

Media Release

Demand for fossil fuel electricity generation in India fell in 2019 and 2020

India's double leapfrog — connecting nearly all households to electricity and its renewable energy rollout — is one of the most revolutionary in scale.

New Delhi, July 14 — Demand for fossil fuel electricity generation in India reached a plateau in 2018, and fell in 2019 and 2020, according to a study published today by the Council on Energy, Environment and Water (CEEW) and UK's Carbon Tracker.

India, which accounts for 9% of emerging market electricity demand and 20% of expected demand growth, illustrates how emerging economies are about to leapfrog fossil fuels to generate all the growth in their electricity supply from renewables.

From less than 20GW of solar in 2010 it has grown to 96GW of solar, wind biomass and small hydro in May 2021. Including large hydropower, renewables now provide 142GW or 37% of the country's power capacity. While fossil fuel demand might again increase in the near-term to meet latent electricity demand, India has demonstrated how a double leapfrog — connecting nearly all households to electricity and its renewable energy rollout — can be driven with policy priorities and market design.

The study, *Reach for the Sun*, found that fossil fuel electricity generation has peaked worldwide as emerging markets seize the opportunities in low-cost renewables. Given renewables are already the cheapest source of new electricity in 90% of the world, emerging markets (non-OECD countries plus Chile, Colombia, Mexico and Costa Rica) have no need to build up huge electricity infrastructure based on fossil fuels. They are leapfrogging this stage and meeting growth in demand by deploying clean energy systems powered by wind and solar, with huge potential to boost economic development and bring electricity to millions more people.

Arunabha Ghosh, CEO of CEEW and report co-author, said: “India has undertaken arguably the fastest rate of electrification the world has witnessed so far and has demonstrated that it is possible to do the double leapfrog from traditional biomass-based energy to clean electricity access — within a short period and at scale. Globally, around 770 million people still lack access to electricity. They are a small share of forecast growth in electricity demand but the international community has a moral obligation to support universal electricity access as the basis for achieving many other sustainable development goals, in emerging markets and globally.”

Kingsmill Bond, Carbon Tracker energy strategist and report co-author, said: “Emerging markets are about to generate all the growth in their electricity supply from renewables. The move will cut the costs of their fossil fuel imports, create jobs in domestic clean power industries, and save millions of lives lost to fossil fuel pollutants.”

In developed markets demand for fossil fuels for electricity generation has fallen by 20% since it peaked in 2007, and every country except two have reached peak fossil fuel demand for electricity.

The transition is different in emerging markets because they have electricity demand growth from a lower base as well as the need to provide access to hundreds of millions of people. Nevertheless, fossil fuel demand for electricity has already peaked or plateaued in 63% of emerging markets ex-China, from Chile to Nicaragua, from Kenya to Thailand.

China, which accounts for nearly half of emerging markets electricity demand and 39% of expected demand growth, is on the cusp of change, with solar and wind capacity growing at over 20% each year. Assuming electricity demand growth of 4-5% and solar and wind supply growth of 20-25%, fossil fuel demand for electricity in China will peak before 2025.

Vested interests are the key impediment to change. The report looked at the drivers of change and the barriers to change in the emerging markets and concluded that in most locations, the barriers to change were soluble. It is vested interests in certain exporters and fragile states that are able to hold back change. But these will simply be the laggards of the energy transition.

Overall, 82% of current emerging market electricity demand and 86% of expected demand growth comes from countries that import coal and gas, and they have powerful incentives to switch to solar and wind. With the right policies in place, technology and cost barriers to change can be crossed.

Resistance to the energy transition is likely to be more entrenched in coal and gas exporting countries, but they account for just 16% of emerging market electricity demand and 10% of expected demand growth. Some are already changing: demand for fossil fuel generation peaked in South Africa in 2007, and many Gulf nations are showing signs of embracing solar.

The report finds that a supportive policy environment is the key to driving growth in renewables. If countries liberalise markets and introduce competitive auctions, they can cut costs and attract international finance as capital markets turn their backs on fossil fuels. Auctions have helped India drive the cost of solar down to one of the world's lowest levels.

Developed countries can speed up the transition to renewables in emerging markets by providing policy support, technology expertise and by using development finance to reduce the cost of capital. The report says it is in their interests to do so, in order to support global climate targets, and for geopolitical reasons.

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About CEEW

The Council on Energy, Environment and Water ([CEEW](http://ceew.in)) is one of Asia's leading not-for-profit policy research institutions. The Council uses data, integrated analysis, and strategic outreach to explain – and change – the use, reuse, and misuse of resources. It prides itself on the independence of its high-quality research, develops partnerships with public and private institutions, and engages with the wider public. In 2021, CEEW once again featured extensively across ten categories in the *2020 Global Go To Think Tank Index Report*. The Council has also been consistently ranked among the world's top climate change think tanks. CEEW is certified as a Great Place To Work®. Follow us on Twitter [@CEEWIndia](https://twitter.com/CEEWIndia) for the latest updates.

About Carbon Tracker

The Carbon Tracker Initiative is a not-for-profit financial think tank that seeks to promote a climate-secure global energy market by aligning capital markets with climate reality. Our research to date on the *carbon bubble*, *unburnable carbon* and *stranded assets* has begun a new debate on how to align the financial system with the energy transition to a low carbon future. www.carbontracker.org