New coal drops to lowest level in two decades

Press release
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The world added the lowest amount of coal power in 20 years, as 44 gigawatts (GW) of new capacity came online in 2024, a strong signal for the continued decline of the most polluting fossil fuel, according to Global Energy Monitor's definitive annual survey of the global coal fleet.

Now in its tenth year, the "Boom and Bust Coal" report strives to track nearly every coal plant and proposal in the world through the Global Coal Plant Tracker. Data in the tracker show that the coal fleet inched up less than 1% in 2024, for a net increase of 18.8 GW, as 25.2 GW of retired capacity cut into the record low additions — driven by a quadrupling of retirements in the European Union.

The trickle of new operating capacity was mirrored in most of the world by a drying up of the pipeline of under development coal capacity — projects that have been announced or are in the pre-permit, permitting and construction phases.

Just eight countries proposed new coal plants in 2024, down from twelve countries in 2023. In the wealthier 38 countries of the Organization for Economic Cooperation and Development (OECD), coal plant proposals are down from 142 in 2015 to five today.

New coal proposals have also dwindled in Southeast Asia, due to coal phaseout pledges in Indonesia and Malaysia, a moratorium on coal plant permitting in the Philippines, and the development of just transition planning in Vietnam. Indonesia was the only country to propose new coal plants in Southeast Asia in 2024, all captive coal plants.

Latin America is nearing zero coal proposals, with only Brazil and Honduras proposing new coal plants that have lingered for years. In 2024, Panama committed to phasing out coal power in two years, by 2026.

Progress towards phasing out coal from the global power mix continues to be undermined by developments in China and India. Record high construction starts for coal plants in China followed on the heels of the country's 2022 to 2023 permitting resurgence. If not curtailed, the wave of new coal plants could undo President Xi's pledge to strictly limit the growth in coal consumption through 2025.

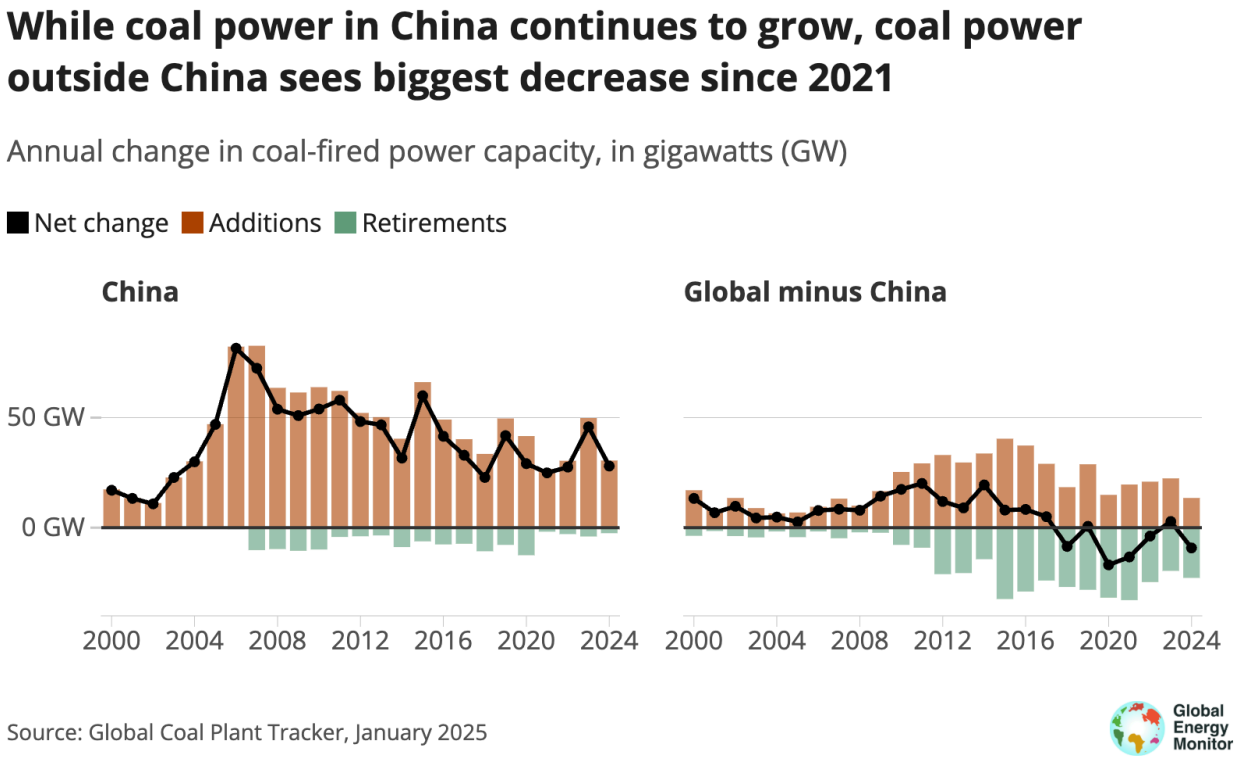
India also proposed a record number of new coal plant proposals in 2024, as the government renewed the country's support for coal power after a multi-year slowdown. The Indian government has committed to "phase down" the use of coal, but has not set a formal timeline for when such a phasedown in generation or capacity will begin.

