International Energy Agency

COP29 Outcomes: From taking stock to taking action

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COP28: Saw a historic consensus agreement achieved

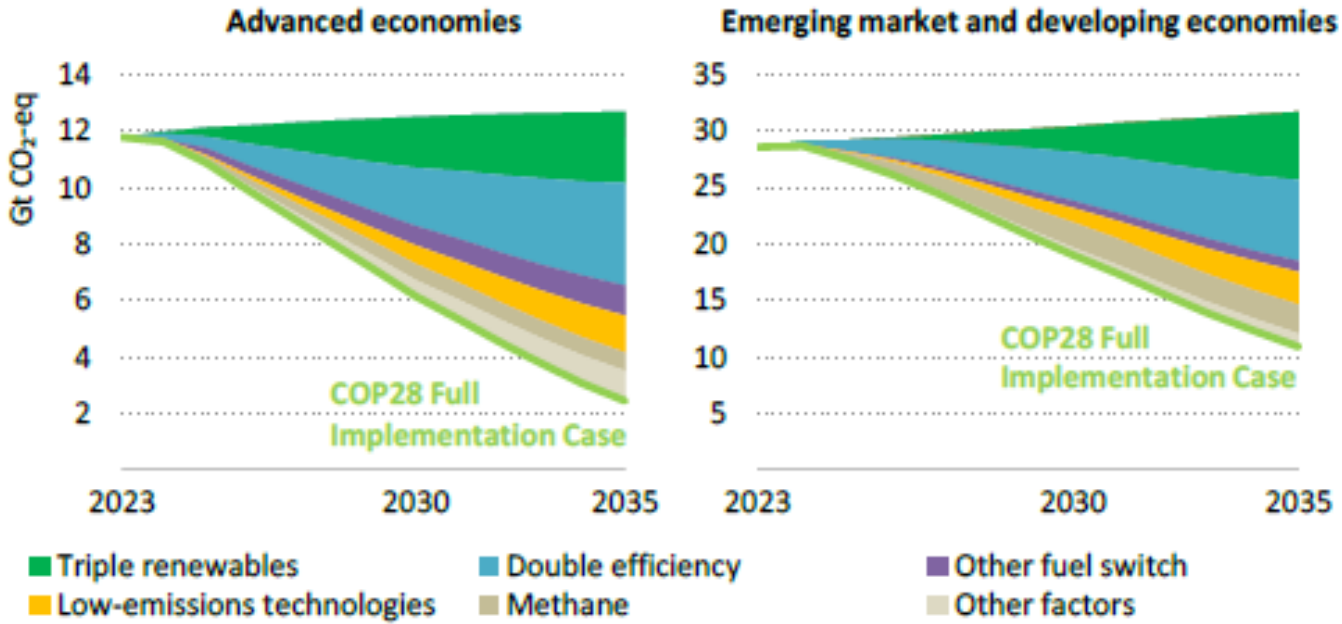
COP28 Energy Outcomes

- Reaching global net zero emissions in the energy sector by 2050;
- Transitioning away from fossil fuels in line with net zero emissions by 2050;
- Tripling the global installed capacity of renewable energy by 2030;
- Doubling of the rate of energy efficiency improvement by 2030

What does this mean? What comes next?

Full implementation of COP28 outcomes achieve net zero by 2050…

Contribution of key elements to reduce energy-related emissions in the COP28 Full Implementation Case, 2023-2035

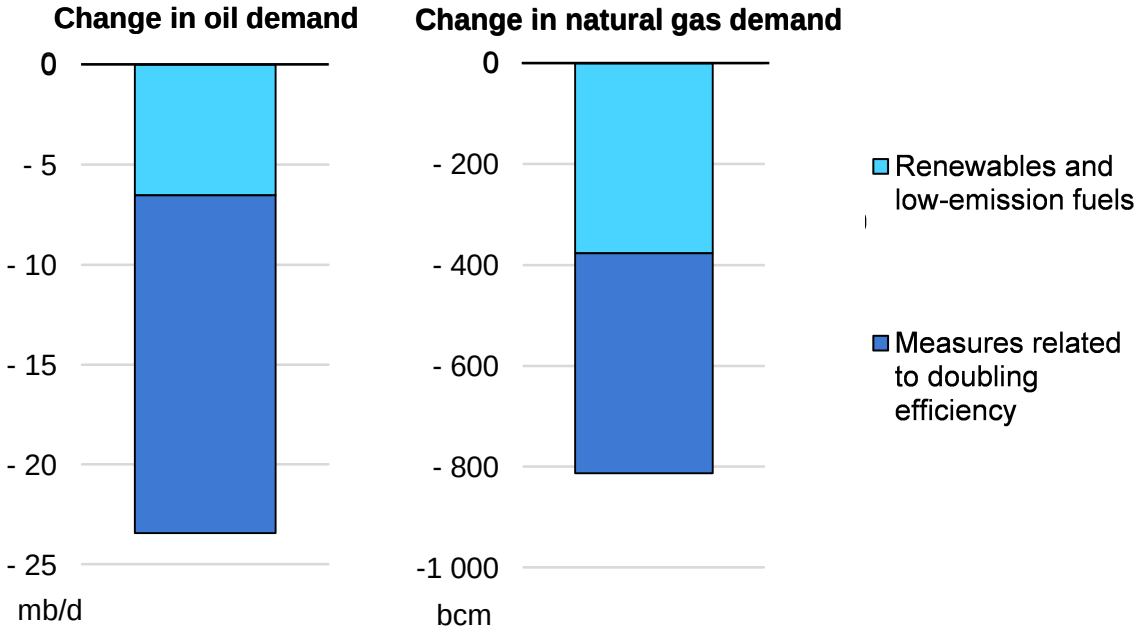


Implemented fully, the COP28 outcome energy goals put emissions into a steep decline, setting the stage for ambitious NDCs to be submitted next year for COP30

