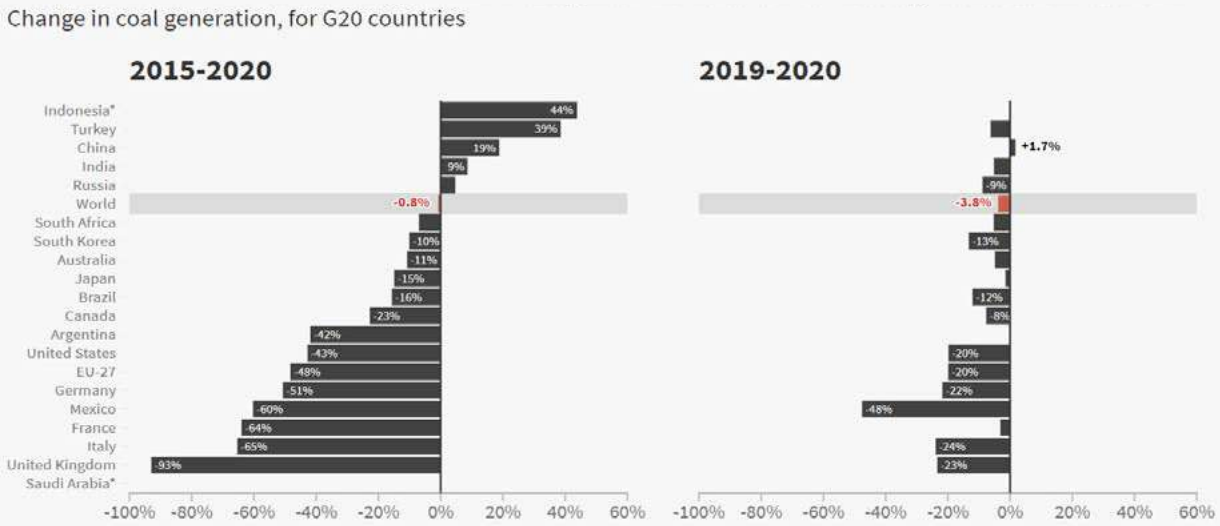
Coal is collapsing in the OECD, but has not yet finished growing in Asia



*For Indonesia and Saudi Arabia, 2019 is used as no 2020 data exists.
Ember's Global Electricity Review, March 2021.

Many OECD countries are seeing coal collapse. EU-27 coal generation has almost halved since 2015 (-48%), and the US saw a similar fall (-43%). Smaller, more recent falls have happened in Japan, South Korea, Australia, Canada and Mexico.

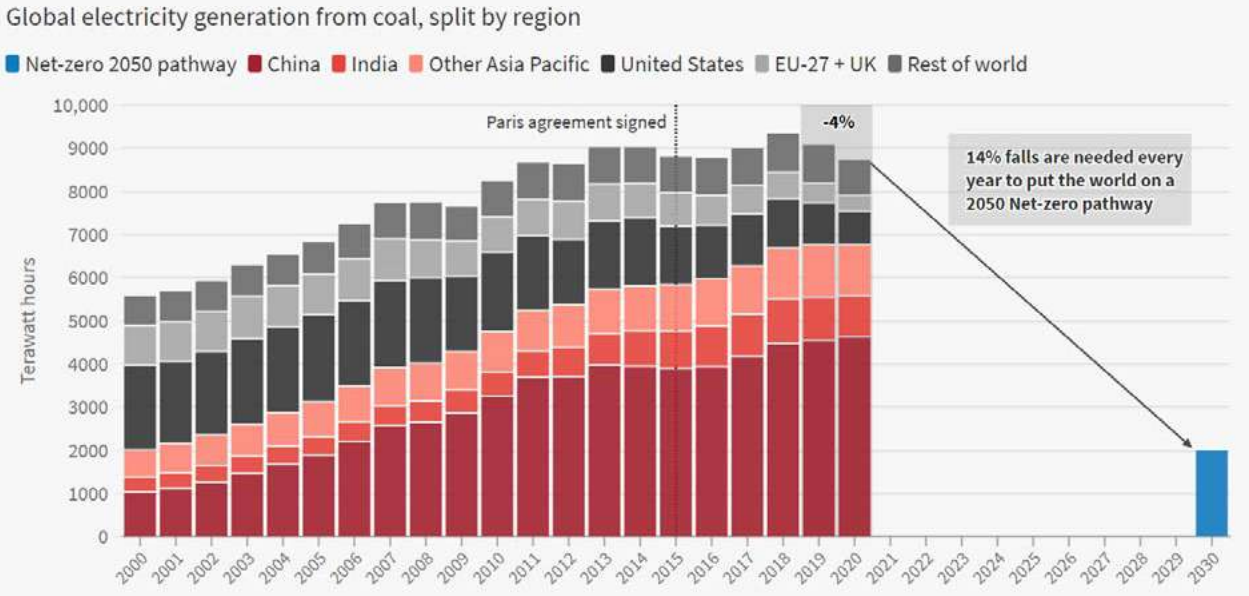
However, these falls over the last half-decade were almost entirely offset by rises in Indonesia, Turkey, China and India. That meant, even including 2020's record 4% fall, global coal generation was only 0.8% lower in 2020 than in 2015.