Christine Shearer, Project Manager of Global Energy Monitor's Global Coal Plant Tracker, said "Coal power set records last year but not the ones industry would like to see. Last year was a harbinger of things to come for coal as the clean energy transition moves full speed ahead. But work is still needed to ensure coal power is phased out in line with the Paris climate agreement, particularly in the world's wealthiest nations."

Key developments of 2024

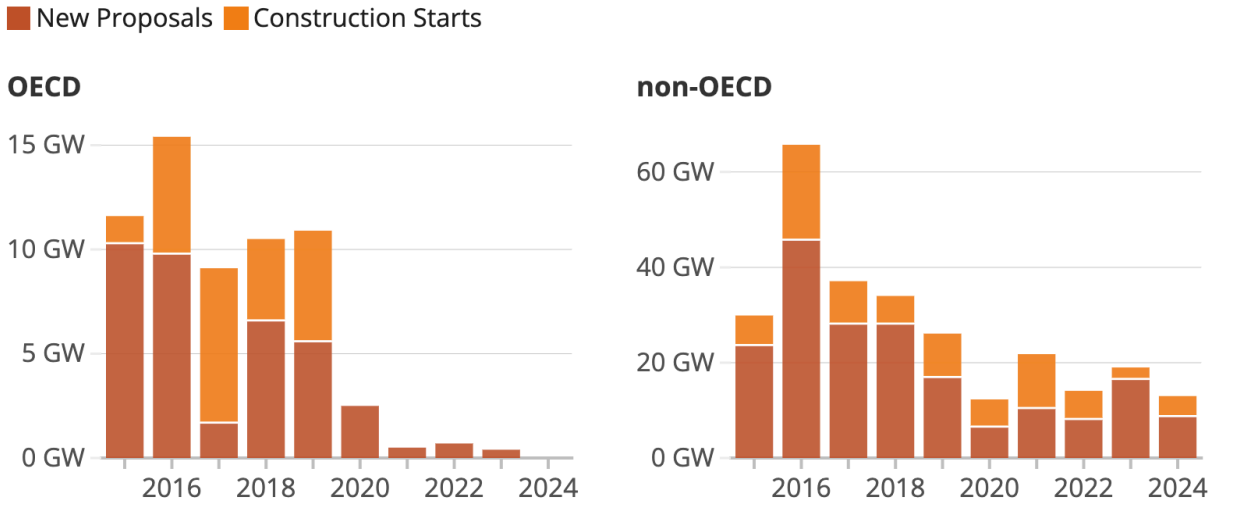
- At 44 gigawatts (GW), 2024 marked the lowest level for newly operating coal power in 20 years, since 2004. The capacity commissioned was nearly 30 GW below the annual average for 2004 to 2024 (72 GW).
- Still, the 44 GW of new coal power capacity added was higher than the 25.2 GW retired, leading to a net increase in the global coal fleet of 18.8 GW. Outside of China, coal power capacity decreased by 9.2 GW, as retirements (22.8 GW) exceeded additions (13.5 GW).
- Retirements in the EU27 increased fourfold over 2023, from 2.7 GW to 11 GW, led by Germany (6.7 GW). Elsewhere in Europe, the UK shut down its last coal plant and became the sixth country to phase out coal power since the 2015 Paris Climate Agreement.
- Retirements in the U.S. fell to 4.7 GW in 2024, the lowest level since 2014. While nearly half of the remaining U.S. coal power capacity is planned to retire by 2035, utilities including PacifiCorp, Duke Energy, and Georgia Power are delaying or withdrawing planned retirements.
- Coal power capacity under development outside of China and India decreased for the tenth year in a row, falling over 80% from 445 GW in 2015 to 80 GW in 2024. Ten countries now account for 96% of coal power capacity development.
- Although OECD countries are moving away from new coal plants, retirements in the region need to more than triple — from 19 GW in 2024 to 70 GW annually through 2030 — in order to meet the international Paris climate agreement. Over 200 GW of that capacity is already over 40 years of age, beyond the average global retirement age of 37 years.
- In Africa, Zimbabwe and Zambia are seeing increases in proposed coal power capacity, much of it sponsored by Chinese companies, despite the government's 2021 pledge to stop building new coal plants abroad.
- At 94 GW, China had the highest year for construction starts since 2015, stemming from its 2022 to 2023 permitting boom. If not curtailed, the wave of new coal plants could undo President Xi's pledge to strictly limit the growth in coal consumption through 2025.
- The year 2024 was also a record year of new coal plant proposals in India (38 GW), with India and China alone accounting for 92% of all newly proposed coal power capacity across the globe in 2024 (107 of 116 GW).