Source: IEA 2024, From Taking Stock to Taking Action: A WEO Special Report

…. and initiates the transition away from fossil fuels this decade

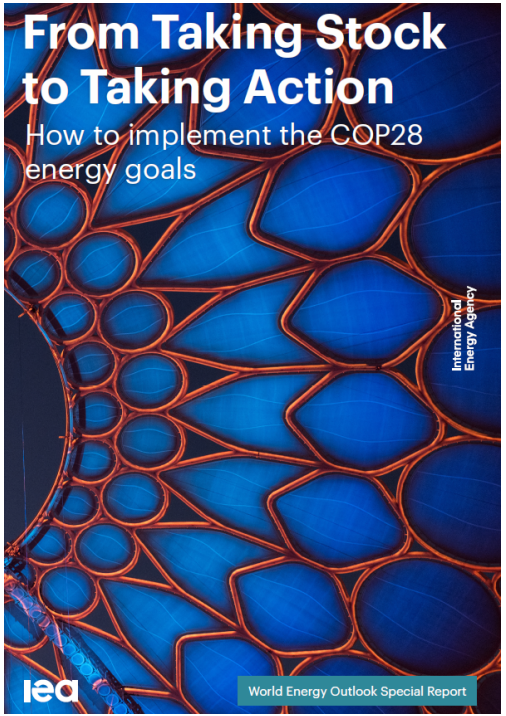
Oil and gas demand in the IEA COP28 Full Implementation Case relative to the Stated Policies Scenario, 2030



Tripling renewables adds 14 000 terawatt-hours (TWh) of additional clean electricity by 2030
Doubling efficiency includes EV deployment reducing 10 million barrels per day (mb/d) of oil demand by 2030

Source: IEA 2024, From Taking Stock to Taking Action: A WEO Special Report

Moving from higher ambition to stronger action on implementation



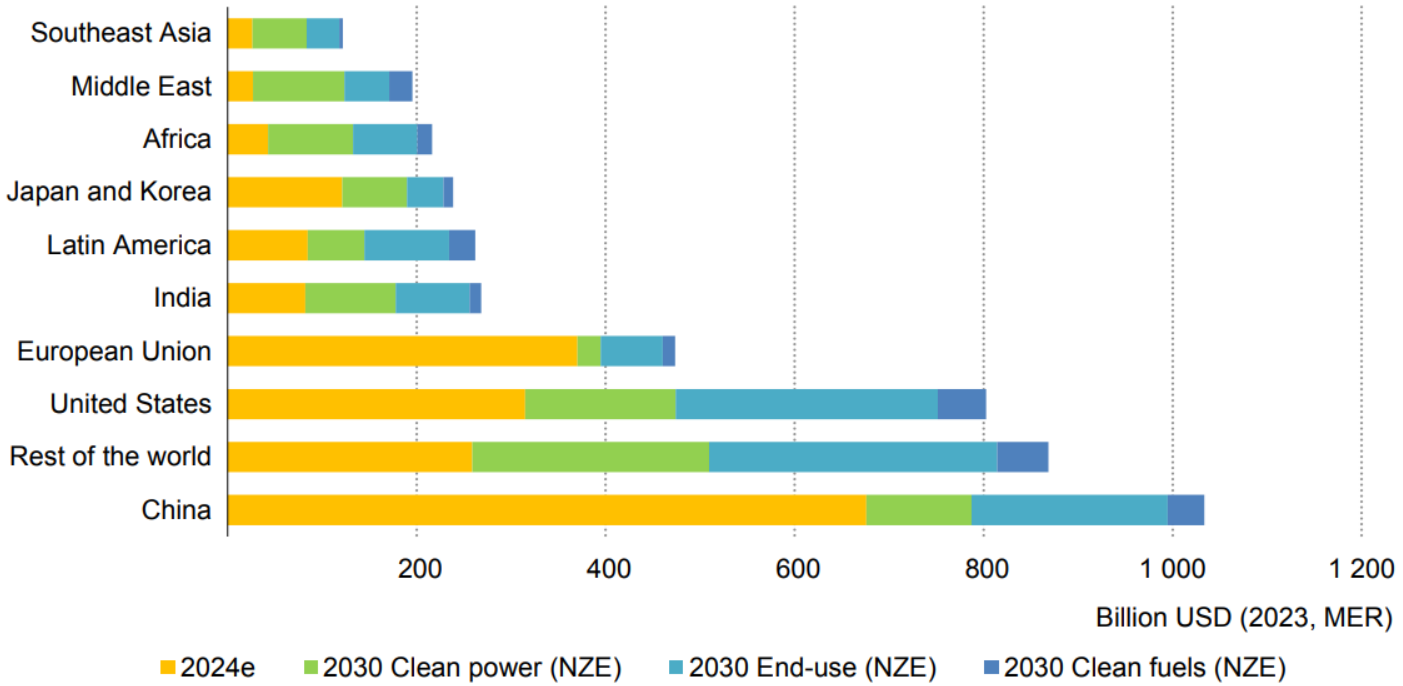
COP29 Opportunities

1. Scale up **energy storage and grids** to help achieve the global goal of **tripling renewable energy capacity** this decade.
2. Ensure countries take a **comprehensive approach** to achieving the goal of **doubling energy efficiency** progress.
3. Maintain a focus on the **transition away from fossil fuels** through actions to **cut methane emissions** and to retrofit, retire or repurpose fossil fuel assets, such as coal-fired power plants.
4. Align the next round of **Nationally Determined Contributions** with the **COP28 outcomes**, ensuring they are economy-wide and, for major economies, include absolute emission reduction targets.
5. Recognise the urgent need for **boosting clean energy investment** in **emerging and developing economies** to support their transitions.

Five key focus areas for implementation – particularly scaling up financing for emerging economies

Meeting COP28 goals requires a doubling of investment worldwide

Investments in clean power, clean fuels, and end use, 2024e and 2030 in the NZE Scenario

