

Submission to Infrastructure Victoria on opportunities to reduce greenhouse gas emissions of Victorian Government infrastructure.

The Victorian Government is seeking Infrastructure Victoria's advice on opportunities to reduce the greenhouse gas emissions of future public infrastructure investments.

Submissions are now open for stakeholders to provide evidence-based recommendations, case studies and research to inform the development of our advice. Infrastructure Victoria will review all submissions and develop our advice to government.

Submissions will be open from 14 April – 12 May 2023.

This form provides prompts based on the [terms of reference](#) as supplied by the Treasurer.

Infrastructure Victoria will only publish submissions if you have provided permission for us to do so. If you have provided any sensitive or commercial-in-confidence information that you do not wish Infrastructure Victoria to publish please make this clear in your submission.

Please note that you are not required to respond to every prompt in the form below. You will be able to submit multiple attachments if required via our website. This can include any case studies, data, or further information you would like to be considered in our advice. We request you include references to any evidence provided in your submission.

SUBMISSION FORM

Evidence-based opportunities to reduce greenhouse gas emissions of Victorian government infrastructure – please include references for your evidence.

What are the key opportunities for the Victorian government to identify, prioritise, quantify, incentivise, and track reductions in infrastructure emissions at early strategic planning and investment decision making stages?

Consistency of approach and engage with the private sector early in the decision making incl policy development, project conception and pre-design phase to ensure industry can deliver while testing ideas and requirements.

██████████ presentation to the MECLA PCG on 20 April. Attachment One

A pledge pre-requisite is an idea from MECLA's WG1 – see Attachment Two

Adopt and modify to suit Victorian government needs the Infrastructure NSW Principles - <https://www.infrastructure.nsw.gov.au/expert-advice/decarbonising-infrastructure-delivery/>

Adopt and modify to suit Victorian government the suggestions in the Infrastructure Partnerships Australia business case – see here - <https://infrastructure.org.au/decarbonising-construction-base-case/>

How can the Victorian Government improve or amend existing policies, guidelines, regulatory tools, standards, and frameworks for infrastructure investment and procurement assessment to reduce emissions?

Please provide detailed actions for these improvements if possible.

Consistency of asks and policy levers are important.

Consider adopting a policy such as recently in NSW:

https://gazette.legislation.nsw.gov.au/so/download.w3p?id=Gazette_2023_2023-97.pdf

MECLA's event in Qld included Laing O'Rourke [REDACTED], with detail on what the company is doing and messages for government.

<https://www.youtube.com/watch?v=u09TNOfwQ1o>

First... **POLICY!**

We need mutual understanding with clients around the long-term value of low carbon options for community & climate – a new VfM equation

Then...

- A. State government policy that supports investment (harmonised nationally)
- B. Performance based specifications which are meeting the evolving low-carbon solutions
- C. Collaborative contract model which allows for low-carbon approaches to be tabled during the ECI phase.
- D. We need to move at speed

The MECLA Spotlight event on pre-design and design strategies had some important messages from the speakers.

<https://mecla.org.au/spotlight-on-pre-design-and-design-strategies-for-lowering-embodied-carbon/>

Some insights included:

1. Timing: get in early and pick your moment and have early engagement with suppliers.
2. Education: educating oneself on your own supply chain and how the materials are used will help achieve better decarbonisation outcomes.
3. Keep it simple: don't overwhelm suppliers. Tailor the specification and use clear and tailored returnable schedules based on product/material type.
4. Data driven focus: focus on the big hitting items and use LCA to guide you. Set clear targets for design teams, suppliers, and delivery teams.
5. Do we need to demolish/build this or can we use the existing building?

6.Can we optimise structural efficiency by reducing grid dimensions or having smaller floor loads?

7.Can we use less carbon intensive materials like timber, supplementary cementitious materials, or greener steel if possible?

How can the Victorian Government incentivise or encourage private industry to increase the production and adoption of low-carbon materials and/or delivery methods through infrastructure procurement?

Lendlease's Jeremy Mansfield stresses the importance of persistence and collaboration as the foundations for Lendlease's successes. Supporting industry and sending the right signals to support low embodied carbon solutions is an important role for government. He listed a series of actions that can be taken to accelerate the transition:

- . Building capacity and buy in,
- . Setting embodied target minimums,
- . Implementing early engagement models,
- . Undertaking LCA early on, before design.