In addition to Global Energy Monitor, the report's co-authors are the Centre for Research on Energy and Clean Air, E3G, Reclaim Finance, Sierra Club, Solutions for Our Climate, Kiko Network, CAN Europe, Waterkeepers Bangladesh, DHORA, Trend Asia, Policy Research Institute for Equitable Development (PRIED), Chile Sustentable, POLEN Transiciones Justas, CEE Bankwatch Network, The Institute of Lawyers for the Protection of the Environment (INSAPROMA), Africa Just Transition Network (AJTN), and ARAYARA.



Outside China and India new coal is decreasing, in both OECD and non-OECD countries

Coal-fired power capacity outside China and India by status, in gigawatts (GW); each region on its own scale, highlighting trend changes



Source: Global Coal Plant Tracker, January 2025
Note: Non-OECD excludes China and India

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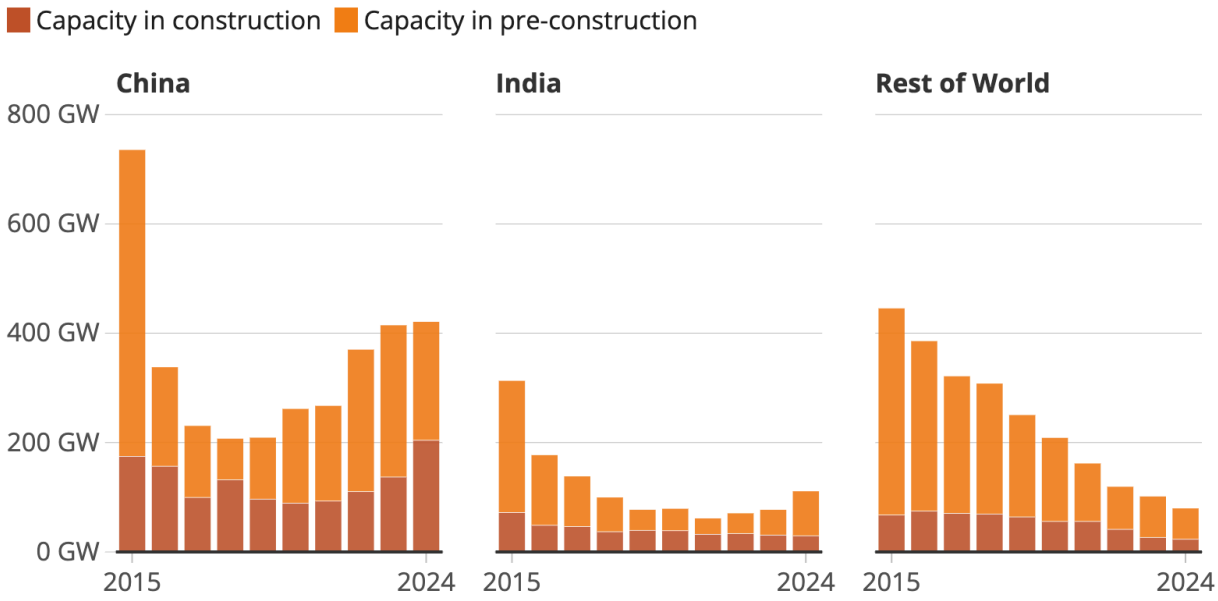
China and India drive increase in coal power capacity under development

Coal-fired power capacity in different states of development, in gigawatts (GW)



Source: Global Coal Plant Tracker, January 2025

About the Global Coal Plant Tracker

The Global Coal Plant Tracker provides information on coal-fired power units from around the world generating 30 megawatts and above. It catalogs every operating coal-fired generating unit, every new unit proposed since 2010, and every unit retired since 2000. The map and underlying data is updated bi-annually, around January and July. Around April and October, partial supplemental releases also cover updates to proposed coal units outside of China.

About Global Energy Monitor

Global Energy Monitor (GEM) develops and shares information in support of the worldwide movement for clean energy. By studying the evolving international energy landscape, creating databases, reports, and interactive tools that enhance understanding, GEM seeks to build an open guide to the world's energy system.

GEM data serves as a vital international reference point that is being used by agencies including: Intergovernmental Panel on Climate Change (IPCC), International Energy Agency (IEA), United Nations Environment Programme (UNEP), U.S. Treasury Department, and the World Bank. Furthermore, industry data providers such as Bloomberg Terminals and the Economist, and academic institutions like University of Oxford and Harvard University draw on this data.

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