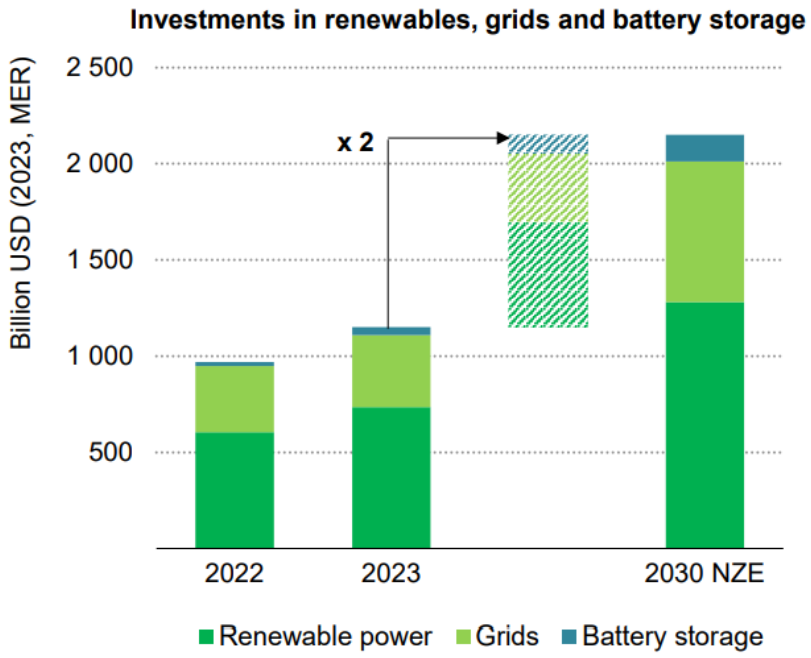


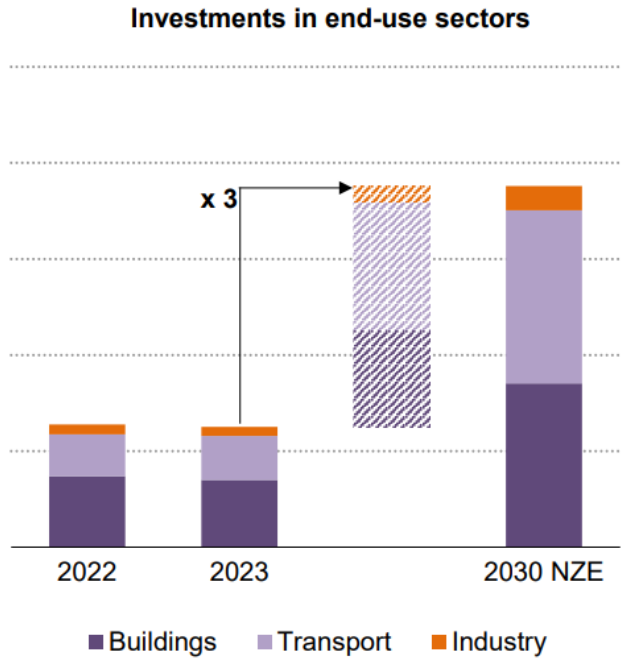
Including a quadrupling of investment in emerging and developing economies outside China

Source: IEA 2024 World Energy Investment

Much greater efforts are needed by 2030 to get on track

Investments in renewable power, grids, and battery storage, as well as end use sectors, today versus 2030, NZE Scenario



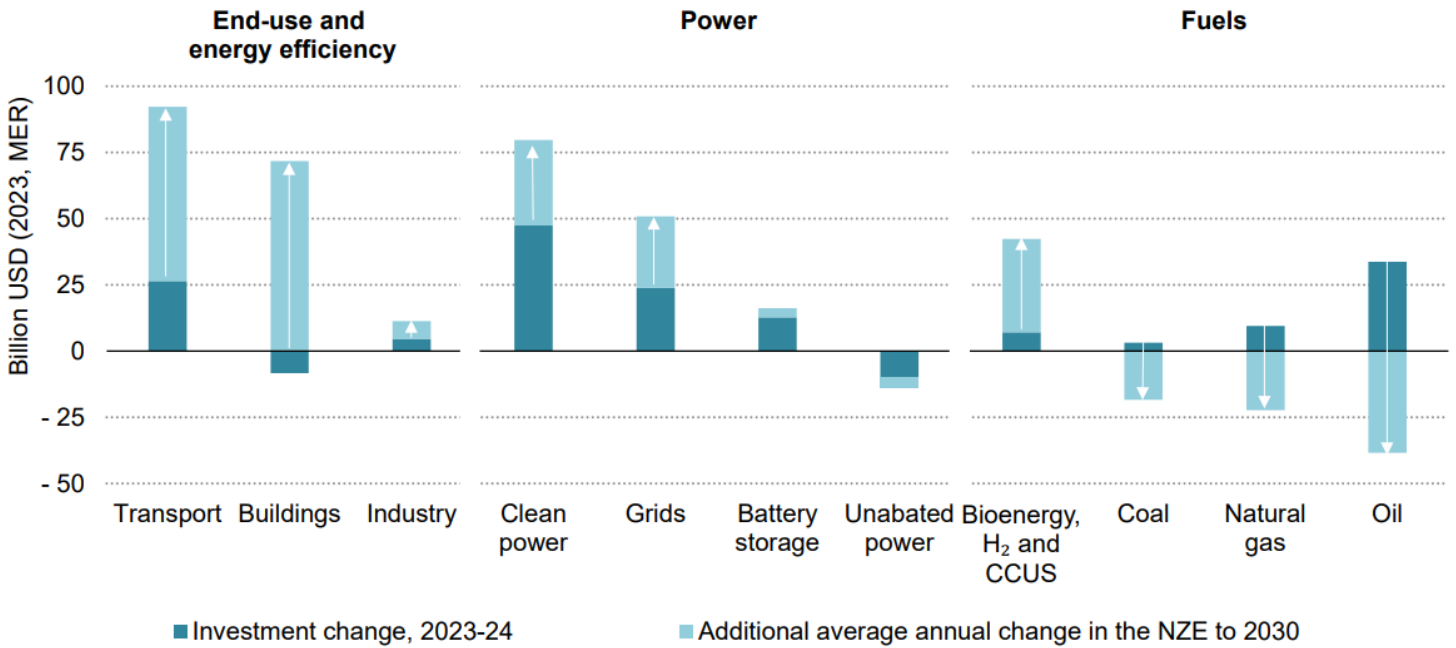


A doubling of investments to triple renewables capacity
A tripling of spending to double efficiency progress

Source: IEA 2024 World Energy Investment

The largest scaling up of investment is needed in end use sectors

Investment change in 2023-24, and addition average annual change in investment in the NZE Scenario, 2023-2030



A secure and affordable transitioning away from fossil fuels requires a major rebalancing of investments

