 2050 (including Scope 3 emissions)	https://www.laingorourke.com/thinking/powering-forward-to-achieve-net-zero/

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Supply Side Case Study examples – 3. Advanced Pledge

Examples of advanced organisational wide pledges with science-based, third-party verified targets and accompanying action plans

Organization	Pledge summary	Source
Lendlease	• Commitment to Absolute Zero by 2040, a target that includes Scope 1, 2 and 3 emissions, without the use of offsets. • Reduction targets have been validated by the Science Based Target initiative as being line with a 1.5°C trajectory. • An extensive exercise has been undertaken to determine the boundary of Scope 3 emissions for their organisation in the Lend Lease Scope 3 Emissions Protocol	https://www.lendlease.com/au/sustainability/climate-and-environment/
Acciona	• The goal is to eliminate 60% of scope 1 and 2 emissions and 47% of scope 3 emissions in the period 2017-2030. • Reduction targets have been validated by the Science Based Target initiative as being line with a 1.5°C trajectory.	https://www.acciona.com/our-purpose/sustainability/climate-emergency/?_adin=02021864894

Considerations for Policy Makers….

Guidance to Head Contractors

Given the varying levels of carbon management maturity among head contractors, it is suggested that policy makers provide information on trusted embodied carbon reduction methodologies and examples of Scope 3 embodied carbon emission reduction targets/ commitments. MECLA is able to prepare and publish such guidance.

Broader Consultation

Whilst MECLA has undertaken some initial consultation on the proposed policy within its own membership, this is not considered representative of the broader industry. Industry engagement is recommended prior to introducing the policy.

Lead Time

If an organisation does not already have an embodied carbon reduction target, it is likely to take at least 12 months to learn about embodied carbon and develop an appropriate target. Providing sufficient lead time will allow organisations to set meaningful, considered targets.

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FAQ

Why is this a good policy idea?

The strengths of the policy include:

- It allows organisations to match the level of ambition to their carbon maturity and communicate without complex reports.
- It is a gentle way to introduce ALL organisations to embodied carbon reduction targets. It helps prepare them for future requirements/ expectations
- It does not rely on a measurement methodology to be agreed (a current topic of industry debate)
- It is easy to administer with 'evidence' being existing published information
- A consistent application increases the demand for low embodied carbon products and makes investment in innovation more viable with all head contractors focused on reducing embodied carbon

Why require an organisational target or commitment instead of a project target?

An organisation-wide target helps drive demand by being consistently applied to an organisation's entire project portfolio (much like indigenous employment targets). We want low embodied carbon to be a consistent ask, not just for 'some' projects. An organisation-wide target allows for some projects to outperform where there may be more opportunities – it gives the head contractor more control on meeting the target. It is also easier to demonstrate the existence of an organisation-wide target as these are likely to be published on websites (over a project target), for example.

Why exclude carbon neutral products?

While offsets are an important interim step in addressing global warming, our ultimate ambition is to eliminate emissions from materials manufacturing all together. Including carbon neutral products in the project's targets masks the performance against absolute carbon elimination and may reduce the incentive to transform manufacturing.

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How will agencies assess compliance with the requirement?

It is recommended organisations 'prove' they have a publicly available target/ commitment to reduce embodied carbon by simply providing a link to where this target and progress against it is published (e.g. website, social media page, annual report). By being in the public realm, it is hoped the head contractor is motivated to provide a credible and robust target and verifiable progress against it.

Should head contractors' targets/ commitments be assessed as part of tender selection?

MECLA recommends initially the existence of a Scope 3 embodied carbon target / commitment be a pass/fail pre-requisite to ease the industry into targeting embodied carbon reduction. In time, agencies could 'score' the level of ambition in embodied carbon targets and robustness of implementation publicly demonstrated as a core part of tender evaluation.

How onerous will it be for head contractors to comply with the requirement?

The requirement is specifically designed to avoid being onerous. It allows the head contractor to set the level of 'onerousness' they can tolerate. By choosing their own target / commitment, rather than having a set embodied carbon target imposed on them, organisations can select targets they are confident they can work towards and that fit their maturity and scale. Evidence being in the form of a link to published targets also ensures no reporting burden.

Who has been consulted in developing the idea?

All MECLA members have been consulted in the formation of the policy proposal. Specific sessions were held with MECLA representatives from head contractors (largely tier 1) and materials supplier organisations.

Several state government agencies and the APCC have been presented to. Agencies keen to adopt the policy are encouraged to conduct further consultation.

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FAQ

What feedback was received?

Overall, MECLA members have been supportive of the concept, specifically its flexibility for head contractors to choose their own embodied carbon reduction ambition.
There was a request to encourage the use of existing 'tools/approaches' to help set targets, such as science-based methodology and relevant Green Star credits.
The Steel supplier representatives expressed concern in their ability to move quickly in reducing embodied carbon and as such are helping develop guidelines for organisations setting targets to ensure they are aware of the specific limitations of certain products and the need to set broad, non-product-specific targets.
And lastly there was a consistent hope that Government too would adopt targets / commitments to reduce their own embodied carbon.

What role would MECLA play if the policy is adopted?

Should the policy be adopted, MECLA would be happy to provide guidance and support to organisations yet to establish embodied carbon reduction targets. MECLA has already commenced the preparation of a 'how to set an embodied carbon reduction target' guide to go on their website and would anticipate offering webinars and general support. MECLA can also assist with further industry consultation and presentations.

This document is introductory in nature and may not be suitable for your intended purpose. It does not constitute technical, legal or other advice and should not be relied upon as such. You should always obtain your own technical, legal or other advice from a qualified professional based on your specific circumstances before taking any action relating to matters covered by this document.

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Website: mecla.org.au
Email: info@mecla.org.au