According to Jeremy, collaboration is the foundation. Collective action is needed in all of this to hit our targets and realise a low carbon future. <https://www.youtube.com/watch?v=9-788cHfQEM>

What enablers or barriers need to be addressed? What are the impacts on reducing emissions, increasing productivity, and decreasing costs?

Please provide evidence or case studies that highlight the impacts of infrastructure decarbonisation on costs and benefits for stakeholders across the supply chain.

MECLA has several case studies on our website.

<https://mecla.org.au/case-studies/>

here is a link to the original research undertaken by WWF and Presync that helped to inform the establishment of MECLA:

https://wwfint.awsassets.panda.org/downloads/wwf_decarbonising_building_and_construction_materials_report.pdf

And soon we will be hosting a myth busting Spotlight event. See our events page for more details.

Is there anything specific to the timing or sequencing of recommendations that Infrastructure Victoria should consider in our advice? Please consider how best to maximise long-term outcomes and minimise transitional costs for the government, the industry, and the community in your response.

Please see above and attached.

There is still much to do to provide comparative emissions factors and development of reliable tools. Transparency of methods is often lacking and as a result it becomes more of a 'choose your own adventure' rather than a deliberate and comprehensive approach. NABERS is attempting to create greater clarity and harmony of the measurement of embodied carbon in their tool, but it won't comprehensively cover infrastructure.

WG2 [Discussion Paper](#) on benchmarks, calculators, tools, and functional units is important to the infrastructure decarbonisation and worth reading. For example, "Over 143 standards were identified (many with multiple variants and editions). Considerable effort was required to map the relationships and precedent amongst the standards. These were subsequently reduced and synthesized to arrive at a core group of "standards" most closely aligned and relevant to a single impact point, "embodied carbon" at material / building and infrastructure scale."

Functional units for infrastructure were not covered for infrastructure and WG2 subgroup on infrastructure will try and tackle this issue this year. Consideration could be given to joining that sub-group.

More work will be undertaken to develop EPDs by the NSW government as an exploratory opportunity to drive low carbon materials.

We would be happy to host an event and engage the MECLA membership in a deeper and wider conversation about embodied carbon management of infrastructure.

More information is on our website – www.mecla.org.au

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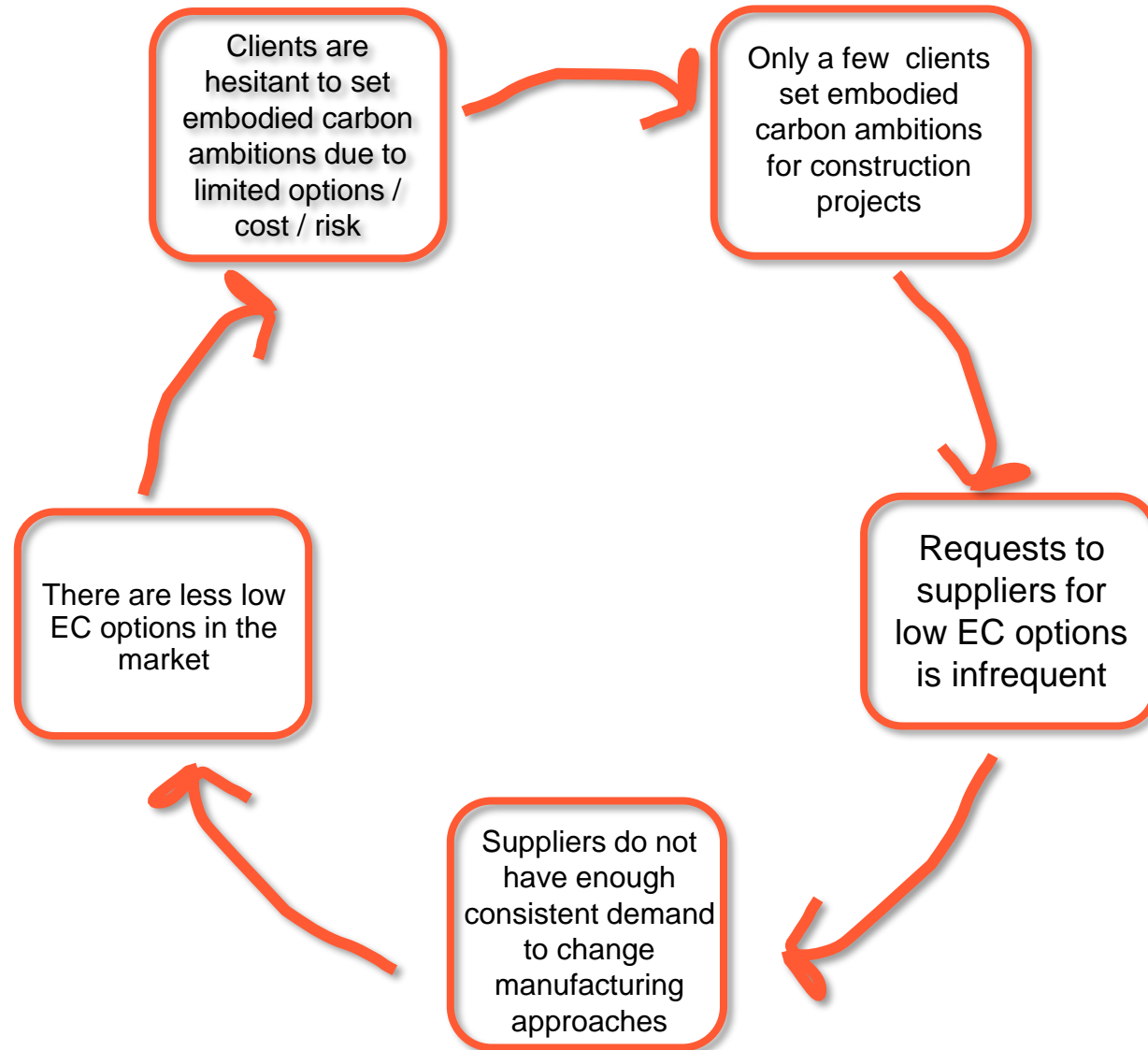
Pledge Pre-requisite Policy

