

## Fourteenth session of the IRENA Assembly

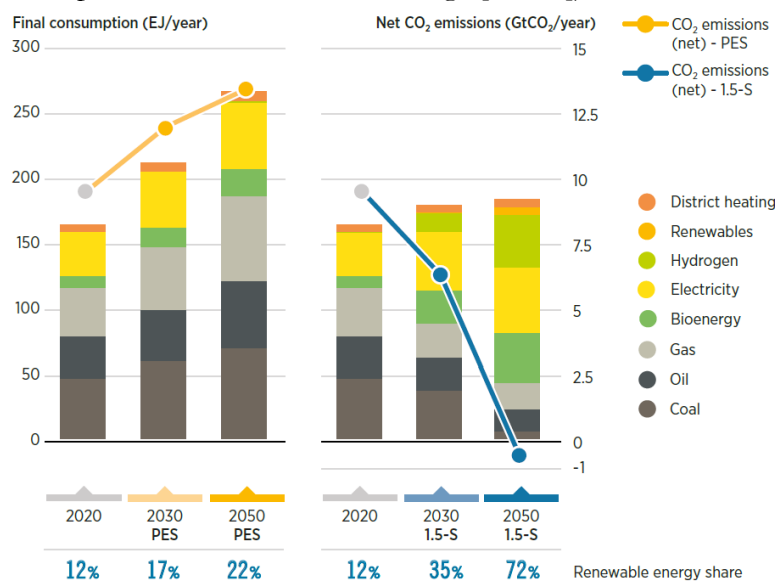
### Alliance for Industry Decarbonization (AFID)

16 April 2024, 16:00 – 17:30 GST  
St. Regis Hotel, Saadiyat Island, Abu Dhabi

#### *Background*

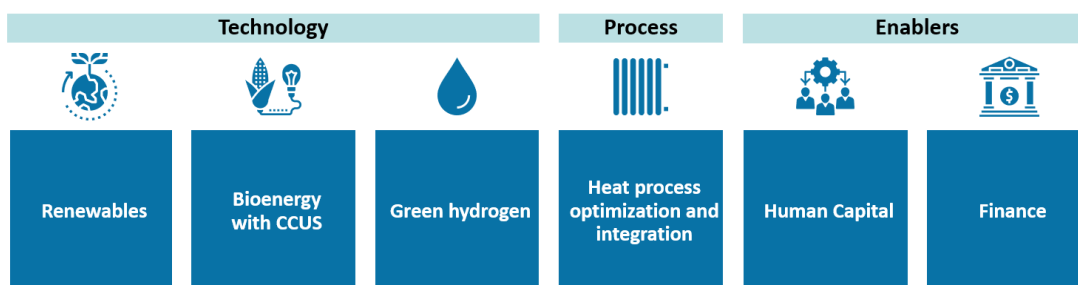
Industrial production of key materials is an essential enabler of modern economies. As countries develop, the demand for such materials grows, and, thus, energy consumption. The industry sector accounted for 36% of the global final energy consumption in 2020. Moreover, production processes are carbon intensive, making industry responsible for one-fourth of the global energy-related CO<sub>2</sub> emissions (the second-largest emitter after the power sector). Without increased emission reduction efforts within the industrial sector, the goal of limiting global temperature rise to 1.5°C stays unreachable.

Reducing emissions across industrial sectors will require radical shifts in how materials are produced, consumed and disposed of. IRENA's 1.5°C Scenario proposes a portfolio of decarbonisation strategies built on five pillars: reduced demand and improved energy and materials efficiency along with circular economy practices and structural changes; direct use of clean electricity; direct use of renewable heat and biomass; indirect use of clean electricity via synthetic fuels and feedstocks (predominantly using renewable electricity); use of CO<sub>2</sub> removal and CCS measures (including bioenergy with carbon capture, utilisation and/or storage [CCUS]).



**Note:** The figure includes energy demand for non-energy uses, coke ovens, blast furnaces, chemical fuels and feedstocks along with industry co-generation. Renewable energy share includes direct uses and contributions on the supply side (electricity/heat/green hydrogen generation). Net emissions consider the effect of carbon capture. 1.5-S = 1.5°C Scenario; EJ = exajoule; GtCO<sub>2</sub> = gigatonnes of carbon dioxide; PES = Planned Energy Scenario.

The [Alliance for Industry Decarbonization](#) (AFID) aims to decarbonise industrial value chains and accelerate net-zero ambitions in accordance with the Paris Agreement. The Alliance’s members and partners, consisting of private and public organisations and stakeholders operating in energy-intensive sectors, commit to collaborate toward the common vision of a green future. The members believe in the power of partnerships based on honest dialogue and concrete actions. IRENA coordinates and facilitates the activities of the Alliance based on its vast experience in hosting multi-stakeholder platforms. The Alliance operates under the following key strategic pillars:



During COP28, the top executives and eco-system knowledge partners of AFID held a [roundtable discussion](#) and adopted [Decarbonization Commitment](#) with qualified joint targets to raise the ambition towards decarbonisation through tangible achievements by 2030. Members of AFID have individual reduction plans that combined, aim to reduce 51% of direct and indirect greenhouse gas (GHG) emissions and grow the installed renewable capacity from 84 gigawatts (GW) today to 187 GW in 2030. Moreover, Alliance’s members also commit to almost double installed green hydrogen, drive green energy solutions, increase workforce re-skilling from currently 15% to 91% and significantly boost investments in energy transition projects to more than USD 50 billion by the end of this decade.

The analysis of IRENA refers to ongoing industrial transformation that requires a combination of strategies, regulations, standards, financial and fiscal incentives, technology innovation and other measures to create the initial market demand for low-carbon industrial products and make them profitable and in a level playing field with fossil fuel-based products. Policies and measures that act as enablers include strategies and roadmaps, carbon pricing policies, green public procurement, standards on low-carbon materials and products, a circularity-based framework, as well as programmes and initiatives to promote information and experience sharing.

## *Objectives*

Early visionary movers from governments and companies must share learnings to ensure a stream of “fast followers” to rapidly scale up international efforts on industry decarbonisation. The AFID will present a set of actions and joint initiatives for 2024 and years to come as a long-term development strategy aligned with countries’ net-zero and decarbonisation commitments. Feedback on the AFID ambitions and programme will be sought from the governments and key stakeholders of industry decarbonisation.

## *Guiding Questions*

- Which coordinated international actions are urgently needed to accelerate progress and galvanise public and private international action priorities in order to advance industry decarbonisation?
- How to facilitate private sector collaboration on novel technologies, using public support to drive costs reductions in all regions?
- How could the key cooperation pillars of AFID, as a long-term development strategy, support countries’ net-zero and decarbonisation commitments?

## *Associated Publications*

[Green hydrogen for sustainable industrial development: A policy toolkit for developing countries](#) (UNIDO, IRENA, IDOS, 2023)

[Breakthrough Agenda Report 2023](#) (IEA, IRENA and the United Nations Climate Change High-Level Champions, 2023)

[Towards a Circular Steel Industry](#) (IRENA, 2023)

IRENA Innovation Week 2023: [Renewable solutions to decarbonise end-use sectors](#)

[Implementation Plan](#) (AFID, 2024)

## *For more information please contact*

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