



# **Sustainable Procurement** **Reducing embodied carbon** **through procurement**

**Partner Briefing Session 16/03/2023**

Chair: Davina Rooney CEO GBCA  
Project Leader: Associate Professor Yingbin Feng WSU



**Sustainable  
Built Environment**  
National Research Centre  
AUSTRALIA



How was the project proposal informed?

# Sustainable Procurement Theme



SBEncr P2.76  
**Sustainable Procurement**  
2020-2022 (completed)

SBEncr P2.86  
**Developing Sustainable and Resilient Supply Chains**  
2021-2023 (ongoing)

# SBEnc National Industry Research Workshops





There's probably not enough collaboration between government, industry and research  
---- Philip de Beukelaar

Cost implications and budgeting perspective; create mechanisms for supply chain to deliver social housing.  
---- Aaron Dove

Sustainable procurement as enabler for circular economy. Specific barriers to circular business models being procured.  
---- Emily Gentilini

Procurement contract management is a really interesting space. I'm very open to supporting whatever project gets up.  
---- Rendell, Haidon

Scope 3 is where we need to put the effort in and that goes straight into the supply chain.  
---- John Clifton



There are some pretty big low hanging fruit opportunities in how buildings are designed and specified. There is a massive labour shortfall at the moment.  
---- Luke Rowlinson

If we're able to support procurement managers, procurement professionals and the supply chains and know how to get in there at that early phase  
---- Rhys D Owen-Roberts

We're finding procurement can make the most influence.  
---- Dominique Holani

It was a small proportion to change the way things are done, there's a lot more social impact and outcomes for.  
---- John Perry

It's quite difficult to assess the carbon footprint for different products in an easily and reliable way. Need to engage both supply and demand side to get all parties to agree  
---- Greg Ryan



This is really moving to a more mature industry perspective of unpacking some of the intercompany issues in the procurement scale. How we actually deliver those as value on projects and how we standardise elements.

---- Davina Rooney



I'm particularly interested in the barriers which are preventing more sustainable, more sustainable manufacturing and the materials that are used in the building and construction sector and how that sector emerges.

---- John Clifton



There's obviously a big opportunity around upskilling procurement professionals and people who you know are at the sort of the forefront of engaging in the supply chain.

How to breakdown barriers to implementation and innovation perspective and new materials.

---- Rhys D Owen-Roberts



How do we give the market sort of the power to bring us some alternatives and bring us some change and some innovations.

How do we actually assess that and evaluate that through the procurement process.

---- Aaron Dove



The acceptance of innovative sustainable materials into building material supply chain to make a difference.

Need to improve collaboration between government, industry and research.

---- Philip de Beukelaar





# Timeline of key opportunities



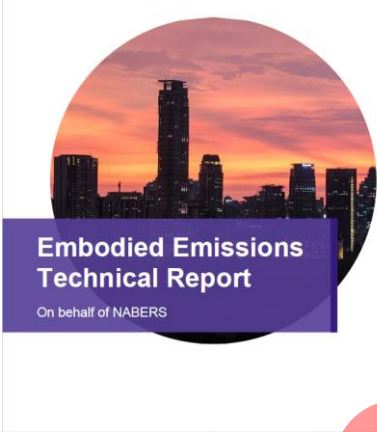
- Sustainable Building SEPP
- Infrastructure NSW Commitments

AUG-OCT 2022



- NABERS draft technical documents for public consultation

DEC 22



APR 23



- GBCA embodied carbon modelling guide

MAY 23



- Globally aligned product directory
- Future harmonised regulation

FUTURE NEEDS

Australian buildings and infrastructure: Opportunities for cutting embodied carbon



Industry report



Prepared for: Supported by:

**Embodied emissions**  
Consultation paper

NABERS

NABERS is administered by the NSW Office of Energy and Climate Change  
Published December 2022

MAR 23

- GBCA practical guide to upfront carbon emissions



**Upfront Carbon Emissions calculation guide – interim**  
Guidance on calculation methods for the Upfront Carbon Emissions and Life Cycle Impacts credits

Interim Version 1  
2 December 2022

Green Building Council Australia

Building a sustainable future

JUL 23

- NABERS framework will be available for pilot projects
- Final standard target December





# Industry Challenges

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- Huge potential and need to cut embodied carbon
- Uptake of low carbon materials and innovations
- Complex value chains and multiyear change
- Tendering and procurement barriers





# SBEnc Innovation Cycle





# Project overview

- aim
- objectives
- proposed case studies

# PROJECT AIM

Drive reductions of embodied carbon in the Australian built environment by leveraging organisations' purchasing power and improving their procurement processes and practices.