A proposal for policy makers to consider to drive demand for low embodied carbon materials

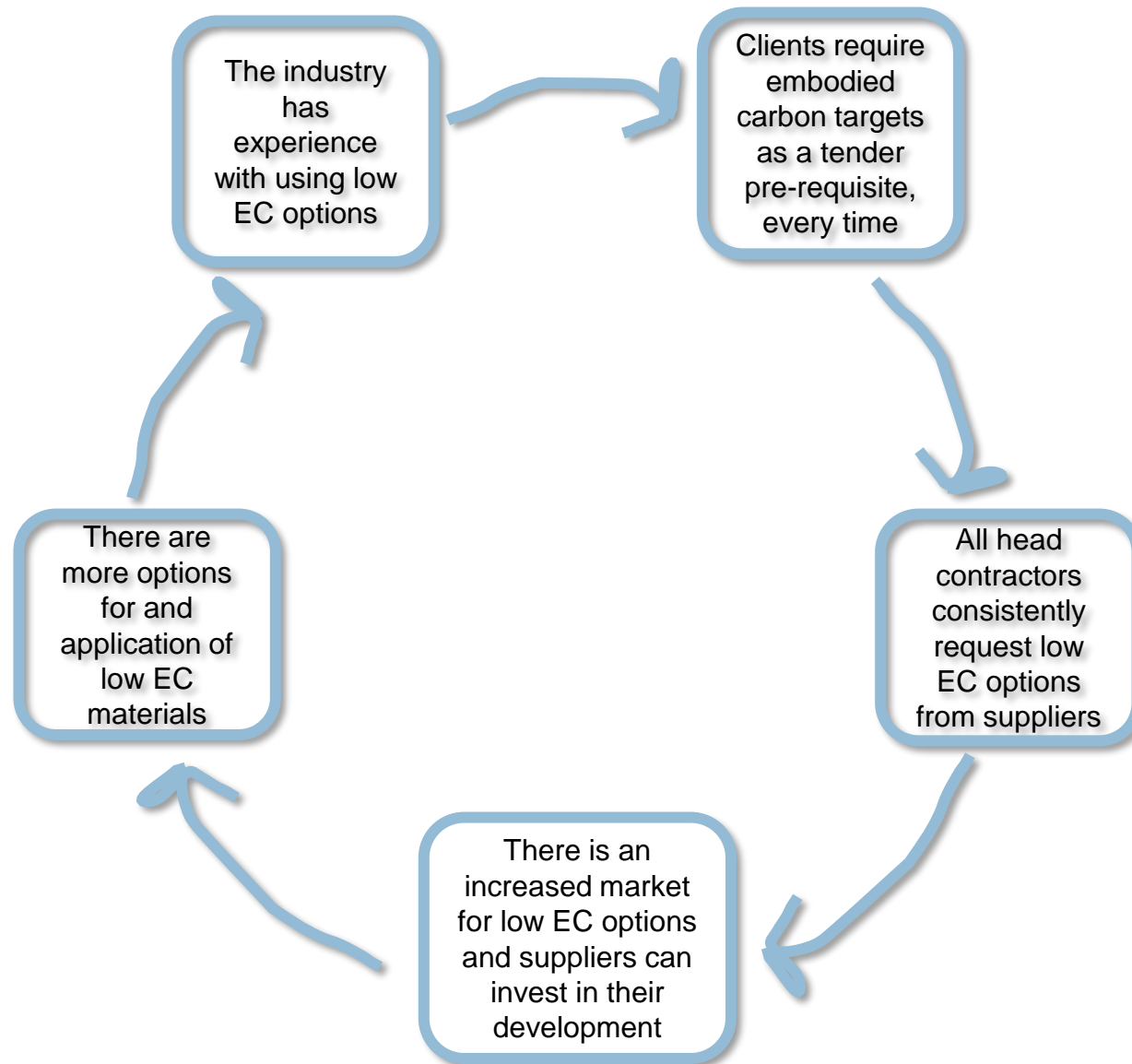
Prepared by members of MECLA

March-December 2022

The challenge – ensuring a consistent ask



'The Pledge' seeks to drive consistent demand



Pledge Pre-requisite Policy proposal on a page

*PROPOSED: Require **head contractors to set and monitor a publicly available target to reduce embodied carbon in building materials as a pre-requisite to be able to tender for Govt work from mid 2024.***

...head contractors.....

The target applies to the head contractor's **total organisation** (not just a project) to drive demand and simplify assessment of compliance with the pledge pre-requisite.

The head contractors are organisations engaged by Govt to deliver construction work – buildings and infrastructure

...set and monitor a publicly available....

The target and progress against it must be **publicly available** in an **accessible place** such as website, annual report, sustainability report or similar by choice of the head contractor.

Compliance with the pre-requisite is in the form of a **link** to the publicly available target; additional forms / documents /evidence are not required.

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.

...to tender for Govt work.....

The pledge applies to the **entity** that is being engaged – it is not a requirement for their subsequent suppliers, eg: govt asks head contractor to have public commitment but head contractor can decide if they pass this on to their suppliers.

...target to reduce embodied carbon in building materials.....

The target must aim for the **reduction** of **embodied carbon** emissions in construction materials and projects (ie: for head contractors, this is a **Scope 3** target). Scope 1&2 targets are desirable but not the focus of this pledge as scope 3 emissions to date have been under-emphasised despite their significant scale.

