

Power

Potential impact of reductions:

~ 3.8 Gt CO₂

Overall progress rating:

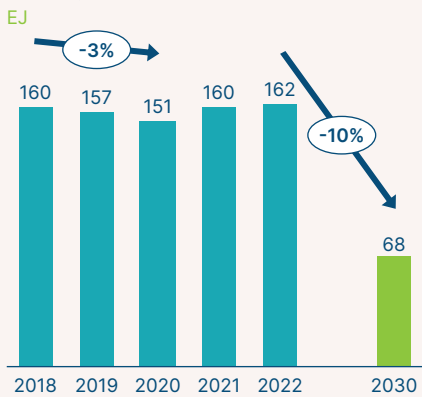
Mixed

State of play 2022 & Progress since COP 26

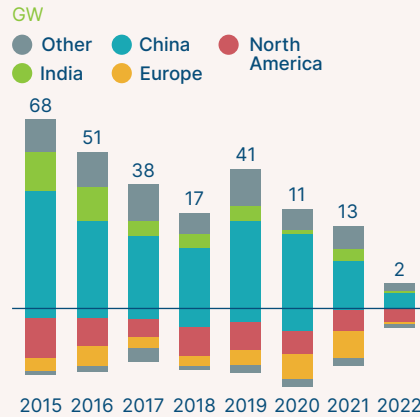
- In response to current soaring gas prices, geopolitical energy security concerns and underperformance of European nuclear and hydro power fleets, coal consumption is set to increase 0.7% in 2022 to match the annual record set in 2013. Coal continues to represent most emissions from the energy sector. However, the global coal pipeline is shrinking, and no countries who backed no new coal at COP26 have officially reversed this stance.¹
- Wind and solar now account for over 10% of total global electricity generation, and over 90% of all new capacity additions.² The global energy crisis has reinforced countries' ambitions for the scale-up of renewable energy.
- Despite some increasing input prices over the past year, wind and solar are increasingly the cheapest generation source – they are now cost-competitive against new and existing fossil for bulk electricity provision in countries representing 90% and 66% of global electricity generation.³

Coal

Power sector Coal vs 2030 IEA's 2030 target for reaching its 2050 Net Zero Emission scenario⁴



New and retired coal power plants⁵

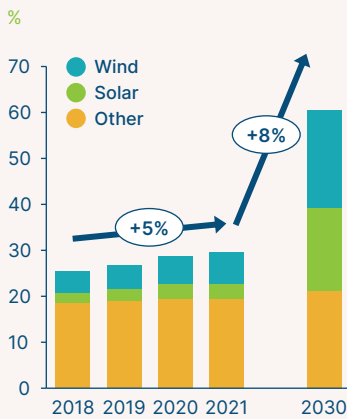


Progress & Bottlenecks

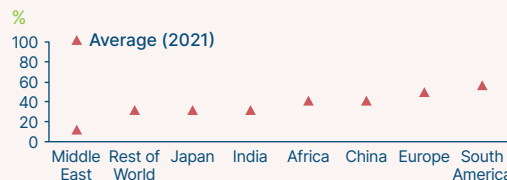
- Coal power generation is currently at a plateau, but it must decline 7% per year to match the IEA's Net Zero scenario for 2030.
- The global coal power plant fleet needs to shrink faster: plant retirements in Europe and North America have to date been overcompensated by new plants in Asia, primarily in China.
- Though the global new coal plant pipeline is shrinking, the focus will need to shift to retiring existing assets.

Renewables

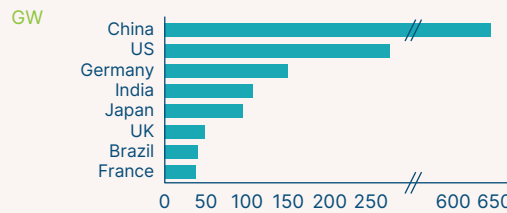
Renewables share in electricity generation and IEA 2030 NZE⁶



Renewables share in electricity generation (including hydro)⁷



Total wind and solar capacity (2021)⁸

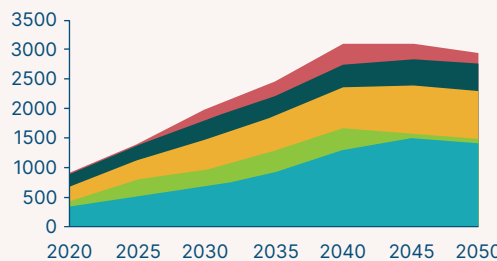
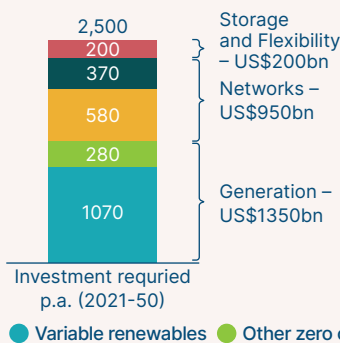


- New renewable volumes are unprecedentedly high with record additions in 2021 of 100 GW of wind and 180 GW according to BNEF.
- European countries have increased renewable targets in response to war in Ukraine.
- Key markets like Europe and US will need to accelerate permitting of renewables, and roll out grid infrastructure to meet their ambitious renewable targets.
- Competitive de-risking mechanisms (e.g. contracts avoided via auctions) remain key to renewable build out.

Finance

Global annual investment: Power

USD billion per annum



- Investments into clean electricity have to more than double by 2030 compared to current baselines.
- Alongside investment in renewables, the ETC estimates that funding of \$25-50bn/year could be required to phase out existing coal in key countries this decade.