

# The Future of the Global Energy Sector

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## As economies recover, energy demand set to rebound



As economies return to growth in 2021, so energy demand climbs back above 2019 levels. Renewables have been resilient throughout the crisis, but the rebound is affecting demand for all fuels and technologies

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#### Wind and solar PV see record growth



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# Global energy investment is set to rebound in 2021



While the volume of investment is expected to return to near the pre-crisis level, the composition of energy investment has shifted towards the power and end-use sectors, and away from fuel production

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# Upstream investment is shifting towards state-owned companies



Upstream oil and gas investment is set to rise about 10% in 2021, but spending remains well below pre-crisis levels; while cost control is pervasive, some NOCs are looking to invest counter-cyclically and gain oil and gas market share

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## While coal is down, it is not out of the investment picture



While FIDs for coal-fired power plants are down 80% from 2015, there was an uptick in go-aheads for new plants in 2020, largely due to a lowering of restrictions in China as well as several projects elsewhere in Asia

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# Clean energy spend by oil and gas companies is starting to pick up



Emerging oil and gas company transition strategies include a wide range of approaches; project commitments for 2021 point to a share of capital investment in clean energy rising to more than 4%, if maintained through the year

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## The world is still far from putting emissions into decisive decline



There remains significant near-term uncertainty about how emissions evolve in the aftermath of the pandemic, but as things stand the world is still a long way from realising climate targets.

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### Make the 2020s the decade of massive clean energy expansion



Technologies for achieving the necessary deep cuts in global emissions by 2030 exist, but staying on the narrow path to net-zero requires their immediate and massive deployment.

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### Drive a historic surge in clean energy investment

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Annual clean energy investment more than triples by 2030 in the NZE scenario, driving an average 0.4% per year increase in global GDP to 2030 & speeding the recovery from the COVID-19 shock

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# Clean energy jobs will grow strongly but must be spread widely



By 2030 there are 14 million jobs created in global energy supply, and a further 16 million in clean energy end-uses; but inclusive policies are needed to support reskilling & diversification in fossil-fuel dependent communities

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# Address emerging energy security risks now



New energy security concerns emerge, and old ones remain; governments need to proactively plan for energy security risks related to market concentration, critical minerals and electricity systems.

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#### Set near-term milestones to get on track for long-term targets



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