Embodied carbon

Built environment

Procurement





# PROJECT OBJECTIVES



- 1** To examine the pathways for improving tendering and procurement practices to reduce embodied carbon.
- 2** To understand supply chain emission landscape and determine embodied carbon reduction baselines and targets
- 3** To develop procurement criteria and checklist against embodied carbon reduction targets and legal obligations while maintaining the value for money outcome
- 4** To develop guidelines for updating procurement documents including contracts to include embodied carbon reduction and incentives clauses

# Case study 1



Theme of case study	Challenges to be addressed	Prospective partners	Expected outcomes for partners
<p><b>Case study 1 (Linked to Objective 1)</b></p> <p>Positioning procurement function to support achievement of decarbonisation goals.</p>	<p>What is the role of procurement in achieving a company's ESG ambitions?</p> <p>How can procurement be organised and positioned in a company to support achievement of decarbonisation goals?</p>	<p>BGC</p> <p>DevelopmentWA</p> <p>QLD Government</p> <p>NSW Government</p> <p>VIC Government</p> <p>... ..</p>	<p>Review of best practices</p> <p>Improved internal governance</p>

# Case study 2



Theme of case study	Challenges to be addressed	Prospective partners	Expected outcomes for partners
<p data-bbox="71 748 524 848"><b>Case study 2 (Linked to Objective 2)</b></p> <p data-bbox="71 919 563 1133">Understanding supply chain emission landscape and determining carbon reduction targets.</p>	<p data-bbox="682 719 1174 819">Where are your supply chain emission hotspots?</p> <p data-bbox="682 891 1166 1105">How to determine your carbon reduction targets considering your supply chain landscape?</p>	<p data-bbox="1307 582 1411 619">ATCO</p> <p data-bbox="1307 696 1396 733">BGC</p> <p data-bbox="1307 811 1651 911">Department of Communities WA</p> <p data-bbox="1307 982 1651 1019">QLD Government</p> <p data-bbox="1307 1096 1663 1133">NSW Government</p> <p data-bbox="1307 1210 1633 1248">VIC Government</p> <p data-bbox="1307 1290 1386 1310">... ..</p>	<p data-bbox="1931 719 2364 819">Supply chain emission landscape</p> <p data-bbox="1931 891 2377 928">Prioritisation of efforts</p> <p data-bbox="1931 1005 2440 1105">Realistic carbon reduction targets</p>

# Case study 3



Theme of case study	Challenges to be addressed	Prospective partners	Expected outcomes for partners
<p><b>Case study 3 (Linked to Objective 3)</b></p> <p>Designing realistic supplier selection criteria and checklist against carbon reduction targets and legal obligations while maintaining value for money tender outcome</p>	<p>How to design your supplier selection criteria against carbon reduction targets and legal obligations?</p> <p>What questions need to be asked for suppliers at pre-selection stage?</p> <p>How to tailor the questions for different suppliers?</p>	<p>Main Roads WA</p> <p>ATCO</p> <p>Department of Communities WA</p> <p>QLD Government</p> <p>NSW Government</p> <p>VIC Government</p> <p>... ..</p>	<p>Supplier selection criteria</p> <p>List of questions for suppliers</p> <p>Customised checklist for different suppliers</p>

# Case study 4



Theme of case study	Challenges to be addressed	Prospective partners	Expected outcomes for partners
<p><b>Case study 4 (Linked to Objective 4)</b></p> <p>Updating procurement documents including contracts to include carbon reduction and incentives clauses.</p>	<p>How can contracts be updated to enforce carbon reduction commitments in tenders?</p> <p>How can incentives attached to carbon reduction commitments be embedded in procurement documents including contracts?</p>	<p>DevelopmentWA</p> <p>ATCO</p> <p>Main Roads WA</p> <p>Dept Communities WA</p> <p>QLD Government</p> <p>NSW Government</p> <p>VIC Government</p> <p>... ..</p>	<p>Sample contract clauses</p> <p>Improved contract model and contract renewal</p>





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WESTERN AUSTRALIA



Queensland  
Government



WESTERN SYDNEY  
UNIVERSITY





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