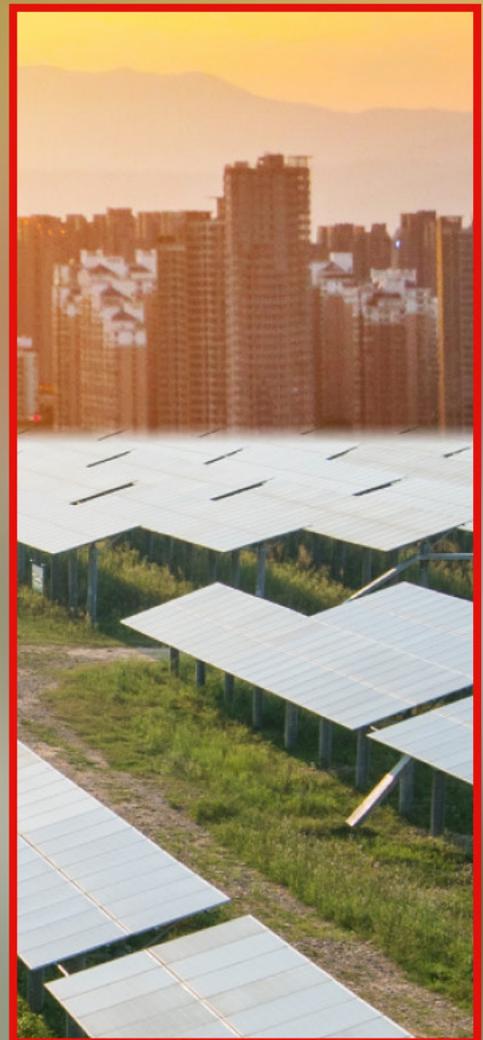


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Energy in 2022

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Energy in 2022: transition time

Key forecasts

- Global energy consumption will rise by 2.2% as economies recover from the impact of the pandemic. All types of energy, apart from nuclear power, will benefit.
- Energy prices will stay firmer than in recent years, as demand recovers and supply bottlenecks continue to disrupt power generation.
- Many energy companies will need to undertake an urgent review of their strategies in 2022, as governments and investors ramp up pressure to cut emissions.

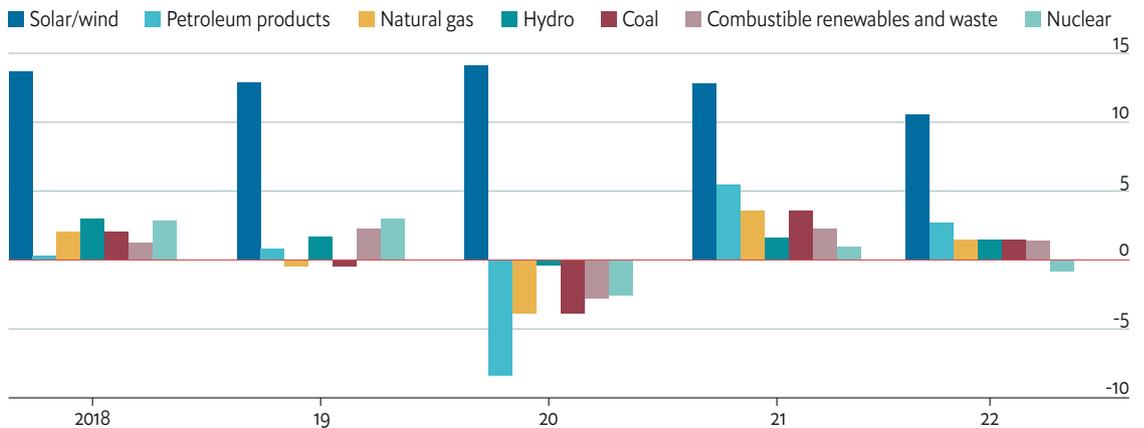
Global energy consumption will rise by 2.2%

In 2022, the overall picture for the energy sector will be one of growth, as economies recover from the impact of the coronavirus (Covid-19) pandemic. Total energy consumption across the 69 countries covered by EIU’s forecast will rise by 2.2%, to reach 13,410m tonnes of oil equivalent (mtoe). That is higher than in 2019, compensating for the decline in consumption seen during the pandemic. However, it is also a slowdown from the rebound in 2021, as energy consumption gradually normalises. Much of that demand growth will come through the power sector, as the electrification of the global economy (from digitalisation to transport) continues.

