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INDUSTRIAL DEEP DECARBONISATION

AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

The role of green public procurement in industrial decarbonisation

SUMMIT ON SUSTAINABLE CONSTRUCTION

14 JANUARY 2025



THE CEM INDUSTRIAL DEEP DECARBONIZATION INITIATIVE

- Large and diverse **coalition** of governments and private sector, academia, civil society



- Create an **enabling environment** for deep decarbonisation of heavy industry, with a focus on steel and cement production
- Leverage **public procurement commitments** to create early markets for low-emission products (starting with steel, cement and concrete)
- **Emissions accounting** and **definitions for low/near zero emission products** are a key enabler for policy makers, producers and procurers

WHY GREEN PUBLIC PROCUREMENT?

- Public procurement accounts for **13 - 20 per cent** of global GDP¹
- **20 - 30 per cent** of global construction revenues come from purchases by public entities
- Governments are **top buyers** of **concrete and steel** for major infrastructure projects
- **Government commitments** to buy low-emission products are a **crucial demand signal**

The IDDI aims to **harness governments' purchasing power** to ignite **thriving markets** for low and near-zero emission concrete and steel

1. World Bank (2020): [Global Procurement Data Base: Share, Compare, Improve!](#)
2. World Economic Forum (2022): [6 countries taking action to solve concrete's emissions problems](#)

“If you make it we will buy it”

The Green Public Procurement Pledge

Over three years the IDDI expects to enable at least ten governments to pledge to begin reducing embodied carbon emissions in major public construction projects towards net zero by 2050.



Governments joining IDDI choose their starting point and level of ambition

Statement of Intent

Start now to work towards key aspects of the pledge without timebound commitments.

Level One

Starting **no later than 2025**, require disclosure of the embodied carbon in cement/concrete and steel procured for public construction projects.

Level Two

Starting **no later than 2030**, conduct whole project life cycle assessments for all public construction projects, and, by 2050, achieve net zero emissions in all public construction projects.

Level Three

Starting **no later than 2030**, require procurement of low emission cement/concrete and steel in public construction projects, applying the highest ambition possible under national circumstances.

Level Four

Starting in **2030**, require procurement of a share of cement and/or crude steel from near zero emission material production for signature projects.



IDDI pledge makers will provide annual progress updates and share learnings with other participating governments.

IDDI GPP commitments along the procurement and construction project life cycle

GPP commitments to require disclosure of EPDs, conduct whole project life cycle assessments and purchase low or near-zero emission materials are included in policies and procedure manuals as required.

Project planning



Project Owner

Design phase



Design Team

Tender & contract award



Builder

Construction phase



Design Team

Reporting



Project Owner

- Plans procurement process and project delivery strategy.
- Includes GPP commitments in procurement for design team.

- Applies GPP commitments to project design.
- Conducts whole project LCA to identify and select low emission design.
- Sources availability of low and near-zero emission materials.
- Includes requirements in standard technical specifications and blueprints.

- Uses standard technical specifications and blueprints to run sub-tender for materials and installation.
- Selects suppliers with low or near-zero emission materials and designs.

- On behalf of project owner, oversees construction process including delivery and installation of low and near-zero emission materials and designs.
- Receives EPDs and provides project reporting to project owner.

- Reports on policy commitments.
- Roll up into to Scope 3 reporting.
- Reports on progress against IDDI commitments.

PROJECTED IMPACT OF NATIONAL GPP COMMITMENTS FOR CONCRETE AND STEEL



In 2023, the governments of Canada, Germany, the United Kingdom and the United States committed to the IDDI GPP Pledge.

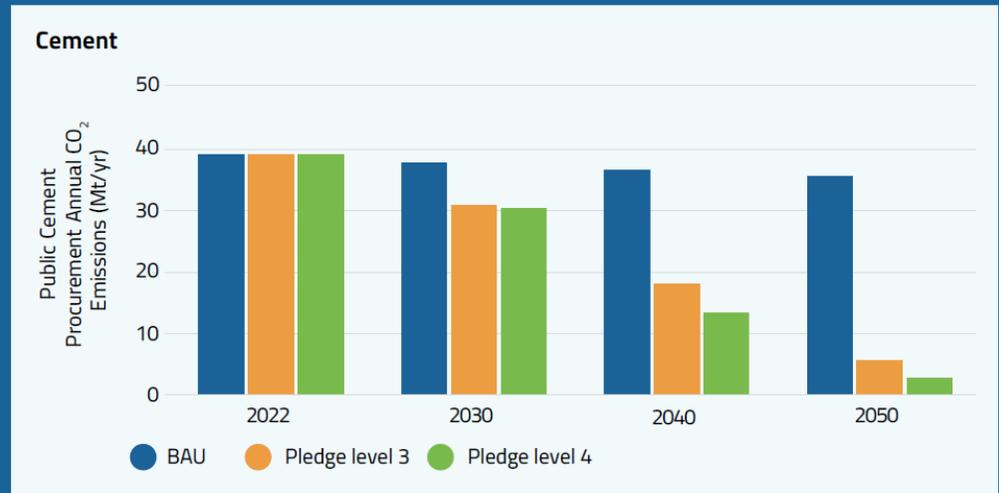
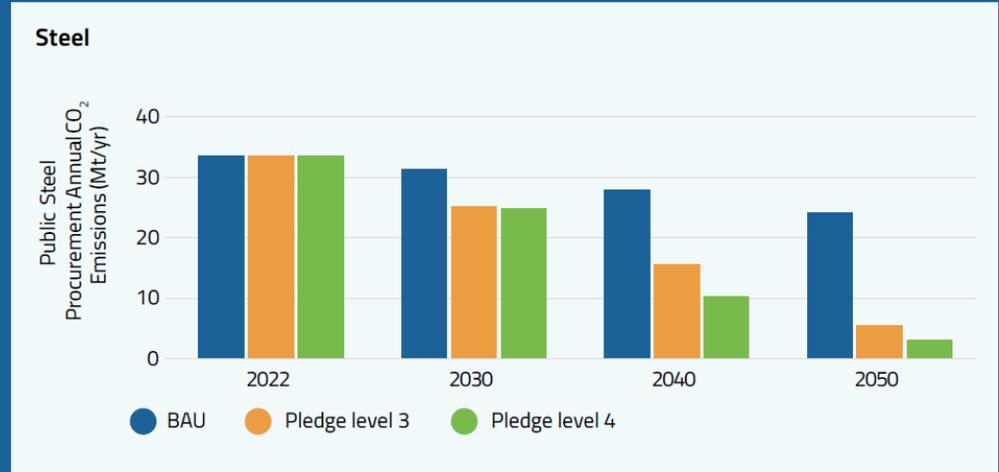
Average market share of public procurement:

