

The European energy crisis and war in Ukraine mean coal demand is up. Is this cause for concern or simply the bounce of a dead cat?

One of the side effects of this winter's energy crisis was a resurgence in coal demand. A rapid post-Covid economic recovery, coupled with tight natural gas supplies, caused global power generation from coal to soar by 9% in 2021, according to the International Energy Agency, surpassing 2019 levels.

The ongoing war in Ukraine, which has seen a Europe-wide drive to get off Russian gas, has led analysts to further revise up coal projections. The current forecast from *Energy Monitor's* parent company, GlobalData, suggests power sector coal demand is set to reach unprecedented heights by 2023, beating a previous record set in 2018.

Should upwardly revised coal projections trigger concern in climate policy circles – or does a structural decline in coal markets mean we are simply witnessing a short-term recovery, what economists call a 'dead cat bounce'?

Changing attitudes to coal

Political attitudes to coal are shifting across Europe. Václav Bartuška, the ambassador-at-large for energy security for the Czech Republic – a country reliant on Russia for 90% of its gas – recently suggested that coal will now “stay longer” than the country's 2033 phase-out date.

Elsewhere, French utility EDF has discussed the possibility of keeping the UK's 2,000MW West Burton A coal-fired power plant open beyond its September 2022 closing date, while Portugal – which in 2021 became the fourth country in Europe to phase out coal – has floated the idea of reopening the 1,200MW Sines and 600MW Pego coal plants “in case of a situation of emergency for the national electricity system”. In Germany, utility Steag has announced it is postponing the decommissioning of the 460MW coal-fired Herne 4 unit until spring 2023, while other German utilities including RWE and Vattenfall say they are reviewing their coal decommissioning plans.

Most reports are of ongoing discussions, not concrete plans, emphasises Perceval Pradelle from campaign group Europe Beyond Coal. However, data analysed by the German research institute Fraunhofer ISE confirms higher use of the existing European coal fleet in 2022, with a notable uplift since the Ukraine war began at the end of March.

European utilities are switching from gas to coal-fired generation as a result of high gas prices. In the second half of 2021, the replacement of natural gas by coal in the electricity mix was equivalent to 5% of total coal power generation in 2021, reports climate think tank Ember in its 2022 European Electricity Review.

Amidst both rising coal demand and rising coal prices, miners like Glencore and Peabody Energy have reported bumper earnings. South African coal miner Thungela Resources, which was spun off from mining multinational Anglo American in 2021, reported a 601% year-on-year increase in revenue in 2021. Announcing the results, Thungela CEO July Ndlovu said the company had started getting more European inquiries for its coal during the Northern Hemisphere's winter and these inquiries had continued following Russia's invasion of Ukraine.

Drawing the correct conclusion

One of the major takeaways from November's UN climate conference, COP26, was a sense that the world was finally on a pathway to eliminating coal. At least 23 countries made new commitments to phase out coal-fired power generation, including emerging South East Asian economies Indonesia and Vietnam. The final cover text agreed between the 197 COP26 participants included a commitment to "phase down" coal. UK COP President Alok Sharma asserted "the end of coal is in sight".

Is all of this hard-fought progress now under threat? Not likely, says Leo Roberts, from think tank E3G's coal transition team. "Most of the commitments made at COP26 were long-term phase-out commitments into the 2030s and 2040s. Recent upward coal trends are only expected to last over the short to medium term," says Roberts. "No increase in coal consumption is good news, but increased use of existing assets, or delayed closures of power plants, does not represent the same level of risk as building new plants."

Kathrin Gutmann from Europe Beyond Coal says what we are currently seeing is a rise in short-term coal consumption in select European countries as "temporary cover" and the most important thing will now be for European governments to push massive new energy efficiency and electrification programmes as well as renewables deployments, while retaining existing coal phase-out targets.

Long-term structural decline

The key factors that have precipitated coal's structural decline all remain in place. Politicians remain concerned about coal's high carbon emissions. Financiers remain reluctant to invest in new coal projects, given that countries' net-zero pledges mean those projects would likely have to close before their intended lifespan is up, and coal generation remains far more expensive than solar and wind power, particularly so following the war in Ukraine, which has led to soaring gas and coal prices.

"While energy security concerns have been heightened by the current crisis, it has also shown us that fossil fuels no longer represent energy security," says Roberts.

It is a little-known fact that, as well as supplying 27% of crude oil and 41% of gas, Russia also provides 47% of the EU's coal. After the massacre of Ukrainian civilians in the town of Bucha was unveiled to the world at the start of April 2022, the EU imposed a 120-day deadline to get itself off Russia coal. This is more symbol than substance, since the EU is effectively blocking a fuel it hasn't been using that much, but the Ukraine war has reminded policymakers of just how volatile fossil fuel markets can be.