Nearly all parts of the energy sector—even coal, which was on the slide before the pandemic struck—will see consumption rising in 2022. Coal consumption will rise by 1.5%, year on year, almost as fast as natural-gas consumption (which will be subdued by supply problems in the first half of the year). Oil consumption, which was the area of the economy worst hit by 2020’s economic crunch, will rise by 2.7%. Solar and wind power will soar by 10.6%. The sole exception to this period of uplift will be

Solar and wind soar, while nuclear falls

(world* energy consumption; % change)



Sources: International Energy Agency; EIU.

*Aggregate of 69 major economies.

the nuclear power industry, where consumption will fall by 0.8%. Many of Japan's reactors have not yet restarted following the Fukushima disaster in 2015, while many of the new plants being built in India and China are not yet operational.

Energy prices will stay firmer

Stronger energy demand will support high prices, at least compared with the years leading up to the pandemic. Assuming that the current OPEC+ production deal remains in place, we forecast that oil prices will average US\$78.5/barrel in 2022, after averaging an estimated US\$71.7/b in 2021. We have also significantly raised our price forecasts for natural gas and liquefied natural gas (LNG), particularly in Europe, and expect prices to remain high until the second quarter of 2022 as stocks are rebuilt.

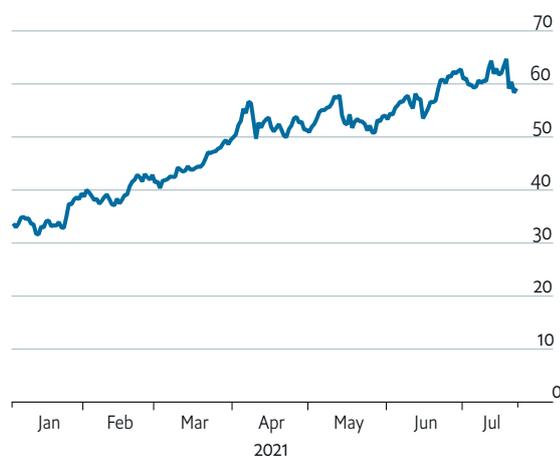
Prices could go even higher if production remains subdued, or could fall if investors pile in to take advantage of the higher prices. The recent energy crises in Europe and China have sparked debates on underinvestment in conventional projects as global funds have embraced sustainable investing. The stakes are particularly high for the OPEC+ economies, most of which are looking to maximise revenue from oil prices in the coming years to fund economic diversification and their energy-transition plans.

Emissions targets will drive new energy regulations

Despite the improving outlook for energy consumption, many companies will need to undertake an urgent review of their strategies in 2022, as the energy transition accelerates and governments try to fulfil pledges made at the UN climate conference (COP26) in Glasgow in late 2021. Among other pledges, 23 countries, including Poland and Indonesia, agreed to phase out coal in the 2030s (for developed countries) or 2040s (for developing ones). Many countries will also pass stricter regulations promoting renewables growth, imposing carbon taxes or encouraging electrification of transport in the year ahead.

In the US, the ambitious climate agenda of the president, Joe Biden, will include tax benefits to

Carbon prices have doubled since early 2021 (ICE December 2021 future; €/tonne CO₂ equivalent)



Sources: Ember; Intercontinental Exchange; EIU.

renewable energy developers and electric-vehicle (EV) buyers, as well as penalties for utilities reliant on fossil fuels. Canada will introduce regulations to limit the carbon-intensity of fuels produced in and imported into the country. The EU is likely to introduce a carbon tax at its borders, adding a levy to emissions-producing products, as part of the EU-wide green recovery programme. China—under fire for its failure to participate fully in COP26—will continue with its “dual-control” campaign to cap energy consumption and limit energy intensity. All these regulations will have a profound and long-lasting impact on the global energy sector, putting fossil-fuel companies under pressure in 2022.