Source: IEA 2024 World Energy Investment

At COP29 countries put a central focus on clean energy finance

Selected COP29 Outcomes

- Agreed the **New Collective Quantified Goal on Climate Finance**
- **Triple finance to developing countries**, from the previous goal of USD 100 billion annually, to USD 300 billion annually by 2035.
- Scale up finance to developing countries, from **public and private sources**, to the amount of USD **1.3 trillion per year** by 2035

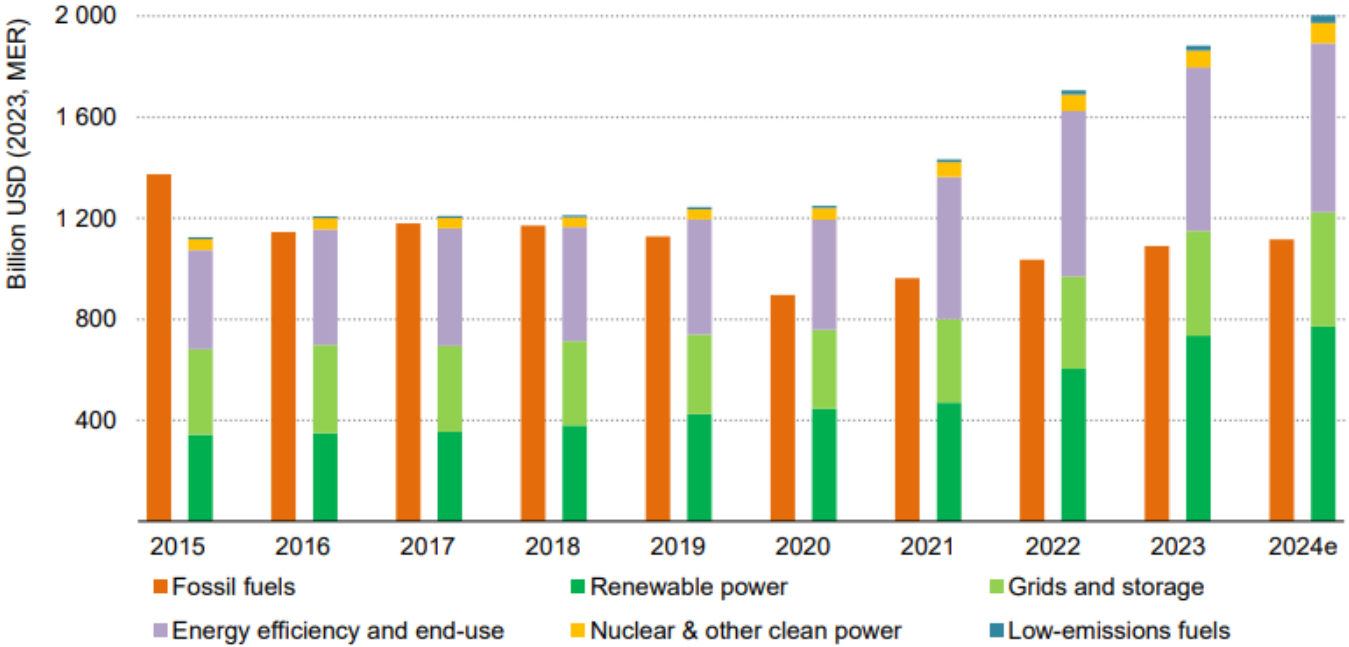
Plus

- A deal on Article 6 Carbon Markets

How can we interpret these numbers?

The world invests almost USD 2 trillion in clean energy today

Global investment in clean energy and fossil fuels, 2015-2024e

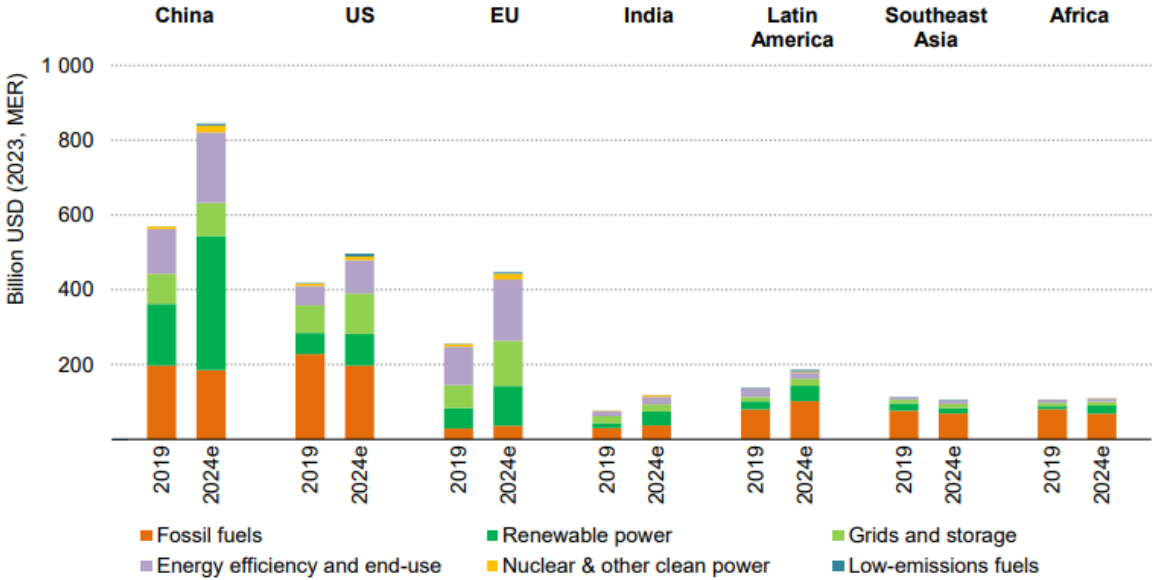


Almost twice as much as it does in oil, gas and coal
Total energy sector investment is around USD 3 trillion per year

Note: Other clean power = fossil fuel power with CCUS, hydrogen, ammonia, and large-scale heat pumps. Low-emissions fuels = modern bioenergy, low-emissions H_2 based fuels, and CCUS associated with fossil fuels and also includes direct air capture. 2024e = estimated values for 2024.

