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Via: <https://www.infrastructurevictoria.com.au/project/advice-on-opportunities-to-reduce-greenhouse-gas-emissions-of-victorian-government-infrastructure/>

Dear [REDACTED]

Re: Advice on opportunities to reduce greenhouse gas emissions of Victorian government infrastructure

Green Building Council of Australia (GBCA) welcomes the opportunity to provide input into the Victorian Government's strategy to reduce greenhouse gas emissions for future public infrastructure.

As Australia's largest voluntary and truly holistic sustainability rating system for buildings and communities, GBCA's Green Star can help guide Infrastructure Victoria in setting sustainability requirements. Green Star also supports procuring agencies and project teams to set ambitious sustainability targets and then to verify that they have been delivered and the objectives of the strategy have been met.

GBCA's purpose is to lead the sustainable transformation of the built environment. We do this primarily through our core functions:

- We rate the sustainability of buildings, fitouts and communities through Australia's largest national, voluntary, holistic rating system – Green Star.
- We educate industry, government practitioners and decision-makers, and promote green building programs, technologies, design practices and operations.
- We advocate policies and programs that support our vision and purpose.
- We collaborate with our members and other stakeholders to achieve our mission and strategic objectives.

Green Star is Australia's most widely used sustainability rating system for the design, construction and performance of buildings – including social infrastructure – fitouts and communities. Green Star aims to transform the built environment by:

- reducing the impact of climate change
- enhancing our health and quality of life
- restoring and protecting our planet's biodiversity and ecosystems
- driving resilient outcomes for buildings, fitouts, and communities
- contributing to market transformation and a sustainable economy.

We acknowledge the ongoing large-scale investments in infrastructure across states and territories in Australia and we are very encouraged to see the growing momentum for reducing embodied carbon in our built environment. GBCA has worked with Infrastructure WA, Infrastructure NSW and the Queensland Government on similar considerations regarding embodied carbon in infrastructure planning, procurement and delivery and we would welcome the opportunity to support Infrastructure Victoria and the Victorian Government in this area.

We provide our comments and recommendations for the specific points raised in the Terms of Reference below:

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.

Factoring in the embodied, operational and enabling infrastructure emissions in the early planning, decision making, and business case development phases is a critical step in reducing and/or avoiding embodied carbon emissions in infrastructure delivery. Infrastructure Victoria should:

- Commit to requiring and achieving best practice design on all infrastructure projects, supported by third-party certification. Wherever possible, robust, independent ISO certified rating tools such as Green Star should be integrated into the planning and delivery of new infrastructure. The importance of independent certification in ensuring the sustainability and resilience of new infrastructure projects cannot be underestimated. By requiring certification as part of the standard process for delivering new infrastructure, Infrastructure Victoria can be sure that its projects are meeting the high standards of sustainability that will help to ensure infrastructure remains resilient and fit-for-purpose over the coming decades.
- Review business cases against place-based outcomes, risk frameworks and indicators and assess the need for projects based on clear vision and effective community engagement.
- Ensure that business cases and infrastructure decisions are held to account through regular reporting, assessment against clear statements of vision, objectives, state and regional integrated land use plans.
- Embed project evaluation and benefits realisation within decision making processes as a condition of funding and as a core component of project scoping.
- Ensure that lessons learned from project evaluation processes are embedded into considerations for future projects.

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

While Green Star is primarily focused on rating buildings, there are many aspects of the rating tools that may be useful references for larger infrastructure delivery. We invite Infrastructure Victoria to consider Green Star-certified projects as examples of ways in which these actions can be embedded in project planning and delivery.

Green Star has always recognised and rewarded projects which consider reuse of existing structure, façade and materials, and the use of responsible/recycled materials. In 2021, GBCA updated [A climate positive roadmap for the built environment](#), which sets a trajectory for Green Star to ensure that all buildings and communities certified with the rating tool will ultimately become climate positive. The targets for embodied carbon in new buildings are a 40% reduction in embodied carbon by 2030, and zero embodied carbon by 2050. Green Star Buildings was the first Green Star rating tool to be updated and redesigned in line with the roadmap, but new versions of all Green Star rating tools will be released over the next several years.

Green Star Buildings rewards reduced embodied carbon through several credits. The Reducing Upfront Carbon Emissions credit has been introduced as a minimum requirement. The life cycle impacts credit rewards projects that consider the resource impacts over the whole lifespan of a building.

The Green Star Buildings submission guidelines also provides guidance on the stage of the project when credits should be considered – for example, strategy, brief, concept, design, tender and construction to encourage project teams to examine considerations such as embodied carbon as early as possible.