OECD countries saw a combined 23 GW reduction in coal capacity in 2020. This trend means that across the OECD and EU-28, 56% of coal capacity has either been retired since 2010, or is scheduled to retire by 2030. The story in China is very different, where in 2020 alone 9 GW of coal plant retirements were offset by the opening of 39 GW of new coal capacity.

ARE WE ON TRACK FOR 1.5°C?

The world's transition out of coal power is happening far too slowly to avoid the climate crisis. Coal generation fell a record 4% in the pandemic year of 2020, but that's still insufficient to meet climate targets. With 77% of the world's coal electricity in Asia, all eyes are on how quickly it can reduce coal generation. Meanwhile fossil gas dominates elsewhere in the world. In 2020, 61% of the world's electricity still came from fossil fuels.

Coal generation fell a record 4% in 2020, but that's still insufficient to meet climate targets



Net-zero pathway is from the IEA's first net-zero modelling in their 2020 World Energy Outlook, and for 2030 coal, is quite consistent with majority of the IPCC's 1.5 degree scenarios.

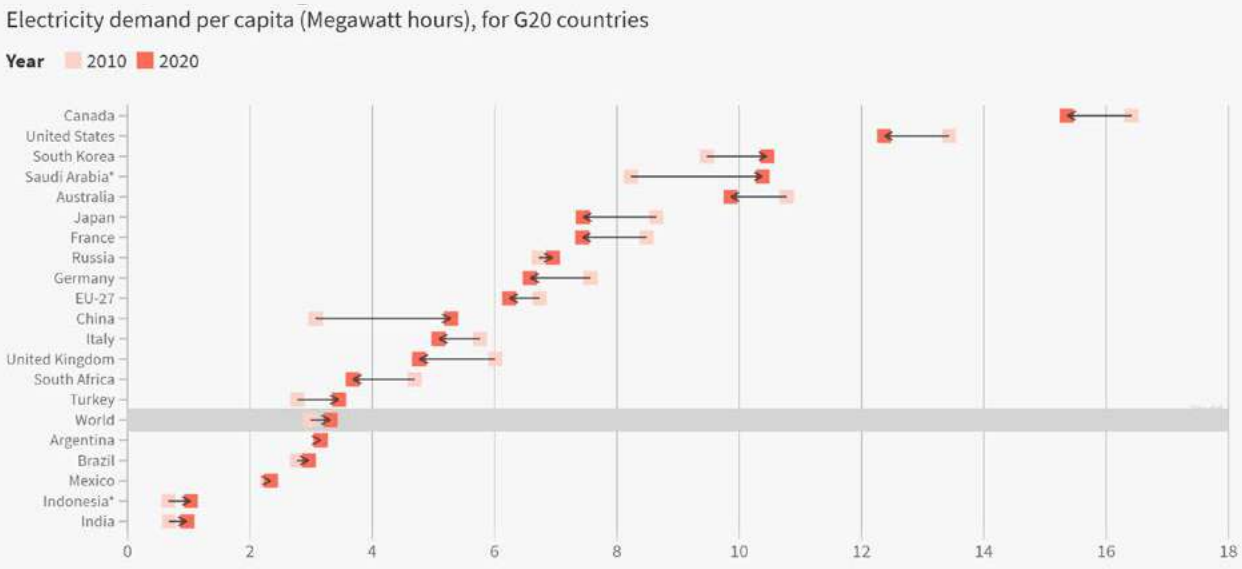
Climate Analytics' analysis of IPCC 1.5 degree scenarios show that OECD nations should end coal use entirely by 2030, and all coal-fired power stations must be shut by 2040 at the latest. Those dates were also reiterated by the UN Secretary General in March 2021.

The IEA's 'Net-Zero 2050 pathway' scenario from their 2020 World Energy Outlook is also fairly aligned with the IPCC 1.5 degree scenarios. It shows global unabated coal generation must collapse by around 80% from 2020 to 2030.

That implies falls of around 14% per year, compared to just a 4% fall in the pandemic year of 2020. This is particularly important because coal-fired electricity generation alone currently contributes around 30% of global CO2 emissions, according to the IEA. Although coal is collapsing in the OECD, it's not yet collapsing in Asia. The share of the world's coal generation in China increased from 44% in 2015 to 53% in 2020. For Asia as a whole, it has now risen to 77%.

The world's transition out of coal power is happening far too slowly to avoid the climate crisis. What's more, the IEA even anticipates coal generation will rebound in 2021 as electricity demand picks up again.

Asia's future electricity demand growth has huge implications for coal in the next 10 years



China's rise in electricity demand is unparalleled, rising by 71% over a decade. China's per capita electricity demand is now higher than the UK and Italy. Although demand in India and Indonesia has risen substantially, it is still only a third of the global per capita rate. South Korea has one of the highest per capita rates in the world, twice that of China's and ten times India and Indonesia's per capita levels.

Fossil-free electricity will meet some of the electricity demand growth, but the extent of this remains to be seen and the risk of falling back on fossil fuels looms large.

Asia's electricity demand growth is perhaps the biggest uncertainty of what will happen to global coal generation in the next 10 years.