EMDEs excl. China account for only 15% of total energy spending

Annual energy investment by selected country and region, 2019 and 2024e



The New Collective Quantified Goal on Climate Finance begins to address major imbalances in energy investment
Providing access to modern energy such as clean cooking a key priority

Source: IEA 2024 World Energy Investment

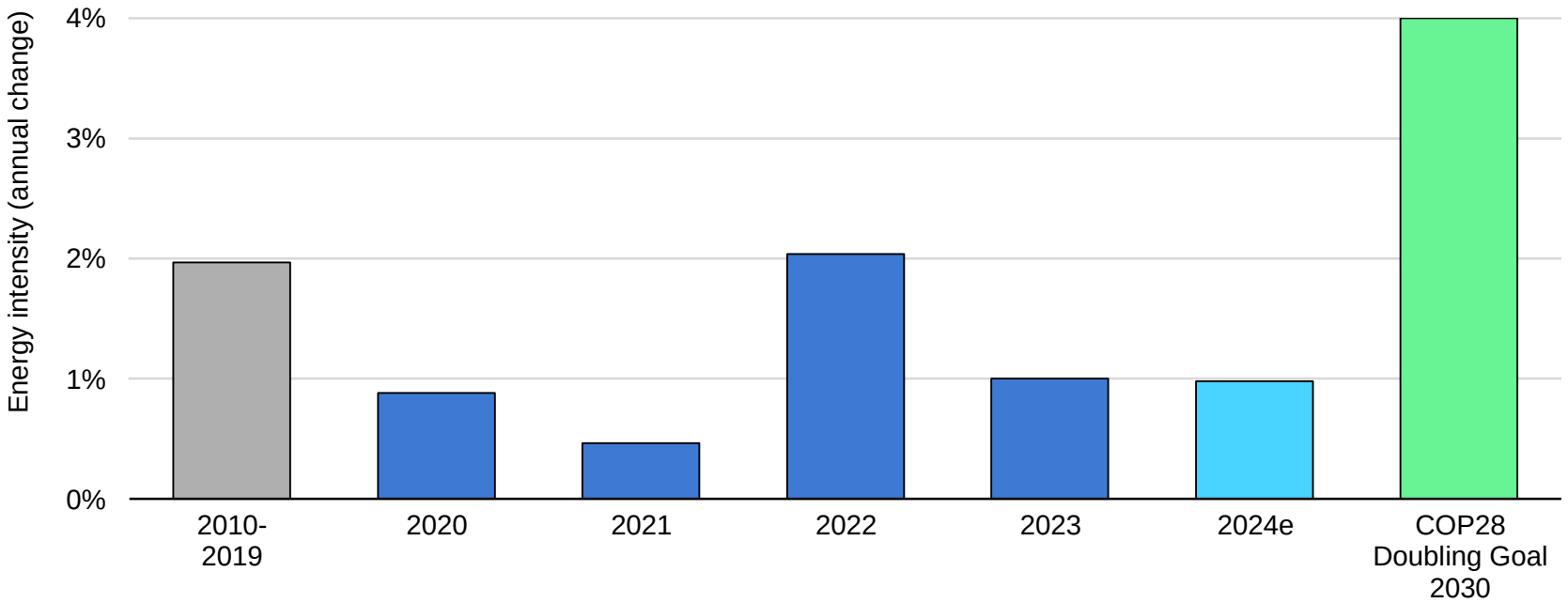
Energy Efficiency Deep Dive

A process of growing international momentum and consensus building

The doubling target was endorsed by 46 countries at the IEA 8th Annual Global Conference on Energy Efficiency in Versailles, June 2023 as well as supported by India's G20 and Japan's G7 Presidencies

The world is not yet on track to double energy efficiency progress

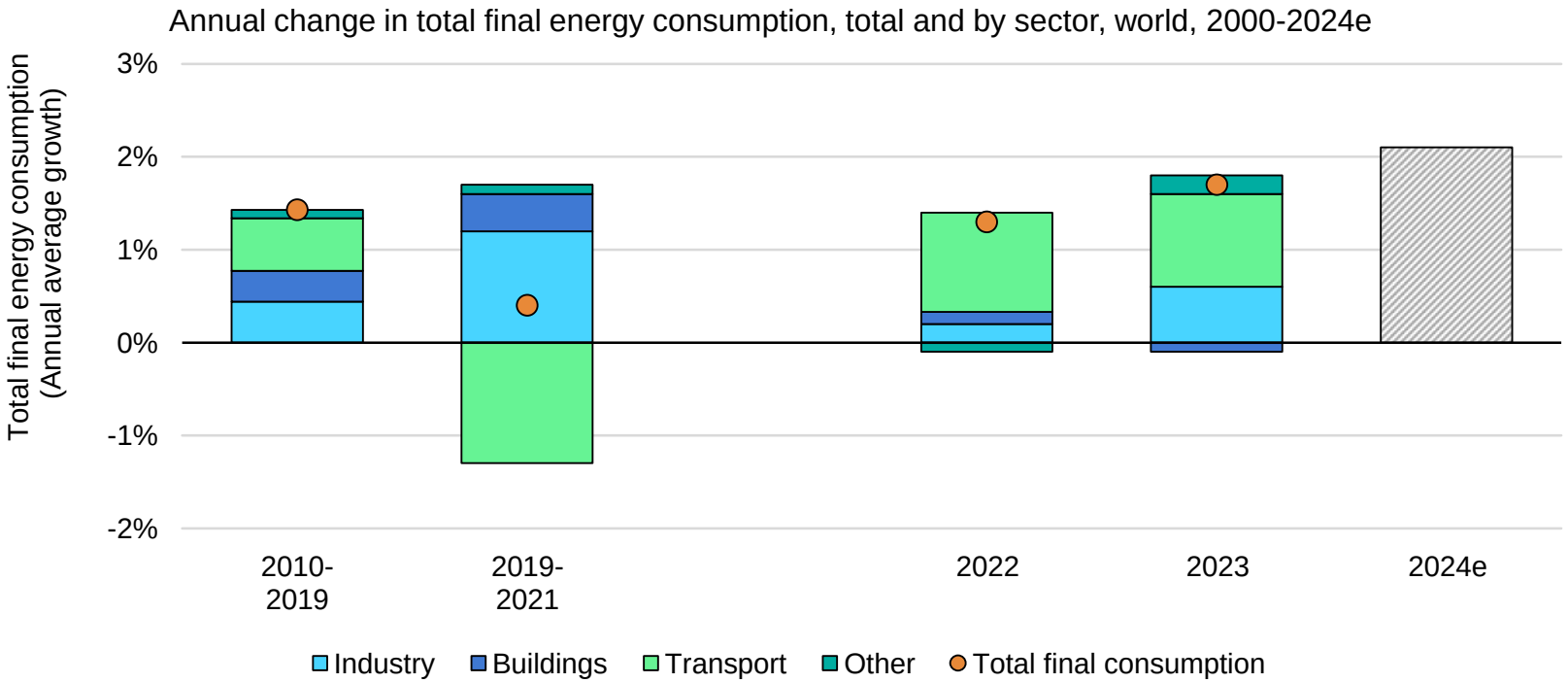
Global annual improvement in primary energy intensity, 2020-2024e, and rate needed to achieve the COP28 doubling goal



Policymakers are starting to respond to the COP28 commitment to double global energy efficiency progress, but energy intensity improvement in 2024 remains sluggish.