NOTE: The pledge 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 EC reduction strategy and will not drive industry change as quickly as an emissions reduction focus may.

The target can be **any form of SMART target** that the head contractor organisation prefers. Science based target methodology is **desirable** as a sound base for setting embodied carbon targets; this approach is **optional**. Organisations can choose **targets that work** for their scale and level of experience. The aim is for **consistent**, wide reaching focus on embodied carbon and for it to be practical for ANY head contractor to participate. Even a simple target is a step in the right direction and sends a market signal.

In its early stages of introduction, the Govt agencies are encouraged to use the pledge as a **'pass/fail'** requirement for tender; they may in time choose to rank or assess tenders on the quality of their pledge. The first step is to **build the habit** of consistently having a pledge.

The pledges may sit across a maturity scale....

Starting Out

A target focused on a key material or basic aim an entity is confident in achieving

EG: 'We pledge to use 20% cementitious replacement in all concrete mixes used'

Progressing Well

A modest all of organisation target

EG: We pledge to reduce our upfront scope 3 emissions by 10% by 2030

Leading the Pack

A science based all of organisation target

EG: We pledge to be a 1.5 degree aligned company and reduce our upfront scope 3 emissions aligned to science based targets

Ideally, a head contractor embodied carbon pledge would:

- Provide a measurable, time based objective
- Demonstrate an understanding of / focus on the most significant sources of upfront Scope 3 emissions for the organisation
- Include a plan for how the target will be achieved
- Leverage industry / supplier collaboration

Key to the success of the pledge....

