

FT Series **Climate control****Climate change****India's renewable rush puts coal on the back burner**

Investment in the fossil fuel at a standstill as focus switches to green energy



India is increasingly shifting towards green energy

Simon Mundy in Mumbai DECEMBER 31, 2018

Indian power companies spent much of the past decade rushing to build coal-fired power plants in anticipation of surging electricity demand as economic growth took off.

Now, many of those projects are mired in deep [financial distress](#) and private investment in coal power has ground to a near halt. The sector has been hit by a host of problems: many plants have struggled to secure fuel supplies, and to clinch deals to sell their power to cash-strapped state distribution companies.

But the biggest driver of long-term uncertainty for the industry is one that few anticipated 10 years ago: an explosive take-off in the renewable power sector, as India joins the global push to tackle climate change by shifting towards green energy.

Soon after taking power in 2014, Prime Minister Narendra Modi's government set a target of increasing India's renewable energy capacity by 2022 to 175 gigawatts, equivalent to 40 per cent of the country's total power capacity at the time of the announcement.

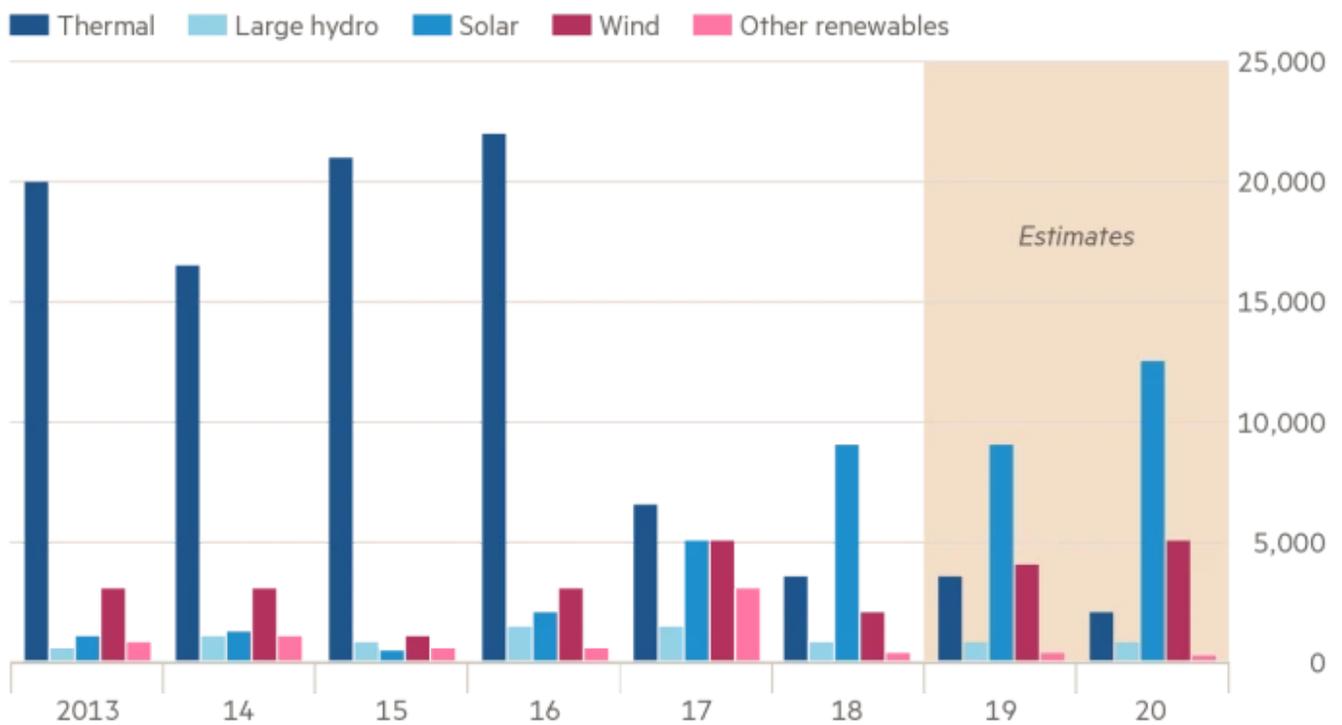
Mr Modi's ambitions were stoked by a dramatic fall in the price of solar panels after a huge expansion of production in China, which is seeking to capitalise on the international drive to cut emissions. This was steadily making the cost of electricity from solar plants — once far more

expensive than coal power — more competitive with plants running on the dirtiest fossil fuel. In the 2017 financial year, newly added renewable energy capacity overtook new coal-fired capacity for the first time.

The renewable push attracted major investors such as Japan's SoftBank, whose consortium last year sealed a deal that [stunned the industry](#). It agreed to sell power from a northern Indian solar park for Rs2.44 per unit — well below the cost of coal power, which typically costs well over Rs3.

## India's renewable energy transformation

Power capacity additions (MW)



Sources: Central Electricity Authority of India; MNRE India; IEEFA estimates

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This shift in the industry's economics means that coal power — once one of the hottest prospects for Indian industrialists — is now a space where most fear to tread.

“You'd have to be quite courageous to invest in coal at this point,” said Navroz Dubash of New Delhi's Centre for Policy Research. “The speed with which the story has reversed is quite astonishing.”

India's move away from coal power has big implications for the global climate. Per capita electricity consumption by the country's 1.3bn people is just 38 per cent of the global average, according to the New Delhi-based Energy and Resources Institute, with tens of millions of households still

lacking grid connections, and many more suffering highly inconsistent power supply. The government has made the push for reliable, universally available electricity a key policy priority.