Source: IEA Energy Efficiency 2024

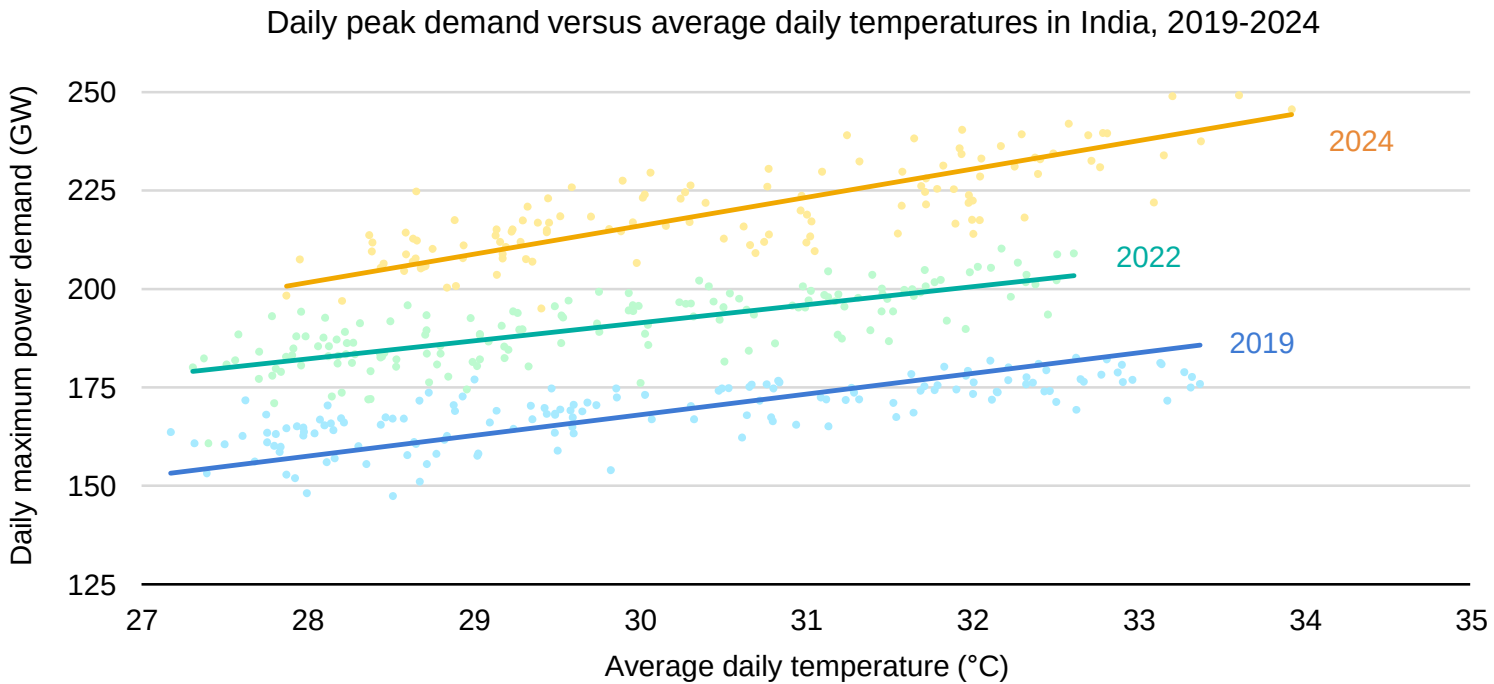
Energy demand is recovering after several shocks



Demand growth in industry, as well as increased cooling needs in hot regions, is expected to keep energy demand growth steady in 2024

Source: IEA Energy Efficiency 2024

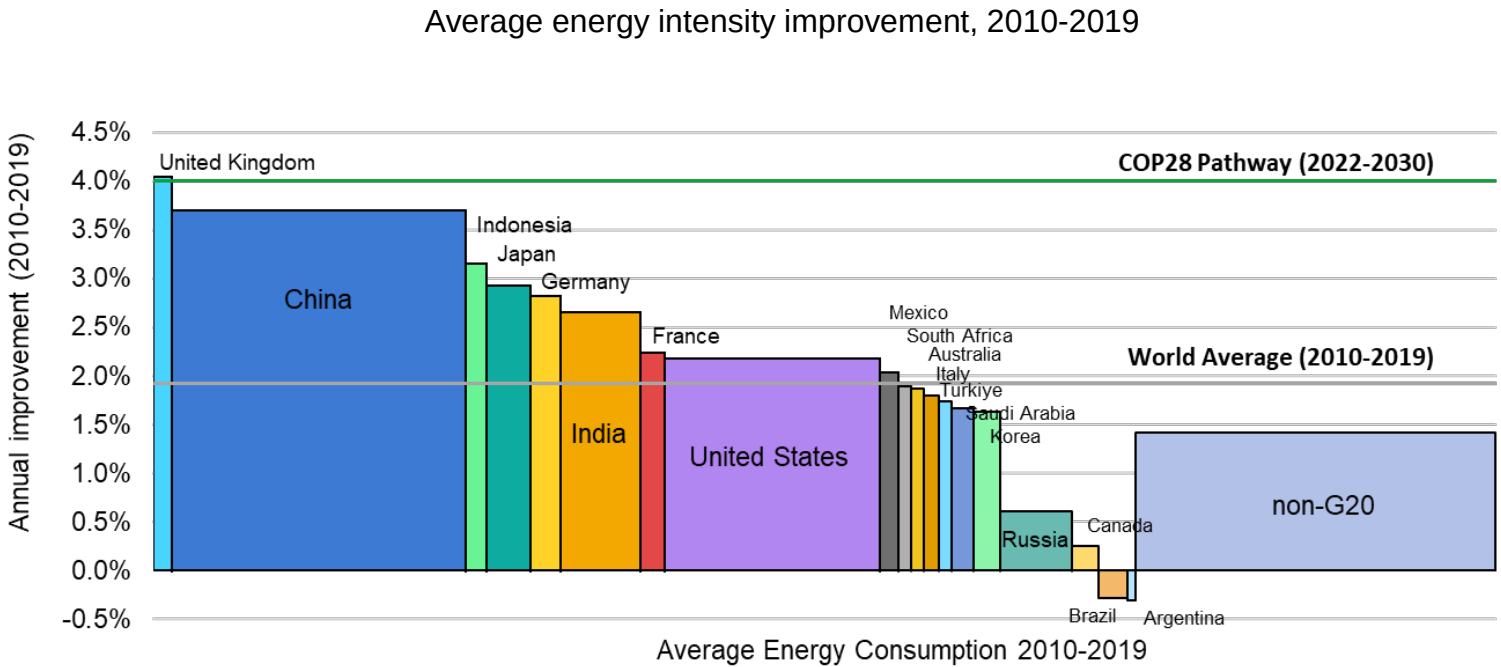
Record heat is ramping up cooling needs, and peak demand