"The current emergency underlines just how vital accelerating the transition away from fossil fuels, including from coal power, is for both energy security and to stop the climate crisis," says Anna Drazkiewicz from the Powering Past Coal Alliance, a coalition of governments and organisations working to advance the transition from unabated coal power generation to clean energy. "The recent rise in coal emissions and the short-term return to coal power [...] are unlikely to change the long-term trend of coal's demise."

Fixating on coal risks forgetting that Europe's response to Ukraine has also been to boost other energy sources. Germany, for example, is building two new LNG terminals, while Belgium has announced it will delay the closure of two nuclear plants. Meanwhile, all across the continent governments have announced plans to enhance renewables: the Netherlands has doubled its offshore wind plans for between now and 2030, France has said it will end subsidies for gas heating, Italy has announced the Mediterranean's first offshore wind farm, and the UK has said that it too will boost its wind plans.

Beyond Europe

Gas prices have increased in the US too, although domestic supplies mean the Henry Hub spot price only doubled between January 2021 and March 2022, as opposed to the 11-fold price increase experienced in Europe. As with the rest of the world, US coal miners have recorded bumper profits in recent months, with Peabody Energy, the world's largest private sector miner, recently recording its most profitable quarter on record.

However, as in Europe, structural difficulties mean the sector's decline in the US also appears inexorable at this point. Coal's share of US electricity generation has fallen from 50% a decade ago to less than 20% today. Some 51GW of capacity is expected to close between 2022 and 2027, followed by a further plunge of 23GW in 2028, according to analyst S&P Global. Even Peabody seems to acknowledge that the writing is on the wall: the company announced in March 2022 it will build 3.3GW of solar capacity and 1.6GW of battery storage on former mining sites, in what is the coal giant's first-ever inroad into the low-carbon economy.

As was the case before the war in Ukraine, climate's biggest coal worry is China, a country

that burns more coal than the rest of the world combined. China's coal consumption rose 4.6% in 2021, the strongest growth recorded in a decade. Data from GlobalData shows that some 82 coal power plants have been fully or partially activated in the country over the past five years. A further 39 are under construction, while 18 more have been announced or are awaiting permits.

President Xi Jinping may have pledged to peak the country's carbon emissions by 2030 and achieve carbon neutrality by 2060, but he has repeatedly failed to set a cap on total energy use or carbon emissions. The country's most recent energy plan, announced in March 2022, included plans to boost power capacity by 800GW – about the size of India's entire electricity supply – and to upgrade 200GW of the existing coal fleet to become peaker plants that supply electricity when power from variable renewables dips.

One of the big climate wins of 2021 was the announcement from China, Japan and South Korea that they would no longer fund new coal plants overseas. For China, this was massive: the country had long been the biggest funder of coal plants worldwide, with these projects forming a significant strand of its Belt and Road Initiative.

China's vast industrial base has been developed off the back of coal-fired power generation, and the significant coal expertise that exists in the country is a big export opportunity.

"There are too many state-owned enterprises specialising in coal construction that compete against each other domestically," says Wawa Wang from the NGO Just Finance International. "It is only natural they would spread abroad."

China has continued to back new coal plants since its pledge to stop doing so in September 2021, finds research from Just Finance International. Some 3.6GW of projects across Indonesia, Bosnia-Herzegovina and other countries, which were announced before the 2021 pledge but had not yet begun construction, are all still in development. Separate analysis by Just Finance International finds that Chinese state-owned enterprises (SOEs) scored over \$18bn of contracts for 67 unidentified overseas coal-fired power projects in 2021 alone, many of which remain at an early stage of development.

Wang adds that Chinese financial institutions are not required to disclose details of loans issued around the world, and as a non-OECD country, China is not obliged to disclose public investment data. "There is also no way of screening utility companies that receive Chinese investment to make sure that financing is not being directed towards coal projects," she says.

A question of timing

However, even for China, the requirements of net zero mean that coal's prospects both

domestically and abroad are limited. The problem from a climate point of view is the timeline for net zero is extremely tight: the Intergovernmental Panel on Climate Change has made it clear that OECD countries must phase out coal by 2030 – and the rest of the world by 2040 – for there to be a good chance of limiting global warming to 1.5°C.

A limited resurgence in coal demand, or a delay to coal phase-outs, may not change the fuel's long-term prospects, but the short window that we have to decarbonise means that even short-term delays to a transition away from coal risk disrupting a safe pathway to net zero by mid-century, Energy Monitor writes.