Guidance to Head Contractors

Tips, examples and key things to avoid when setting embodied carbon targets - MECLA is able to prepare and publish such guidance. This will be important given the varied levels of carbon maturity within Head Contractors.

Broader consultation

While MECLA members have been consulted in the preparation of this proposal, we are aware our members are only a representation of the sector. Tier 2 and 3 contractors for example are not in our membership. Normal industry engagement as typically applied for policy changes is recommended.

Use of trusted methodologies

It is recommended policy makers encourage and preference the use of targets that leverage trusted embodied carbon methodologies and initiatives to provide assurance to claims made.

Pledge FAQ

1. How was the Pledge idea developed?
2. Why was it chosen as a preferred idea?
3. Why is this a good policy idea?
4. Why has the Pledge idea been applied at a whole of organisation level not project?
5. Why is the Pledge recommended from 2024?
6. Why have carbon neutral products / offsets suggested to be excluded from the Pledge?
7. How will agencies assess compliance with the Pledge?
8. Should the Pledge be assessed as part of tender selection?
9. How onerous will it be for head contractors to adopt the Pledge?
10. Who has been consulted in developing the Pledge idea?
11. What feedback was received and what happened with this feedback?
12. What role would MECLA play if the Pledge is adopted?

1. How was the Pledge idea developed?

Four groups were identified as highly influential in driving demand for low EC: Policy makers, Govt clients, non Govt clients and designers. Over 100 ideas for inspiring these groups to be 'more demanding' were rationalised to a top 13. These 13 were tested and voted on by MECLA members and in NSW Govt forums. Four emerged as top priorities, including the Pledge. A subgroup was formed to develop the Pledge concept with iterations further tested across the MELCA members.

2. Why was it chosen as a preferred idea?

The Pledge was selected for two primary reasons: the ability of MECLA to influence its adoption and for its simplicity. The Pledge is simple because it does not rely on a measurement methodology to be agreed (a current topic of industry debate) and allows organisations to match ambition to their EC maturity and communicate without complex reports.

3. Why is this a good policy idea?

The strengths of the Pledge concept include:

- organisations have **choice**: they select their own pledge and hence can align to their maturity / scale / experience etc
- It is a **gentle** way to introduce ALL organisations to EC ahead of likely more complex future expectations, it helps prepare them for a low carbon future
- A consistent application **increases the demand** for low EC products and makes investment in innovation more viable with all head contractors focused on EC
- It is **easy to administer** with 'evidence' being existing published info

4. Why has the Pledge idea been applied at a whole of organisation level not project?

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 EC 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 organisational wide target as these are likely to be published on websites etc (over a project target)

5. Why is the Pledge recommended from 2024?

If an organisation does not already have a target to reduce EC, it is likely to take 12-18 months for the organisation to learn about EC and agree an appropriate target. Providing some warning will allow organisations time to set meaningful, considered targets.

6. Why have carbon neutral products / offsets suggested to be excluded from the Pledge?

While the use of offsets are an important interim step in addressing global warming, our ultimate ambition is the elimination of emissions from materials manufacturing all together. Allowing carbon neutral products to be included in the targets masks the performance against absolute carbon elimination and may reduce the incentive to transform manufacturing.

7. How will agencies assess compliance with the Pledge?

It is recommended organisations 'prove' they have a publicly available pledge to reduce EC by simply providing a link to where this target and progress against it is published (eg: 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.

8. Should the Pledge be assessed as part of tender selection?

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

9. How onerous will it be for head contractors to adopt the Pledge?

The Pledge 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 pledge, rather than having a set EC 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.

10. Who has been consulted in developing the Pledge idea?

All MECLA members have been consulted in the formation of the Pledge. Specific sessions were held with MECLA representatives from head contractors (largely tier 1) and materials supplier organisations. Several state Govt agencies and the APCC have been presented to. Agencies keen to adopt the pledge are encouraged to conduct further consultation.

11. What feedback was received?

Overall MECLA members have been supportive of the Pledge concept, specifically its flexibility for head contractors to choose their own EC 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 EC 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 Govt too would make pledges to reduce their own EC.

12. What role would MECLA play if the Pledge is adopted?

Should Govt agencies adopt the Pledge, MECLA would be happy to provide guidance and support to organisations yet to establish EC reduction targets. MECLA has already commenced the preparation of a 'how to set an EC 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.