The increasing use of ACs has put strains on grids, with over 40 countries, representing about half of global energy demand, reaching new peak electricity demand records, and many others suffering blackouts.

Source: IEA Energy Efficiency 2024

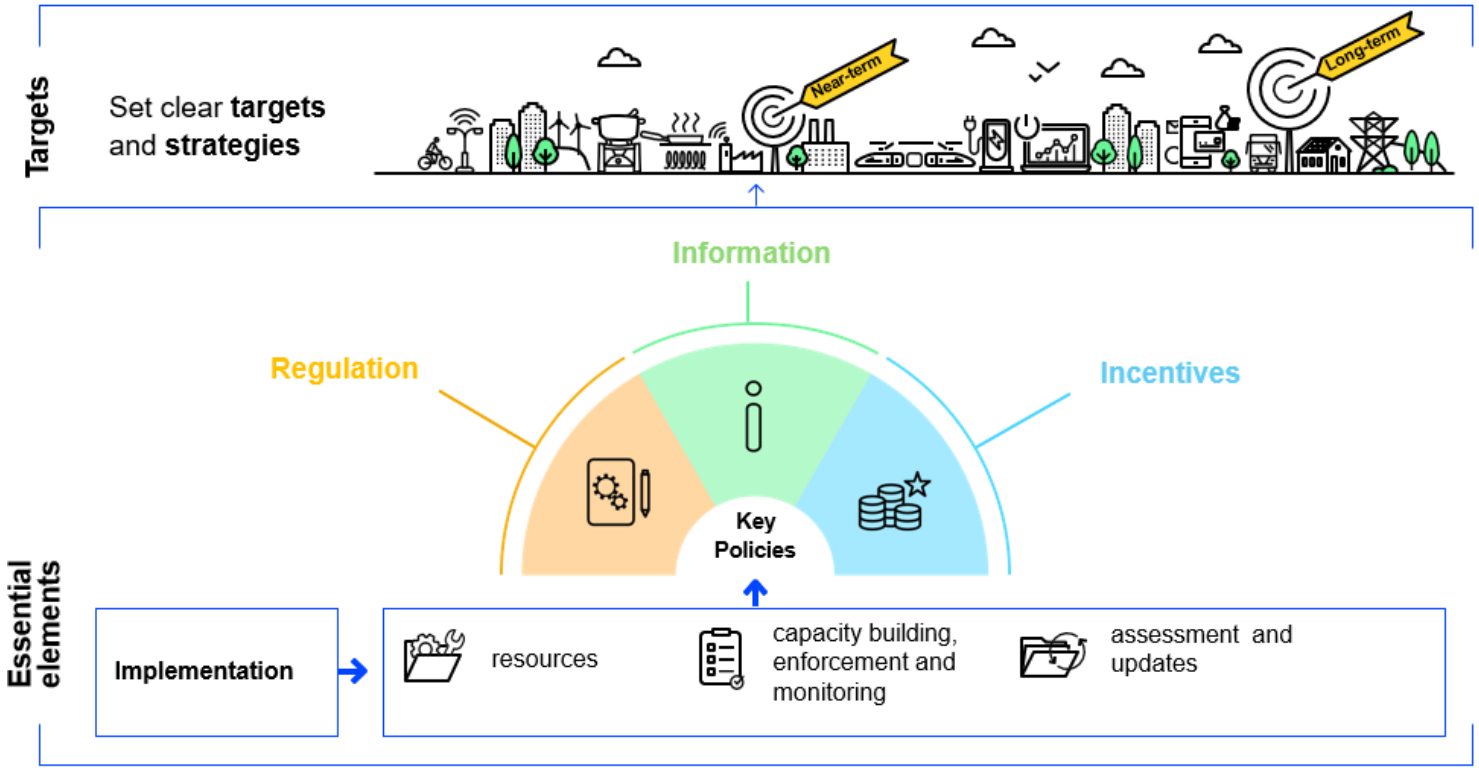
The 4% rate of progress has been achieved before



Even though progress has slowed globally several countries and regions are accelerating progress
This gives us hope it can be done again by more countries

