UNIDO: Supporting Industrial decarbonisation in developing countries

WTO TESSD Working Group on Trade-related Climate Measures
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The United Nations Industrial Development Organization (UNIDO) is the specialized agency of the United Nations that promotes industrial development for poverty reduction, inclusive globalization and environmental sustainability.

UNIDO’s mission is to promote and accelerate inclusive and sustainable industrial development (ISID) in developing countries and economies in transition.

UNIDO programmatic focus is structured in four strategic priorities:

- Creating shared prosperity
- Advancing economic competitiveness
- Safeguarding the environment
- Strengthening knowledge and institutions
Continued reliance on fossil fuels – e.g. coal meets as much as 75% of energy demand in iron and steel

Renewable energy’s historic inability to produce the high-temperature heat required by many industrial processes

Lack of carbon pricing, emissions trading and border adjustment taxes, which are key in ensuring competitiveness of low carbon technologies

Weak policy environments – only 25% of industrial energy use is covered by mandatory energy efficiency standards

Developing Countries face Systemic Challenges…
UNIDO Department of Energy

Program Overview:

- Global Program for Green Hydrogen in Industry
- Industrial Deep Decarbonisation Initiative
UNIDO’s Global Programme for Green Hydrogen in Industry

- Launched in July 2021
- Fosters the application of green hydrogen in industry in developing countries and transition economies.
- Supported by Austria, Germany, Italy and the International Hydrogen Energy Centre in China
International Hydrogen Energy Centre (IHEC) in Beijing

**TECHNICAL COOPERATION**
- Coordinating
- Enabling
  - GH2 clusters (industrial parks, clusters, zones, H2 valleys)
  - Country interventions
  - Technical training and guidelines

**GLOBAL PARTNERSHIP**
- Developing
- Exchanging
  - Policy dialogue
  - Joint project development
  - Awareness & capacity-building
  - Knowledge products

**GLOBAL PROGRAMME GREEN HYDROGEN IN INDUSTRY**
- Developing
- Exchanging
  - Joint project development
  - Awareness & capacity-building
  - Knowledge products

**Multiple stakeholders**

**International Hydrogen Energy Centre (IHEC) in Beijing**

**Industry – Government - Investors**
The top five CO$_2$-emitting industries (steel, chemical, cement, concrete, aluminum, and refining industry) account for around 70 per cent of total global industrial emissions. Together, steel, cement and concrete, are responsible for 14-16% of global energy-related CO$_2$ emissions.

Source:
THREE PATHWAYS TO ACHIEVE CHANGE

There are two key gaps in promoting the decarbonisation of industrial sectors.

- Data and standards
- Green public procurement policy

PATHWAY 1: Building the foundations to enable a thriving global market.

PATHWAY 2: Empowering governments to buy near zero carbon materials for their public works.

PATHWAY 3: Encouraging governments to disclose and reduce embodied carbon emission in public construction projects.

ENABLING ENVIRONMENT

POLITICAL WILL

INCLUSIVE AND SUSTAINABLE INDUSTRIAL DEVELOPMENT
THREE WORKING GROUPS

Three technical working groups bringing together government, private sector and leading expert organizations

**WG1 on data and reporting**
- Recommendations for enhancing data systems to enable life cycle and GHG emissions reporting at producer facilities and downstream along the supply chain
- Establish a common set of rules for life cycle databases and environmental product declarations (EPDs)
- Develop guidelines on the role of government in data collection and reporting

**WG 2 on low carbon standards**
- A methodology to support interoperability of various standards at an interim basis to allow for comparability
- A set of PCRs for steel, cement, and concrete construction materials/products for EPDs, using data accessed through databases

**WG 3 on green procurement**
- Develop guidelines and tools for target setting and requirements for disclosure of GHG emissions in material and projects
- Build capacity and encourage knowledge sharing on procurement policy, best practices (workshops, symposium, policy support services)
- Create learning materials to encourage global adoption of established standards

Conduct analysis, identify needs, prepare best practice case studies, develop guidelines and tools to tackle market enablers

**Disclosure**
By 2025, governments to begin to disclose embodied carbon emissions

**2030 target**
Target XX% reduction on public construction projects vs 20XX

**2050 target**
Governments achieve net zero embodied carbon emissions in public construction.
THANK YOU!

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