Green-financing pledges will pose a threat to fossil fuels

Securing private-sector financing will also become harder for fossil-fuel companies in 2022. While renewables and energy-saving technology are attracting increasing flows of green financing, emissions targets will also drive divestment. The outlook for oil and gas exploration, as well as coal mining, is particularly uncertain. COP26 produced a non-binding promise between more than 20 countries, including the US and Canada, to stop funding foreign fossil-fuel projects by the end of 2022. Most Asian countries declined to sign the pledge, but China has separately pledged not to invest in foreign coal projects. Both governments and private financiers will therefore be wary of approving new auctions or projects, and some may even cancel planned projects.

This will raise the risk of stranded assets (arising when companies can no longer attract investment for extraction), particularly in fossil-fuel businesses. Many of the oil majors are already starting to divest from oil and gas projects in Africa, Latin America and elsewhere because of the energy transition. The same is even more true of coal: Brazil's Vale is among those set to sell assets (see box). Other companies, such as Anglo-Dutch multinational Shell, are arguing that they need their oil and gas revenue in order to invest in greener fuels. Higher fossil-fuel prices in 2022 may help them to convince their shareholders, but pressure is intensifying.

What to watch for in 2022

The US will approve budget and infrastructure laws:

Programmes to modernise the country's energy systems and combat climate change form an integral part of Mr Biden's infrastructure and budget reconciliation bills. We expect the bills to be made law by end-2021, after compromises are made on some sticking points. Together, the two bills will expand the reach of wind and solar plants to large cities and make the grid less susceptible to blackouts (such as the one witnessed in Texas in early 2021). The bills will also fund the development of an expansive EV-charging network.

The Nord Stream 2 pipeline will open: We expect the Nord Stream 2 pipeline to start operations in 2022 after getting the necessary approvals from Germany and the EU. The pipeline will connect Russia through the Baltic sea to Germany, which already gets 35% of its natural gas from Russia. Although Ukraine insists that the existing pipeline, which passes through its territory, still has spare capacity, the new pipeline should help to moderate Europe's sky-high gas prices.

Coal divestment will gather pace: The European Investment Bank (EIB) has said that it will stop investing in coal projects from 2022, as well as most oil projects. Since 2013 the EIB has funded around US\$15bn in fossil-fuel projects. The Asian Infrastructure Investment Bank (AIIB) has hinted that it may also bar investment in coal power plants from 2022, although it has left the door open for other coal-related investment.

India will miss its renewables targets: One notable achievement of COP26 was getting India to set a target to attain net-zero emissions, although the date of 2070 is significantly later than hoped for. There is little doubt that India's energy

transition will be difficult. Despite government efforts and investor interest, India is likely to miss the targets set in 2015, which aimed for power capacity from non-hydro renewables to top 175 GW by 2022. We forecast that capacity will reach 112 GW.

New technologies

Unlike conventional hydrogen, which comes principally from natural gas, green hydrogen can be generated from electrolysis, using water and renewables-generated electricity, and other low-carbon fuels such as biomass. However, the high cost of extracting **green hydrogen** has made it unattractive for commercial use. In 2022 more government support (in China, the EU and elsewhere) and business interest in clean-fuel technologies will spur investment that could eventually bring this cost down. Green hydrogen could help sectors from industry and transportation to power generation to reduce emissions quickly.

One application could see green hydrogen combined with carbon dioxide to produce **synthetic liquid fuels (e-fuel)**. When burnt, synthetic fuels only leave water and heat as residue, with a minimal lifecycle carbon footprint. Unlike electric power, they can also be used with existing vehicles and refuelling infrastructure. Porsche and Siemens, two German manufacturers, have collaborated with other international companies to set up an e-fuel manufacturing plant in Chile, which is expected to start production in mid-2022. Progress in e-fuel technology could eventually provide a greener option for the aviation industry, which has no easy solutions to cut oil use.

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