Source: IEA Energy Efficiency 2024

IEA policy toolkit provides practical advice for policy implementation

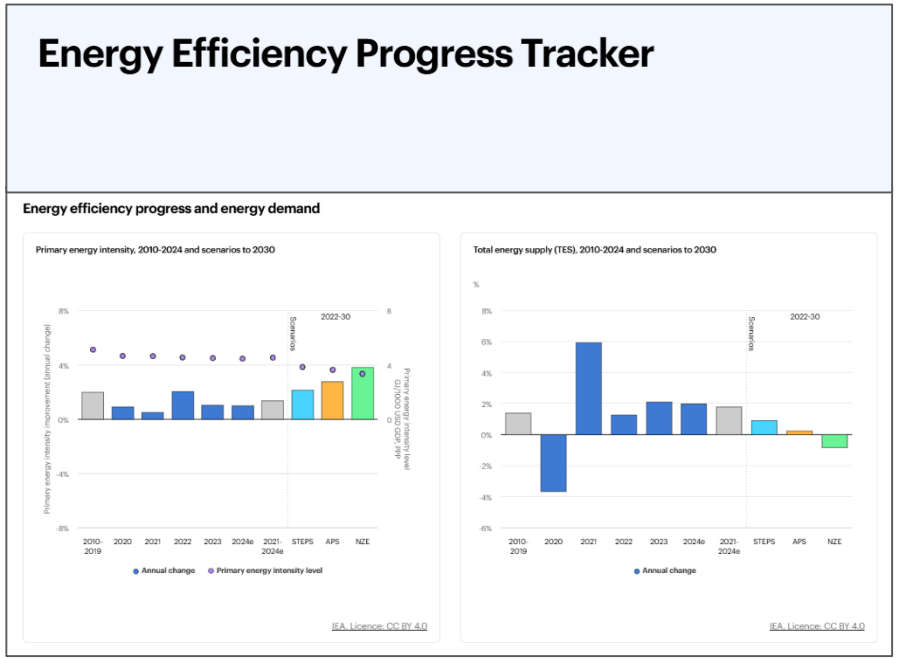


Comprehensive policy packages are the most effective tool for governments in delivering strong efficiency gains across end-use sectors

Source: IEA Energy Efficiency 2024

IEA Tracking of COP28 Goals

IEA COP28 progress tracking



Free, accessible data up to 2024 and IEA Scenarios to 2030, including:

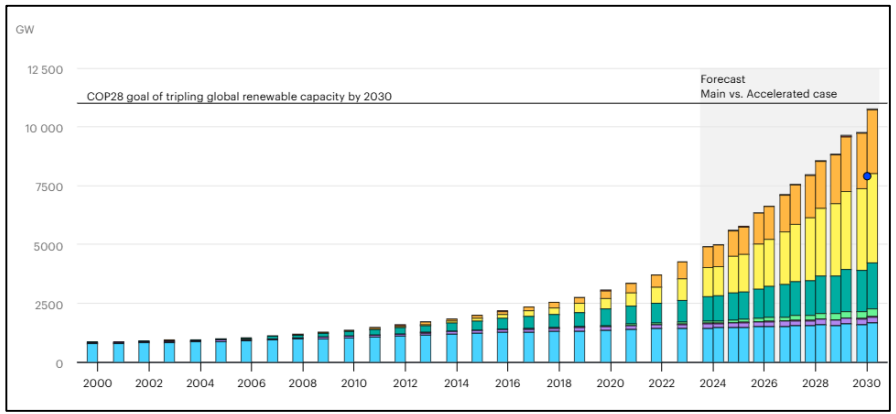
- **Energy intensity progress**
- **Electrification progress**
- **Primary and final energy demand**
- **Financing solutions repository**

Access this, and more: iea.li/efficiency-progress

IEA COP28 progress tracking

Renewable Energy Progress Tracker

Explore electricity, heat and renewable fuels data from Renewables 2024 and renewables ambitions by 2030



Electricity, heat and renewable fuels data from Renewables 2023 and renewables ambitions by 2030:

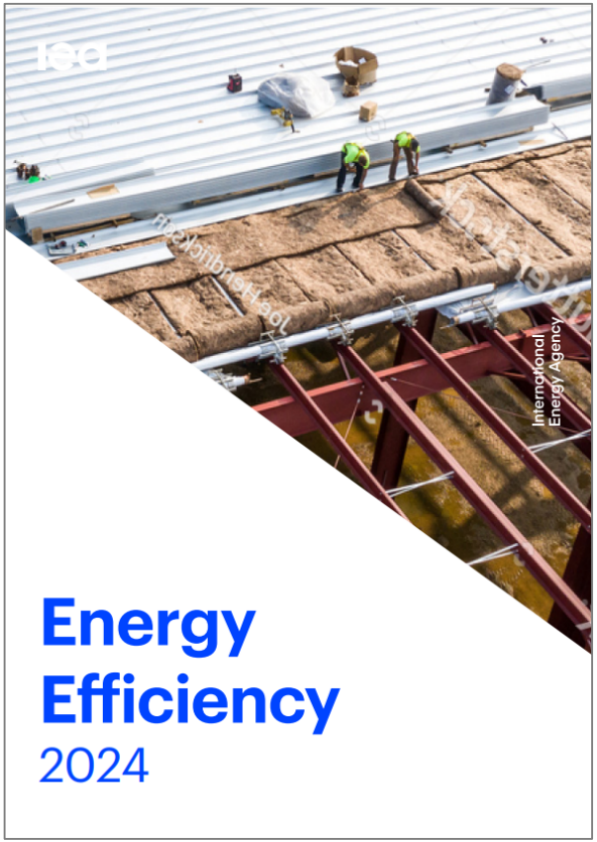
- **Capacity additions**
- **Primary policy and market drivers for utility-scale renewable growth**

Access this: https://www.iea.org/data-and-statistics/data-tools/renewable-energy-progress-tracker

Energy Efficiency 2024

- Read all this and more in today's report:
  - **Special regional focus chapters**
  - **Spotlights on key issues**
  - **Recommendations for early action**

- Download the report at iea.li/efficiency24



COP29 Highlights from the text of the Agreement

7. Calls on all actors to work together to enable the scaling up of financing to developing country Parties for climate action from all **public and private sources to at least USD 1.3 trillion per year by 2035**.

8. Reaffirms, in this context, Article 9 of the Paris Agreement and decides to set a goal, in extension of the goal referred to in paragraph 53 of decision 1/CP.21, with developed country Parties taking the lead, of **at least USD 300 billion per year by 2035** for developing country Parties for climate action:

(a) From a wide variety of sources, public and private, bilateral and multilateral, including alternative sources;

(b) In the context of meaningful and ambitious mitigation and adaptation action, and transparency in implementation;

(c) Recognizing the voluntary intention of Parties to count all climate-related outflows from and climate-related finance mobilized by multilateral development banks towards achievement of the goal set forth in this paragraph;

15. Underscores the critical importance of significantly reducing the cost of capital and increasing the mobilization ratio of finance mobilized from public sources by 2030.