

12 May 2023

Infrastructure Victoria
Level 33
140 William Street
Melbourne, Victoria 3000

Via Infrastructure Victoria website

SUBJECT: ADVICE ON OPPORTUNITIES TO REDUCE GREENHOUSE GAS EMISSIONS OF VICTORIAN GOVERNMENT INFRASTRUCTURE

Cement Concrete & Aggregates Australia (CCA) welcomes the opportunity to provide a submission to Infrastructure Victoria.

CCA is the peak industry body for the heavy construction materials industry in Australia including the cement, pre-mixed concrete, and extractive industries. Our members operate cement distribution facilities, concrete batching plants, hard rock quarries and sand and gravel extraction operations throughout Victoria.

CCA members nationally account for 80% of total industry output, with the industry generating \$15 billion per annum in revenue, employing 30,000 Australians directly and supporting the employment of a further 80,000 people. CCA members produce and supply the heavy construction materials that are used to construct Victoria's infrastructure. Providing both the raw material and finished product, heavy construction materials contribute to the construction of our homes, roads, railways, bridges, ports, airports, hospitals, and schools.

CCA's members service local, regional, and national building, construction and infrastructure markets. The reliable and cost-effective supply to these markets is fundamental to sustainable growth and it is CCA's aim to promote policies that recognise the importance of these materials to Victoria's sustainable future.

CCA, in partnership with CIF (Cement Industry Federation) commissioned VDZ, a consultancy with concrete expertise, to provide a report on the pathways for the Australian cement and concrete sector to decarbonise. The report can be read on the [CCA Website](#).

Advice on opportunities to reduce greenhouse gas emissions from Victorian Government infrastructure is as follows.

1: Opportunities to identify, prioritise, quantify, incentivise, and track reductions in embodied, operational and enabled infrastructure emissions at early strategic planning and investment decision making stages including business case assessment.

- Include carbon estimates in tender requirements.
- Promote the use of Environmental Product Declarations (EPDs) in the planning phase. Assist concrete companies that do not have EPDs by including it as an obligation for successful tenders. CCA's EPD assistance is available for all concrete companies.
- Promote projects that have used lower carbon cements.



- Optimise specifications, that specify amounts of Portland cement, to promote use of Supplementary Cementitious Material (SCM). Move to performance-based specifications.
- Incentivise the transition to alternative fuels, including electric heavy vehicles, trucks and yellow fleet.
- Include EV charging infrastructure in VEECs.
- Promote Power Purchase Agreements
- Specify use of recycled materials over natural resources.
- Improve the exemption process for lower carbon concrete. Remove the need to apply for an exemption each time a lower carbon concrete is used.
- Take a whole of life approach to planning, design and carbon estimates.
- Reward design that optimises materials and their use to reduce carbon.
- Collect information progressively, linked to milestone payments.

2. Options to update the Victorian Government's existing investment guidelines, procurement policies, regulatory tools, standards, frameworks and/or guidelines to reduce emissions.

- Include embodied carbon and operational carbon in tender submissions, EOIs and RFTs.
- Support the use of EPDs by promoting CCAAs EPD service.
- Remove specification barriers to using recycled aggregate.
- Examine concrete specifications used by Victorian infrastructure and engage the cement and concrete industry in modifying them to allow lower carbon concretes and innovative products.
- Support local supply chains where decarbonisation is evident on a whole-of-life basis.
- Measure more categories of masonry to landfill. This would allow for a better understanding of how much concrete is being disposed of rather than reused.

3. Innovative approaches that the Victorian Government can use to incentivise private industry to increase production and adoption of low-carbon materials and/or methods in procurement.

- Provide case studies of infrastructure that has successfully used lower carbon products. Provide helpful tips on how to plan to use the product, benefits, and cautions.
- Include heavy machinery transition to alternative fuels, including EV by including them in the VEEC scheme.
- Include measuring Scope 3 emissions in projects.

4. Enablers and barriers to implementation of any recommendations and their ramifications for reducing the emissions of infrastructure delivery, increasing productivity and reducing costs. This could include any impacts on costs and benefits, and how these could be equitably distributed across stakeholders and over the life of infrastructure.

- Support changing Australian Standard AS3972, Portland and Blended Cements, to increase the limestone content of General Cement (GP) and including other SCMs and pozzolans cements with the same performance as GP. This change in Australian Standard would promote suppliers to increase the amount of limestone in their cement. This would become

the industry standard. When it is fully utilised the change would save 10% of the embodied carbon in concrete.

- Lower carbon cements don't respond exactly the same as GP. Feedback from the placers and contractors is that time to cure and workability don't align with expectations. Lower Carbon concretes are relatively new and require more supervision and attention to detail while learning how to use them. The impact of a poorly managed concrete pour can be an issue, and some parts of the supply chain are risk adverse.

The impact of low carbon concrete on construction cycle times needs to be understood.

Training/information across the supply chain on how to use lower carbon cement is needed.

Utilising contractors that have successfully used low carbon concrete to provide guidance on the best approach/es.

- Champion the use of and access to recycled products. The use of recycled products in concrete reduces the need for natural resources and the carbon emissions. The supply chain would benefit from greater visibility of where recycled product is available, quantity, quality and frequency.
- Provide grants and funding for publicly accessible tools for carbon management.

5. Timing and stages to implement options for the best long-term outcomes which minimise transitional costs for the government, the industry and the community.

- Now is the time to update AS3972. Changes have been proposed and are in review. Support from the Victorian Government on the necessity of this change would improve the likelihood of achieving a national lower carbon cement standard.
- Carbon from infrastructure development can be measured and should be estimated using the best possible data at the planning stage using standard methods, in tenders and as part of procurement. All future projects should have a LCA.
- Engage the whole construction supply chain, as soon as possible, to facilitate a whole of industry change. Lower carbon concrete use will be more successful if all stakeholders are consulted.

The cement and concrete industry look forward to continuing to work with the Infrastructure Victoria and the Victorian Government on decarbonisation.

There is no more important time than now for the construction sector, supported by an efficient heavy construction materials supply chain, to enable a sustainable Victorian economy and create jobs.

Please do not hesitate to contact me to discuss any of these issues in more detail.

Yours sincerely



