

Why decarbonising matters to Infrastructure

1 MAY 2024

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EXECUTIVE SEARCH & LEADERSHIP CONSULTING

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INFRASTRUCTURE
VICTORIA

Reducing greenhouse gas emissions of infrastructure

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A wide-angle photograph of the Melbourne skyline at dusk or dawn. The Yarra River flows through the foreground, with a large stone bridge crossing it. The city's skyscrapers are illuminated by the low sun, creating a warm glow. The sky is a clear, pale blue. The text 'Acknowledgement of Country' is overlaid on the left side of the image in a large, dark brown serif font.

Acknowledgement of Country

Image: Birrarung (Yarra River) flows through Naarm (Melbourne), the water and lands of the Wurundjeri Peoples and Infrastructure Victoria acknowledges them as Traditional Owners.

Advice on decarbonising infrastructure

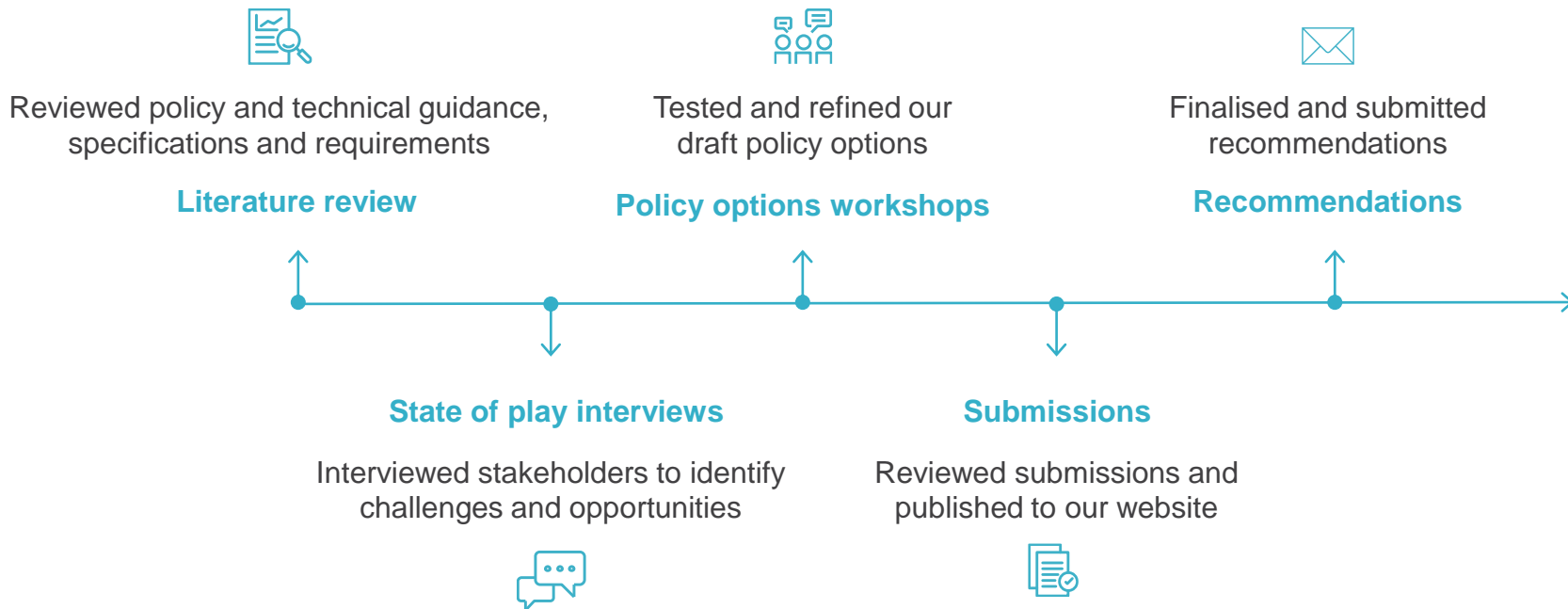
The Victorian Government asked Infrastructure Victoria for advice on options to help reduce greenhouse gas emissions caused by future infrastructure investment.

