



Technology Executive Committee

02 April 2024

Twenty-eighth meeting

16–19 April 2024 (19 April TEC-CTCN Advisory Board Joint session)

## **Draft annotated outline for a policy brief on hard-to-abate industries in updated NDCs**

### **Cover note**

#### **I. Background**

1. As per activity C.3.1 of its rolling workplan (2023–2027), the TEC works to promote low and near zero emission production and products, including in the steel and cement industries, through the support of innovation, enabling environments, sustainable purchasing commitments, and financing to inform the preparation and implementation of NDCs.
2. At TEC 27, the TEC provided guidance to the activity group on transformative industry to finalize the mapping paper on existing initiatives on transformative industry to identify where the TEC could add value<sup>1</sup> and requested the activity group to prepare, on the basis of the mapping paper, a knowledge product taking into consideration suggestions provided by TEC members.

#### **II. Scope of the note**

3. The annex to this note contains the draft annotated outline for a policy brief on the integration of hard-to-abate industries in updated NDCs.

#### **III. Expected action by the Technology Executive Committee**

4. The TEC will be invited to consider the draft annotated outline contained in the annex and provide guidance to the activity group on further work on this matter.

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<sup>1</sup> <https://unfccc.int/ttclear>.

## Annex

### **Draft annotated outline for a policy brief on hard-to-abate industries in updated NDCs**

#### **Executive summary**

- Importance of integrating targets on hard-to-abate industries, including on low and near-zero emission technologies in updated NDCs for the period of 2025–2035;
- Transformation of the steel, cement/concrete, and chemical industries is crucial to substantially reduce emissions of the industry sector to keep the 1.5-degree target within reach;
- Countries to develop clear milestones and targets for hard-to-abate industries within their updated NDCs, focusing on electrification, renewable energy utilization, transparency, and milestones for each major production;
- Collaboration between industry, research institutions, and governments is key to accelerating the development and deployment of net-zero technologies;
- Continuous monitoring and evaluation of progress are necessary to track the effectiveness of these technologies in reducing emissions;
- International cooperation and knowledge sharing play a crucial role in fostering innovation, technology transfer, and capacity-building for successful integration into updated NDCs.

#### **1. Introduction**

- Industrial sector as a major contributor to global greenhouse gas emissions with references to key findings from the IPCC, IEA, IRENA and the outcomes of the first global stocktake;
- Urgent need for integrating low and near-zero emission technologies in this sector into updated NDCs for 2025–2035;
- Summary of findings from the TEC mapping paper on hard-to-abate industries, including technology and policy options, and existing approaches and initiatives.

#### **2. Objectives and scope**

- Provide guidance and support to countries with integrating industry mitigation actions in NDCs;
- Inform countries on technology and policy options for hard-to-abate industries as they update their NDCs for the 2025–2035 period;
- Provide samples of policy actions that could be considered by countries for integration in their NDCs;
- Inform countries on implementation considerations to enable the feasibility of industry mitigation actions;
- Provide recommendations on how to draft NDCs to make them trigger better quality investment plans.

#### **3. Policy options for decarbonizing hard-to-abate industries**

- Research, development and demonstration: Foster investment in and enabling environments for research, development and demonstration of technologies and processes to drive innovation for hard-to-abate industries. Building on previous work of the TEC on RD&D and national systems of innovation;
- Collaboration and Knowledge Sharing: Encourage collaboration and knowledge sharing between industries, research institutions, and government agencies to accelerate the transition to zero emissions;
- Supporting Electrification: Promote the electrification of industrial processes by providing incentives for industries to transition from fossil fuel-based energy sources to renewable electricity and supporting the expansion and strengthening of grid infrastructure;
- New technologies: Encourage take-off of new technologies such as direct reduced iron with renewable hydrogen (hydrogen DRI);
- Energy Efficiency Standards: Implement energy efficiency standards and regulations to encourage industries to reduce energy consumption and emissions;

- Carbon Pricing: Implement carbon pricing mechanisms, such as carbon taxes or emissions trading systems, to provide economic incentives for industries to reduce their emissions;
- Product Carbon Footprint (PCF) and Life Cycle Assessment (LCA) Standards: Encourage the harmonization and use of PCF and LCA standards to comprehensively assess the ecological footprint of products and analyse their impact on the environment;
- Definitions: Develop clear transparent emissions thresholds and labels to incentivize the productions of low and near-zero emissions industrial products;
- Phase-out of high GWP non-CO2 gases: Regulate the phase out of F-gases and SF6 in line with the UAE Consensus reached at COP 28;
- Green Public Procurement: Implement green public procurement policies, where public authorities seek to procure goods, services, and works with a reduced environmental impact throughout their life cycle.

#### **4. Implementation**

- Implementation of these policies requires the involvement of various stakeholders, including governments, the industrial sector, financial institutions, and international organizations;
- Roadmaps with milestones can guide the implementation process, ensuring that progress is measured and monitored;
- Regular monitoring and evaluation should be conducted to ensure the effectiveness of the implemented measures;
- Roles and responsibilities of these stakeholders, the resources required for implementation, and potential challenges and solutions should be considered in line with different country contexts;
- Blended finance, strategically combining public sector grants and concessional loans with private capital, to de-risk pre-commercial projects and unlock a larger pool of capital. Building on previous work of the TEC on technology financing, including TEC brief #6 and the TEC report on Enhancing Access to Climate Technology Financing;
- Models for collaboration between industry, research institutions, and governments to accelerate the development and deployment required technologies. Building on the TEC mapping on hard-to-abate industries;
- International cooperation and knowledge sharing for innovation, technology transfer, and capacity-building for successful integration into updated NDCs.

#### **5. Conclusions and recommendations**

Conclusions based on findings of the above sections and recommendations derived from those conclusions, including on the integration of targets on hard-to-abate industries in updated NDCs for 2025–2035, possibly setting sub-sectoral targets and tracking the progress of key emitting industrial sites per country; clear milestones for 2030 and 2035, with the ultimate goal of full decarbonization as part of the long-term, low-emission development strategies.

#### **References**

*To be inserted*

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