

+ Poor demand, fall in energy intensity choking coal

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If the annual addition of thermal power capacity over the last few years is any indication, coal seems to be losing its mojo.

In 2018-19, the country added only a fourth of the capacity it did in 2015-16. Capacity addition for the year fell short of the target (of 7,266 MW) by a good 20 per cent. And, by all counts, this trend is likely to continue in the near future.

The trend is hardly surprising. Given that existing coal-based power projects are running at less than 65 per cent of their capacity, there are bound to be few takers for new ones.

Slowdown hurts

There are a number of factors which seem to be working against coal.

First is the fall in demand for energy, a straight consequence of slower economic activity. Siva Subramanian, Director (Infrastructure and Project Finance), India Rat-

Addition of thermal capacity over the years

Year	Capacity added (in MW)	% change over the previous year
2018-19	5,782	-33
2017-18	8,710	-25
2016-17	11,550	-49
2016-17	22,460	8
2014-15	20,830	24
2013-14	16,767	NA

ings and Research, points out that the Central Electricity Authority has pared its demand projection for energy.

The 18th Electric Power Survey for 2021-22 put the demand at 1,905 billion units, while the 19th projected a lower figure of 1,566 billion units.

One reason for the current state of affairs is the development on the energy intensity front. Energy intensity is calculated as units of energy per units of GDP. Higher intensity indicates higher cost of conversion of energy into

GDP. Energy intensity of the GDP is falling, thanks to massive strides in energy efficiency. The GDP growth in 2017 needed 12 per cent less energy than it did in 2012, observes Divya Charen, an analyst at India Ratings.

It is pertinent to remember that bringing down energy intensity of the GDP to a third of what it was in 2005 by 2030 was one of the commitments that India made at the Paris Climate Conference of 2015.

Renewable power

Second, even as demand for energy is falling, renewable energy is increasingly taking coal's place.

In the first 11 months of 2018-19, wind and solar generated 59 billion and 35 billion units of electricity, compared with 50 billion and 22 billion units in the corresponding period of the previous year.

Consumers are gravitating towards renewable energy because the prices of wind and solar are cheaper and,

unlike coal, stable.

The CEA estimates that at 60 per cent capacity utilisation, the tariff for the new emission norms-compliant, supercritical coal-fired plant should be ₹4.39 a kWhr, far costlier than wind and solar power tariffs, which are less than ₹3.

Green, the colour of future

It is equally true that large companies prefer to go green completely. "Business is booming," says Andrew Hines, Co-Founder of the Mumbai-based CleanMax Solar, which sells solar-derived electricity directly to industrial customers.

"Solar and wind companies in India are able to lure commercial and industrial consumers under captive and third-party supply mode with a price discount when compared to utilities, which can make the latter stare at unused contracted capacity," said Siva Subramanian.

Thus, utilities are better off holding back on signing long-term power supply con-

tracts with thermal plants.

Global investor sentiment is also against coal. The Indian thermal power sector depends little on foreign funding, but when large banks and pension funds in the developed world decide to pull out of coal investments, it furrows the brow.

India has 194 GW of coal-based power capacity, 54 per cent of the total installed capacity of 356 GW.

The Global Coal Plant Tracker estimates 94 GW in the development pipeline, including 36 GW under construction. However, the Institute for Energy Economics and Financial Analysis (IEEFA), a US-based energy research and analysis body, notes that 239 GW of coal-fired plants have been cancelled in India since January 2015.

"New, non mine-mouth, and imported coal power plants are both unbankable and unviable in India," IEEFA said in a recent report titled *Tata Power: Renewables to Power Growth*.