



9th Annual

Sustainable Innovation Forum 2018

9-10 December 2018

Vienna House Easy Angelo, Katowice, Poland

cop-24.org

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Climate Action

SUSTAINABLE INNOVATION INSIGHTS: ENERGY TRANSITION



Current Landscape

China, the United States, and the nations that make up the European Union are the three largest emitters of the world's greenhouse gas emissions on an absolute basis.

Per capita greenhouse gas emissions are highest in the United States and Russia. [LINK](#)

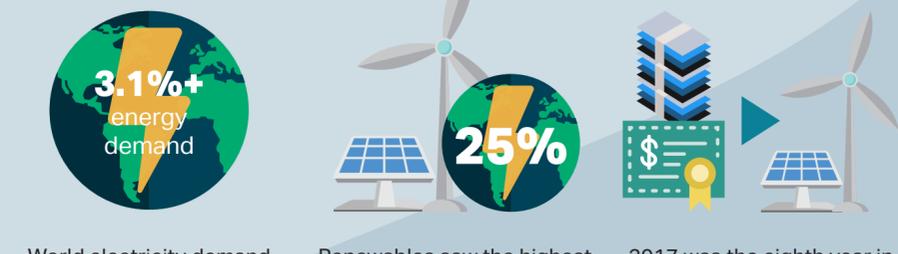


Global energy demand increased by 2.1% in 2017, compared with 0.9% the previous year and 0.9% on average over the previous five years.

More than 40% of the growth in 2017 was driven by China and India; 72% of the rise was met by fossil fuels, a quarter by renewables and the remainder by nuclear. [LINK](#)

Global energy-related CO2 emissions grew by 1.4% in 2017, reaching a historic high of 32.5 gigatonnes (Gt), a resumption of growth after three years of global emissions remaining flat.

The increase in CO2 emissions was not universal. While most major economies saw a rise, some others experienced declines, including the United States, United Kingdom, Mexico and Japan. [LINK](#)



World electricity demand increased by 3.1% in 2017, significantly higher than the overall increase in energy demand. Together, China and India accounted for 70% of this growth. [LINK](#)

Renewables saw the highest rate of growth of any energy source in 2017. Renewables now account for 25% of global electricity generation. [LINK](#)

2017 was the eighth year in a row that global investment in renewables exceeded US\$200 billion. [LINK](#)

The 4Ds of the energy transition

Decarbonisation	Decentralisation	Digitalisation	Decreasing consumption
A lower-carbon energy system requires the rapid development of renewable energies	Our relationship with energy needs to be rethought. Decentralised production methods such as solar installations will enable renewable energy to be generated locally	Digitalisation requires the development of new connected technologies; from remote control of heating or lighting to the interconnection of devices	Establishing new services and technologies enables energy efficiency to be increased in every sector, for businesses and individuals. Intelligent networks, connected objects and artificial intelligence LINK

Drivers, Trends and Shifts

Corporates Rise China Dominates

Up until now, the renewable revolution has been led by energy developers and generating companies who were able to build renewable capacity with the help of government tariffs and subsidies. Now we are seeing consumers looking for ways to become 100 percent renewable in the energy they use; most obviously in the case of global corporations. LINK	In 2017, 40 per cent of global investment in clean energy occurred in China, and they represented about half the market for new electric cars. LINK

Countries Set Targets

The Kingdom of Saudi Arabia Vision 2030 Plan aims to reduce dependence on hydrocarbons to a point where they could "live without oil by 2020"	The UAE announced it intends to invest US\$163bn in projects that will generate 50% of nation's power needs from renewables by 2050	
France & the UK announced ban on sale of new diesel and petrol cars by 2040. France plans to end oil & gas production by 2040	The UK has announced plans to phase out coal-fired plants by 2025	Germany's Energiewende has seen a rapid increase in deployment of renewables, and plans to phase out of nuclear by 2022 LINK

Decentralised energy rises in US

Due to climate change related events like hurricanes, increasing consumer choice in energy markets and the integration of digital technologies, there is a renewed interest in micro-networks and distributed energy solutions in the US. [LINK](#)

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9th Annual **Sustainable Innovation Forum 2018**

Do you want to find out more about trends and market shifts in energy transition from global leaders? Join Climate Action at the **Sustainable Innovation Forum on 9-10 December 2018** in Katowice, Poland during UNFCCC COP24.

The Forum will welcome over 600 attendees representing the private sector, policy makers and UN agencies, cities, multilateral organisations and investors. This two day event will include a dynamic mix of thought leadership, deep-dive discussion and debate, capacity building and networking on four key drivers; Circular Economy, Energy Transition, Sustainable Mobility and Climate Finance.

For more information visit: cop.climateactionprogramme.org
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