Considerations:

- options to reduce greenhouse gas emissions
- opportunities to reduce costs and/or increase productivity
- ability to influence emissions reduction by private firms.



Method



Why decarbonising infrastructure matters



Climate change threatens Victoria's future.



Up to 70% of Australia's annual emissions are attributed to infrastructure.



New infrastructure projects consume enormous amounts of energy and materials.



Pressure on the construction and materials industry to decarbonise is increasing.



Reducing carbon emissions from infrastructure can lead to cost savings and improve productivity.



Using recycled materials and digital engineering tools can contribute to significant carbon and cost savings and benefit the economy.

Benefits of decarbonising infrastructure

Carbon is a proxy for materials and energy consumed in building infrastructure

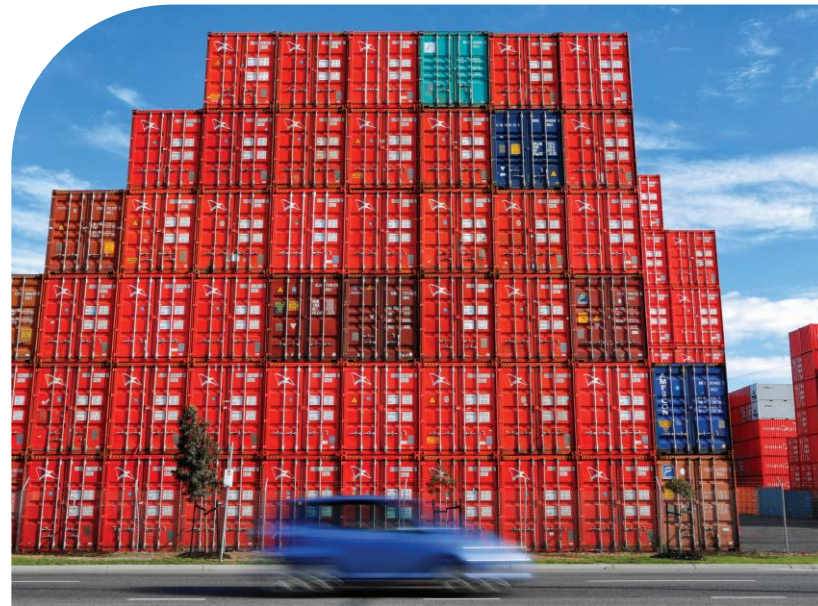
- Reducing carbon can support reduced costs – less material is less costly.
- Decarbonisation encourages innovation and support technologies like digital engineering.
- Carbon reduction can bring new jobs and industry opportunities.



What are other jurisdictions doing?

International standards, regulations, tariffs and capital markets are aligning to drive carbon reduction

- The UK's 'PAS 2080 Carbon management in buildings and infrastructure standard' is globally recognised.
- The EU and USA are implementing carbon tariffs and policies.
- International Sustainability Standards Board new standards require public reports on climate-related risks.
- Clear guidance on reducing infrastructure emissions can support Victorian companies.



Our findings: the priorities for change

Victoria needs an integrated approach to manage carbon emissions over the infrastructure lifecycle

- Carbon emissions reduction is often overlooked to meet cost, quality and time requirements.
- The Victorian Government's emissions reduction targets and policy statements have not yet clearly been translated into project decisions.
- Carbon reduction practices, tools and resources are being deployed, but they are inconsistent and uncoordinated.
- Non-build and low-carbon solutions are being considered in Victoria, but their prioritisation varies across and often occurs too late.



Our findings: the priorities for change

Leadership, clarity and consistency can support emissions reduction

- The carbon of infrastructure is not being considered.
- Procurement guidelines do not have clear targets.
- Contracts are awarded without considering carbon reduction opportunities.
- Department and agency staff are at an early stage of understanding how to reduce carbon emissions.
- Staff need consistent and transparent ways to quantify, value, monitor and track carbon emissions.
- Concerns over resource pressures of complying with extra decarbonisation requirements.
- Industry stakeholders want clear and consistent decarbonisation guidance.



