

ENERGY TRANSITION TO NET ZERO

PERSPECTIVES FROM COP28 PANELS



COP28
UAE

بنك أبوظبي الأول

FAB
First Abu Dhabi Bank

Strategic Pathway Partner

The series of COP28 outcome papers represent the key insights and discussions from FAB's hosted panels and roundtables during COP28. They are not intended to provide a comprehensive overview of the topics covered.



CONTEXT

The **global energy transition is critical in addressing climate change** and achieving the Paris Agreement's goal to limit the increase in the global average temperature to 1.5°C degrees. This massive undertaking involves shifting from fossil fuels to renewable sources like solar and wind power.

A staggering USD 2 trillion annual investment is needed per year for the energy transition until 2030. The United Arab Emirates exemplifies this commitment with its National Energy Strategy, which aims to triple the contribution of renewable energy and investment between AED 150 and AED 200 billion by 2030 to meet the country's demand for energy. The UAE financial sector announced that it will mobilise AED 1 trillion in sustainable finance by 2030. Globally, a more ambitious objective of bringing in USD 125 trillion over the next three decades for green energy transition underlines the scale of financial commitment needed.

Highlighting the role of financial institutions in promoting sustainable energy, **First Abu Dhabi Bank (FAB) has set a significant target for reducing emissions intensity within the power generation sector by 64% by 2030 compared to the 2021 baseline.**

KEY FACTS

- Globally, renewable energy capacity has more than **doubled since 2015**¹.
- Solar is now the **cheapest source of energy in the majority of countries**².
- In MENA in 2022, **86% of new power capacity** was renewables³.

¹Carbon Brief (2020) | ²Carbon Brief (2020) | ³IRENA (2023)



CHALLENGES

Global economic fluctuations and geopolitical tensions present significant barriers to consistent and coherent energy policy formulation and implementation. These challenges complicate the investment landscape and can delay the progress of the energy transition.

The transition to renewable energy faces **social hurdles, particularly in terms of acceptance of infrastructures** like wind farms. The “Not In My Backyard” sentiment often impedes the deployment of renewable energy solutions. Overcoming this requires substantial **public engagement and education** to shift perceptions.

Managing energy demand is also a key challenge that includes **reducing consumption in energy-rich regions** like Heathrow (London Airport) while **improving access in energy-scarce areas** such as Sierra Leone (the airport consumes more than this country). This disparity in energy consumption highlights the need for a balanced approach to energy distribution globally.

The transition also put pressure on the supply chains. The escalating **demand for copper in renewable energy systems and electric vehicles** (EVs) highlights a critical resource challenge, emphasising the need for efficient recycling processes and sustainable resource management in the energy transition.

REGIONAL SPECIFICITIES

The Middle East and North Africa (MENA) region is rapidly advancing in renewable energy. This progress demonstrates the **region's potential to become a global leader** in renewables, leveraging its natural resources and strategic investments to gradually shift from fossil fuels. ACWA Power's project closures, involving over 12 GW of capacity and \$10 billion in financing, highlight the scale of investments and the potential for significant capacity increases in renewable energy.

The stark contrast between developed and developing nations in terms of energy access underscores the need for region-specific energy transition strategies. Modern energy solutions are essential to **replace traditional biomass usage** in underprivileged regions. The International Finance Corporation's mobilization of **\$11 billion in southern investments from the GCC** is an important aspect of the regional investment strategies.



OPPORTUNITIES AND INNOVATIVE SOLUTIONS

Integrating renewable sources like solar and wind into existing **power grids** is key. This process necessitates **grid modernisation including smart grid technologies** to handle the intermittency of renewable sources and ensure stable energy supply.

Financial institutions have a crucial role in funding this transition. Significant investments are needed to **support large-scale renewable energy projects** and **nascent technologies like hydrogen projects**. Partnerships across sectors are essential to overcome technical, financial, and regulatory challenges.

In a move to accelerate the transition in emerging markets, the International Finance Corporation (IFC) has partnered with the International Renewable Energy Agency (IRENA), employing an innovative approach of **blended concessional finance**, which has successfully leveraged an additional USD 17.2 billion in financing.

Hydrogen's potential as a clean energy carrier and the role of CCS in industrial processes represent important areas for future development.

In a notable advancement within the renewable energy sector, **HIROC, a technology company focusing on low-cost and zero emissions hydrogen production, has introduced an innovative approach to hydrogen production through the electrolysis of hydrocarbons**. This method significantly reduces the energy requirement for electrolysis, utilising only one fifth of the energy typically needed. It offers not only a more efficient way to produce hydrogen but also synergies with the management of methane flaring. This innovation could be a crucial step forward in harnessing hydrogen's potential as a clean and sustainable energy source, particularly with advancements in electrolysis techniques.



PRIORITIES AND NEXT STEPS

- **Incentive programmes and policies: Policy reforms** and digital permitting systems are crucial to **simplify regulations and expedite renewable energy projects**. These reforms can significantly reduce bureaucratic hurdles and streamline project approvals.
- **Engaging ecosystems:** Engaging stakeholders early in the process is vital. This involves **working with all stakeholders including local communities and environmental groups** to address potential concerns and facilitate **smooth project development**.
- **Renewable financing:** Financial institutions, particularly banks, must **continue to shift their focus towards renewable activities**, providing the necessary support and financing for the transition.



COP28 PERSPECTIVES

- In one of the most widely supported initiatives, **118 governments pledged to triple the world's renewable energy capacity by 2030.**
- For the first time, nearly 200 countries agreed on a deal calling on all countries to transition away from using fossil fuels. The deal calls for nations to accelerate efforts towards the phase-down of unabated coal power.
- Global Decarbonization Accelerator was announced, prioritising decarbonisation across energy-producing and heavy emitting sectors. Three key pillars:
 - a. Rapidly scaling the energy system of tomorrow
 - b. Decarbonising the energy system of today
 - c. Targeting methane and other non-CO2 greenhouse gases
- COP28 Presidency Oil and Gas Decarbonization Charter: 52 oil and gas companies committed to:
 - a. Eliminating routine flaring by 2030
 - b. Eliminating methane leaks by 2030
 - c. Fully decarbonising operations by 2050

Companies making the pledge represent 40% of global oil production with National Oil Companies representing 60% of signatories, the largest number of NOCs ever to commit to a decarbonisation initiative.

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