- **16 % steel** (range 5-25%), and **27 % cement** (range 23 – 35%)

Implementing **GPP Pledge Level 3** policies in these countries could reduce procurement-related emissions by:

- **81%** by 2050 for steel products (27 Mt CO₂ pa)¹
- **85%** by 2050 for cement contained in products (33 Mt CO₂ pa)²

Figure ES1. Combined annual CO₂ emissions related to public procurement of steel and cement under BAU and IDDI GPP Pledge Levels 3 and 4 in the four countries studied



Hasanbeigi, A.; Sibal, A. 2024. *The Scale and Impact of Green Public Procurement of Steel and Cement in Canada, Germany, the UK, and the US*. Global Efficiency Intelligence and UNIDO.

¹ Steel: 33 Mt CO₂ in 2022 to 6 Mt CO₂ in 2050, ² Cement: 39 Mt CO₂ in 2022 to 6 Mt CO₂ in 2050

On the ground | Decarbonization of the cement and concrete sectors in Thailand



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INDUSTRIAL DEVELOPMENT ORGANIZATION

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Decarbonization of the cement and concrete sectors in Thailand

Decarbonization of the Cement and Concrete
Sectors (Challenges and Future) workshop

Bangkok, Thailand

2 December 2024

On the ground | Decarbonization of the cement and concrete sectors in Thailand



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Progress by innovation

Project Pillars



1. Net Zero policy frameworks and strategies

Policy and institutional ecosystem enhanced with a stronger commitment and greater investment towards decarbonization of cement and concrete sectors



2. Innovation Acceleration Programme

Promote and drive national innovation challenge encouraging local entrepreneurs to promote and demonstrate their solutions and offer a match-making platform linking industries and financing options



3. Investment and Commercialization of innovative decarbonization technologies

Preparation of investment projects for decarbonization of cement and concrete sectors through low-carbon technological solutions



4. Standards and Practices

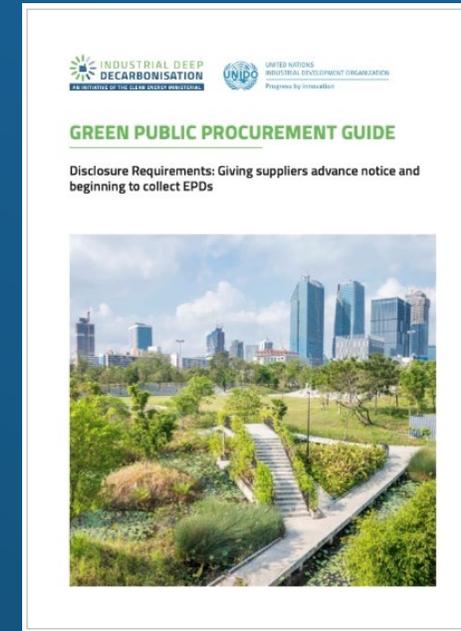
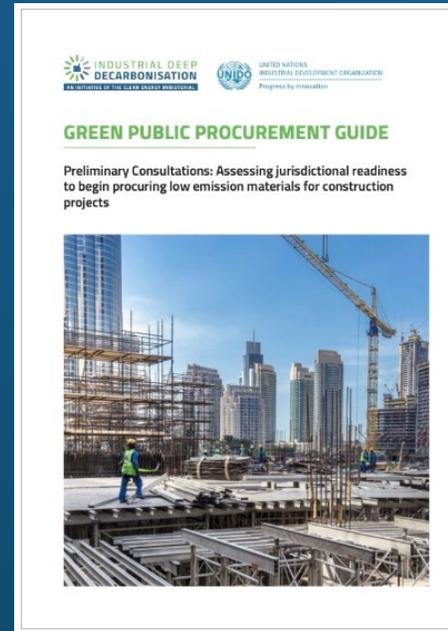
Support adoption of harmonized standards for GHG emissions and green public procurement targets developed for reducing carbon emissions and making cement and concrete sectors resilient



5. Cooperation and Experience sharing

Partnerships promoted, knowledge shared with relevant stakeholders for promoting and creating a market for low-carbon cement and concrete

LAUNCHED AT COP29 - GREEN PUBLIC PROCUREMENT GUIDES



- How to set commitments to buy low and near-zero emission concrete, steel and construction projects in public procurement practices
- Preliminary consultations – assessing jurisdictional readiness
- Disclosure requirements – giving suppliers advance notice and beginning to collect EPDs



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