Overarching principles

Three overarching principles should guide decarbonisation efforts in Victoria:

- ⊗ Prioritise no or low build
- 📄 Align approach
- 🕒 Commit to timelines



Recommendations: carbon management



1. Adopt a carbon management standard like PAS 2080:2023 Carbon management in buildings and infrastructure to measure and manage carbon emissions and modify as needed to embed in Victoria.



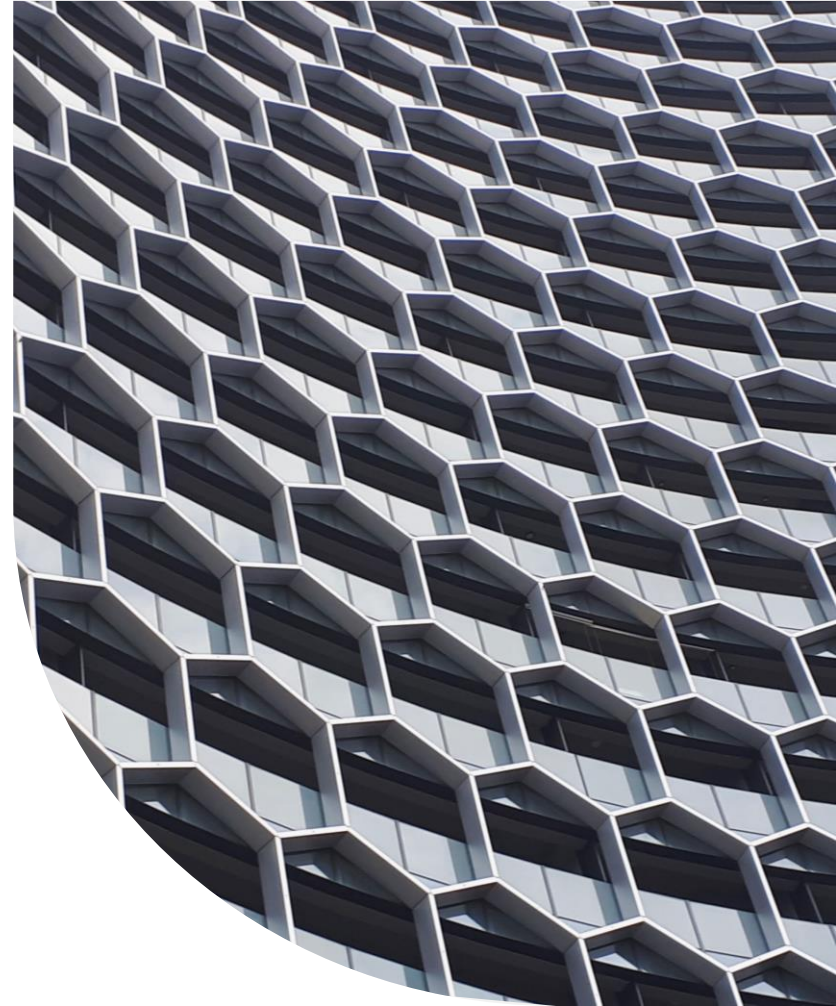
Recommendations: foundational



2. Implement the same carbon measurement approach as New South Wales and deliver training across the Victorian Government.



3. Initially adopt a carbon value of at least \$123 per tonne and then update to reflect values required to achieve Victorian emissions reduction targets.



Recommendations: business cases



4. Update business case guidelines and templates to integrate emissions reduction.



5. Measure carbon in infrastructure cost benefit analysis and make decisions that reduce emissions.

Recommendations: procurement and delivery



6. Update procurement frameworks and guidance to embed carbon reduction in tenders.



8. Establish carbon management prequalification requirements for government contracts.



7. Update standard form contracts to include carbon reporting, abatement requirements and further carbon reduction opportunities.



9. Support industry to develop zero or low emissions solutions by testing alternative materials and adopting performance-based standards.



Recommendations: assurance



10. Update assurance processes to include consideration of carbon emissions.





Questions & Answers

Moderator

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Presenter

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Thank you

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