

# **INTERNATIONAL OIL COMPANIES AND THE ENERGY TRANSITION**

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# ABBREVIATIONS

<b>ADNOC</b>	Abu Dhabi National Oil Company	<b>IRENA</b>	International Renewable Energy Agency
<b>°C</b>	Degrees Celsius	<b>Mt</b>	Megatonne
<b>CCS</b>	Carbon capture and storage	<b>MW</b>	Megawatt
<b>CCUS</b>	Carbon capture, utilisation and storage	<b>OGCI</b>	Oil and Gas Climate Initiative
<b>CEO</b>	Chief Executive Officer	<b>PV</b>	Photovoltaic
<b>CO<sub>2</sub></b>	Carbon dioxide	<b>R&amp;D</b>	Research and development
<b>EJ</b>	Exajoule	<b>RRR</b>	Reserve replacement ratio
<b>EU</b>	European Union	<b>SDS</b>	Sustainable Development Scenario
<b>EUR</b>	Euro	<b>TPES</b>	Total primary energy supply
<b>EV</b>	Electric vehicle	<b>UK</b>	United Kingdom
<b>Gt</b>	Gigatonne	<b>US</b>	United States
<b>GW</b>	Gigawatt	<b>USD</b>	United States dollar

# KEY FINDINGS

Renewable energy technologies have experienced a breakthrough in recent years, and their deployment has continued to rise despite the uncertainties of the COVID-19 crisis. Similarly, the surge in climate-friendly commitments and the pressure to accelerate the energy transition from investors, consumers and governments have intensified since the outbreak of the pandemic. A rising number of countries have been complying with the decarbonisation targets agreed to in the Paris Agreement, as well as setting pledges to reach net-zero emissions by mid-century.

These circumstances, together with the economic downturn associated with the pandemic (*i.e.*, very low and negative oil prices) have presented significant challenges and threats to the activities of international oil companies. As such, these companies are progressively repositioning themselves in the energy industry, with investments, and commitments on further investments, in renewable energy solutions, energy efficiency, and other clean technologies as well as defining new or more ambitious emission reduction targets. However, this raises the question to what degree these climate commitments and investments in clean technologies indicate that international oil companies are transforming into energy companies to reduce greenhouse gas emissions, at the speed required to limit global warming.

This report addresses this question, by analysing and presenting oil companies' clean energy strategies and investments, as well as climate targets. Results show that, despite the recent announcements of emission reduction targets and engagement in renewable energy projects, the companies' actual investments in renewables are still low compared to those in fossil fuels. Oil companies are now competing with a mature renewable industry, which leaves them as small players without a competitive edge over renewable companies. Oil companies are also facing flat-to-declining oil demand, investor scepticism and public pressure on safeguarding the climate and

environment. Moreover, the low oil prices of recent years serve as a reminder of the volatility of markets for oil – and other fossil fuels – and of the geopolitics associated with the current energy system. Many oil companies have woken up to this challenge and are actively developing new lines of business activity. The findings in this paper suggest more could be done, but the proposed adjustments are not in line with the expected energy transition needs.

The Transforming Energy Scenario of the International Renewable Energy Agency (IRENA) shows the path where the world should be headed to create a sustainable future energy system. The global energy system needs to undergo a profound transformation, replacing the present system that is based largely on fossil fuels with one based on renewable energy, not only in electricity generation but also in end-use sectors such as industry and transport. Oil companies could acknowledge this in their business decisions and adjust their lines of activities and investing accordingly. For example, as a capital-intensive industry, they could play a critical role in filling the gap in renewables investments that needs to be covered in the next several years to achieve climate targets. The challenge is two-fold: to be able to adapt to the energy transition, as well as to evolve in ways that do not simply support the decarbonisation of the energy system, but also perhaps even lead it.

Among the key decarbonisation tools now featuring high in countries' priorities, there are a few options in which oil companies would have a competitive advantage:

- **Hydrogen.** This is an attractive fuel source, which can have different applications, such as for transport, heavy industry and power and heating, where established renewables (*i.e.* solar and wind) cannot deliver the necessary heat. Hydrogen is one of the new markets in which oil companies could establish themselves thanks to their existing expertise in transporting and selling gas.

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