The scale of the anticipated growth in power demand meant that coal would remain a vital part of the power mix, said Sajal Ghosh, an energy economist at Gurgaon's Management Development Institute. In contrast with its heavy reliance on imported oil and gas, India has plentiful supplies of coal in its eastern region. Until major advances are made in storage, large-scale coal power will be required to make up for the intermittent nature of renewable electricity, with solar plants shutting down at night and wind turbines falling quiet on still days.



Indian coal power producers are considering renewable projects when they build new capacity © Getty

But the sector is already moving quickly to respond to the rapid shift in the relative economics of coal and renewables. This year, state-run NTPC — by far the biggest thermal power producer in India — has cancelled several plans for large coal projects, including one for a giant 4GW plant in southern Andhra Pradesh state.

Increasingly, large private-sector coal power producers are looking at renewable projects when they build new capacity. Adani Power, for example, has invested more than \$600m in a solar plant in Tamil Nadu — a southern state with abundant sunshine.

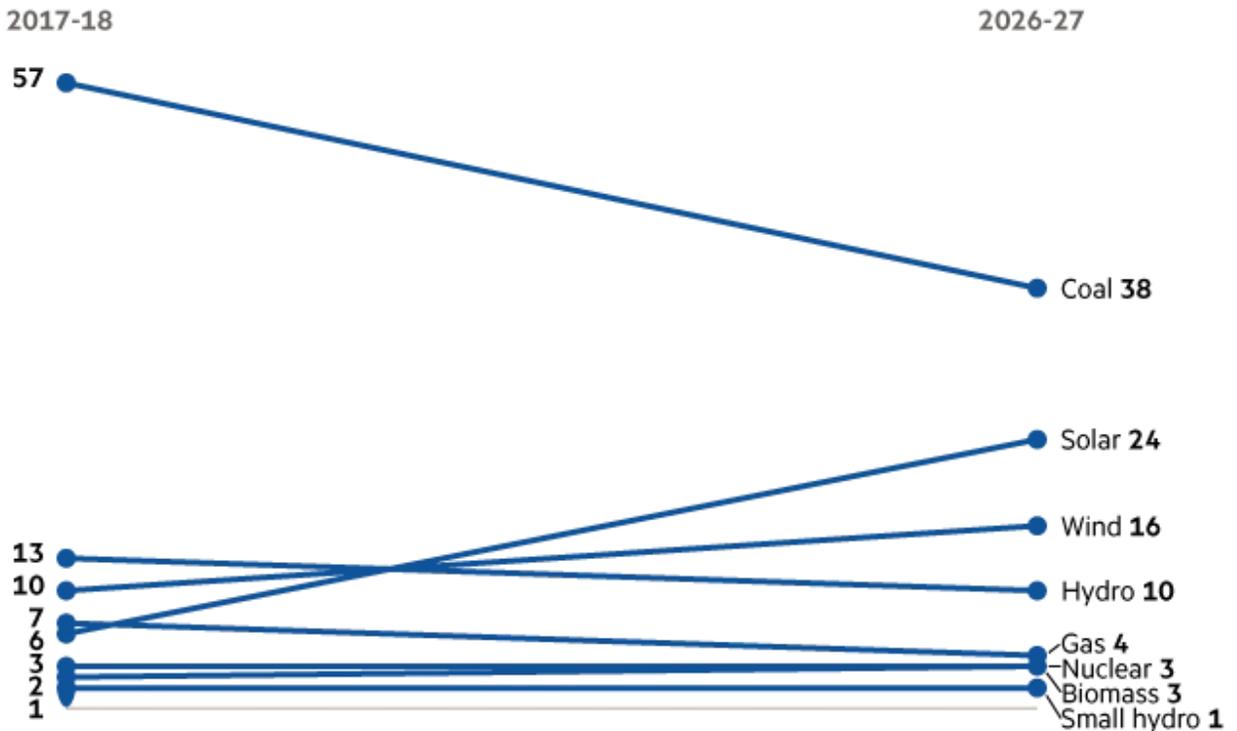
There is no longer an economic case for the highest-cost coal plants in inland areas of the country's south and west, which are forced to rely on coal expensively transported over long distances from the northeastern coalfields, said Tim Buckley at the Institute for Energy Economics and Financial Analysis.

But with a huge stock of newly built or under-construction coal plants, the companies are now forced to question which projects will remain viable in an age of increasingly plentiful renewable power, and which may need to be abandoned.

Credit Suisse estimates that more than half the debt owed by power companies is now stressed — with interest payments exceeding profits — amounting to a total of more than Rs2.5tn (\$35bn). Several coal-focused power groups are being dealt with under India's new [bankruptcy code](#), which will force them into liquidation if a swift sale is not agreed.

## India's changing energy mix

Share of total electricity capacity (%)



Source: TERI  
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Indian authorities have an incentive to minimise the distress in the coal power sector. State-controlled banks, reeling from a surge in non-performing corporate loans, are heavily exposed to this industry. A dramatic slowdown in the coal sector “would have its own implications for the banking sector in India”, warned Len George, an energy specialist at the Asian Development Bank.

Authorities’ desire to prevent large coal-fired plants from sliding into distress was reflected this month, when the Gujarat government agreed to raise the rates paid for power to two major coal plants run by Adani, Tata Power and Essar Power. The plants had fallen into heavy losses after a change in Indonesian rules increased the cost of their imported coal.

“There are a lot of things that would make the government want to prop up coal,” said Mr Dubash at New Delhi’s Centre for Policy Research. “But the prize you get if you unwind this political economy is lower cost power across the country and more competitive Indian industry.”

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