We encourage Infrastructure Victoria and the Victorian Government to consider the full range of circular economy principles and benefits in the development of the proposed actions and outcomes. GBCA is committed to working with government and industry stakeholders such as

NABERS, Circular Australia, Materials and Embodied Carbon Leaders Alliance (MECLA) and Property Council of Australia to progress circular economy outcomes and consideration of embodied carbon. We note a project we are currently leading on behalf of the South Australian (SA) government to identify opportunities and barriers for advancing a circular economy in the built environment. A report with recommended actions for the SA Government, industry and academia will be released in June. We encourage collaboration with these stakeholders and others wherever possible to advance progress in this area.

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.

Government procurement is a powerful tool for positive change in the supply chain. An agreed, consistent approach to valuing embodied carbon reduction in infrastructure delivery sends a clear message to industry and creates certainty for the supply chain. Including consideration of, and targets for embodied emissions as a weighted criteria in procurement process is one way that governments can encourage industry to increase the focus on embodied emissions. GBCA recommends allocating a percentage weighting to tender evaluations to encourage greater focus on embodied emissions reductions in tender proposals. This will in turn, lead to increased investment in supply of low emissions products and materials.

Developing minimum requirements and/or targets for embodied emissions in the tender process will encourage sustainability considerations to be integrated from the earliest stages of project planning. Plans to require regular reporting against these requirements will keep all parties accountable and should help to identify any challenges and barriers as early as possible.

Over the past 20 years, Green Star has played an instrumental role in driving the demand and supply of sustainable building products in Australia. We are committed to doing even more to help transform the supply chain so that it delivers transparent, healthy, low-impact, and net zero carbon products that are part of a circular economy. GBCA is currently enhancing its Responsible Products Framework that outlines criteria for scoring how 'responsible' a product is, and to support the built environment industry in adapting to and driving this change.

Credits within Green Star include Responsible Procurement, Responsible Structure, Responsible Envelope, Responsible Systems, and Responsible Finishes and Leadership Challenges within Green Star that focus on circular economy and responsible products reward projects that go above and beyond current Green Star benchmarks.

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.

A fundamental barrier to reducing embodied carbon is a failure to properly value it in the business case for any project. GBCA commends the Department of Treasury and Finance and Infrastructure Victoria for developing the advice to reduce greenhouse gas emissions through investments in infrastructure investments. Many within industry and government have been calling for consistent cost benefit analysis and business case processes to better consider carbon and mitigation efforts.

The New South Wales Government, with the help of GBCA and other key industry stakeholders, is progressing the development of an embodied carbon tool through the NABERS program. Once completed, we encourage a nationwide adoption of the tool, integrating it into construction projects.

Policy implementation and delivery of projects will be impacted by industry capacity to meet demand. Identifying the skills and knowledge gaps and creating pathways for professional development, training and resources will be critical for ensuring agencies can address gaps in capability, as well as other barriers to decarbonising infrastructure delivery.

Over the past 20 years, GBCA has played a key role in educating the industries of the built environment on sustainability. In 2021, in partnership with thinkstep-anz, GBCA released

[Embodied carbon and embodied energy in Australia's buildings](#). This report calculates embodied carbon and embodied energy in Australia's commercial and residential buildings. It compares the 2019 baseline year to a 2050 business-as-usual scenario to show what could happen without deliberate action on embodied emissions.

We have also delivered a range of education and training opportunities related to understanding and reducing embodied carbon. We currently offer an Embodied Carbon Masterclass and would welcome the opportunity to work with Infrastructure Victoria to provide training opportunities for Infrastructure Victoria staff and others within the Victorian Government, as well as industry.

GBCA supports the ongoing collaboration between key government agencies and industry to build skills and capacity. We welcome the opportunity to play a role in bringing together stakeholders and in sharing experience and knowledge to raise the collective capacity of the whole industry.

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.

While recognising reducing greenhouse gas emissions in Victorian public infrastructure will be highly reliant on the market readiness for materials, technology and labour force capacity, as outlined above, government has a critical role to play in supporting and driving market readiness. GBCA supports an early commencement date with a reasonable transition period supported by ongoing, clear communications to all stakeholders. The commencement date and transition period should be aligned with the Victorian Government's commitment to emission reductions from 2005 levels by 75 to 80 per cent by 2035 and net zero greenhouse gas emissions by 2045.

GBCA welcomes the opportunity for further consultation. To arrange further discussion or for additional clarification of the points made in this submission, please do not hesitate to contact [REDACTED]

Yours sincerely

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