

Twenty-eighth meeting of the Council  
Abu Dhabi, 24-25 October 2024

## **Background Note**

### **Accelerating renewable demand in industries and transport to achieve the COP28 Tripling RE pledge**

#### **Background**

1. Limiting the global average surface temperature rise to 1.5°C above pre-industrial levels will require all sectors of the economy to decarbonise by 2050. This is a great challenge that will require massive new investments and profound changes in the way energy systems operate.
2. For some sectors, such as passenger road transport or the power sector, clear pathways to net-zero emissions exist. However, the pathways to decarbonise some other industrial and transport sectors are not fully clear, such as for heavy-duty trucks, international shipping and aviation, and steel and chemical industry. These sectors are major greenhouse gas (GHG) emitters and are harder to decarbonise due to their physical, technological or market particularities.
3. The full decarbonisation of the hard-to-abate sectors will require a combination of approaches, given the characteristics of each sector. However, most emission reductions will have to be achieved through a combination of five main pathways which rely primarily on renewable energy and energy efficiency. These pathways are: 1) reduced demand and improved energy efficiency; 2) the direct use of electricity; 3) the direct use of renewable heat and biomass; 4) the indirect use of electricity via synthetic fuels and feedstocks; and 5) the use of carbon capture utilisation and removal measures.
4. At the request of the 2024 Group of Seven (G7) Presidency, IRENA published a report with actionable recommendations to decarbonise select “hard-to-abate” sectors, elaborating on the technological pathways and enabling conditions needed to achieve this goal.
5. These recommendations are: Establishing sector-specific decarbonisation targets; taking further steps towards creating a level playing field for green technologies; accelerating the deployment of renewable power supply in alignment with COP 28’s tripling pledge; scaling-up sustainable bioenergy production and sustainable carbon sourcing; kick-starting the deployment of production capacity for green hydrogen derivatives; enhancing planning to accelerate the deployment of critical infrastructure; driving the adoption of innovative technologies to avoid lock-in; creating initial markets for low carbon commodities; bridging the finance gap; supporting the development of a skilled workforce; and fostering international co-operation.

### **Objective of the session**

- This programmatic discussion will offer an overview of the findings of IRENA's latest report on decarbonising hard-to-abate sectors. It will also serve as an opportunity for IRENA Members to: 1) share policy experience in addressing this challenge and identify priority areas and actions – markedly in terms of international cooperation - that can accelerate global decarbonisation of hard-to-abate sectors; and 2) help shape IRENA's future work on the topic of decarbonising hard-to-abate sectors with their feedback.

### **Guiding questions**

- How can IRENA Members accelerate the adoption of renewable energy in hard-to-abate sectors?
- How can governments support the development of necessary infrastructure (e.g., renewable power generation, renewable fuel production and distribution networks) nationally and internationally to enable the transition in these sectors?
- Are there any areas of decarbonisation that should be prioritised (e.g. technologies, supply chains and markets, capacity building)?
- What role can IRENA play in supporting national and global efforts to decarbonize hard-to-abate sectors?

### **Associated Publications**

- [Decarbonising hard-to-abate sectors with renewables: Perspectives for the G7](#) (IRENA, 2024)