

# POWERING THE NATION

The country's electricity generation capacity and production of main energy sources continue to post healthy growth. **By Ramesh Chakrapani**

India's installed electricity generation capacity as of March 31, 2017, totalled 3,26,833 megawatts (MW), growing 7 per cent from 3,05,162 MW as on March 31, 2016, according to the Energy Statistics 2018 report published by the Ministry of Statistics and Programme Implementation.

The installed capacity of conventional sources such as hydro and coal continued to grow, as did the capacity of other renewable sources. Coal continued to dominate the sector, accounting for nearly 59 per cent of the country's combined installed capacity. Nuclear capacity, which had stagnated at 5,780 MW in 2015 and 2016, saw a growth of 1,000 MW in 2017.

The total installed capacity has grown about 31 per cent since 2014, when it was 2,48,554 MW (as on March 31, 2014). In the production of commercial energy sources, coal posted growth from 639.23 million tonnes in 2015-16 to 662.79 million tonnes in the year under review, while lignite grew from 43.84 million tonnes to 45.23 million tonnes. Crude petroleum and natural gas both shrank from the previous year's figures.

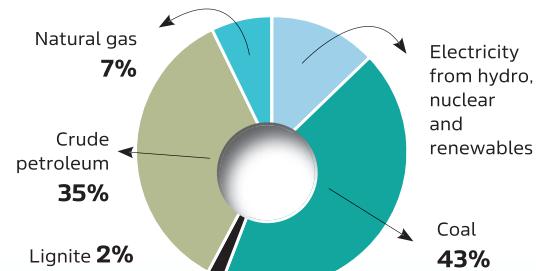
The compound annual growth rates (CAGR) in the production of coal and lignite in 2016-17 over 2007-08 are 3.79 per cent and 2.9 per cent respectively, while their consumption grew at 5.29 per cent and 2.22 per cent respectively during the same period. In the same period, generation of electricity increased by 4.05 per cent while consumption increased by 7.82 per cent. In 2016-17, industry accounted for 40 per cent of the total electricity consumption, followed by domestic consumption (24 per cent) and agriculture (18 per cent).

The per capita use of energy has significantly increased, with a CAGR of 3.54 per cent between 2011-12 and 2016-17. Coal imports steadily increased in the past 10 years, from 49.79 million tonnes in 2007-08 to 190.95 million tonnes in 2016-17, according to the report.

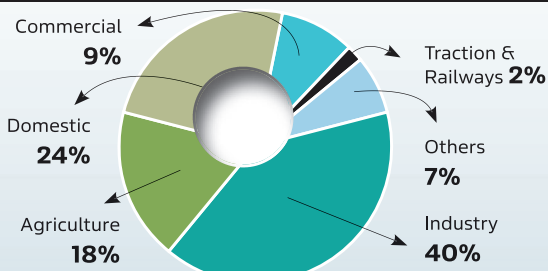
The amount of coal exported increased from 1.63 million tonnes in 2007-08 to 2.44 million tonnes in 2012-13 and then decreased to 1.77 million tonnes in 2016-17.

Net imports of crude oil increased from 121.67 million tonnes in 2007-08 to 213.93 million tonnes in 2016-17. They increased 5.46 per cent over 2015-16, when the figure was 202.85 million tonnes.

Energy supply sources 2016-17



Electricity consumption by sectors 2016-17



Production of energy sources, electricity million tonnes

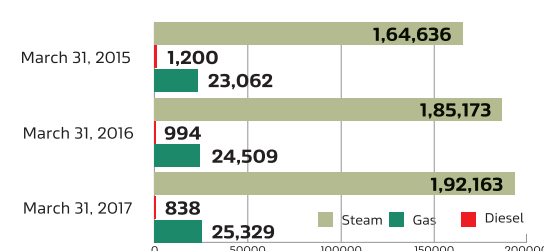
Year	Coal	Lignite	Crude petroleum	Natural gas	Electricity
2012-13	556.40	46.45	37.86	40.68	2,04,035
2013-14	565.77	44.27	37.79	35.41	2,34,595
2014-15	609.18	48.27	37.46	33.66	2,38,908
2015-16	639.23	43.84	36.94	32.25	2,24,571
2016-17*	662.79	45.23	36.01	31.90	2,41,841

\* provisional

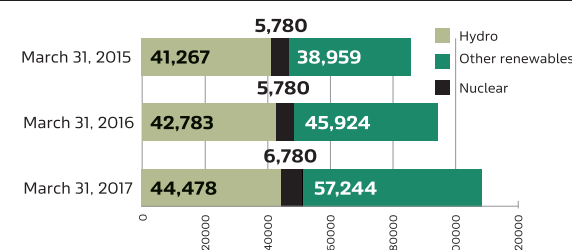
■ in billion cubic metres ■ in gigawatt-hour



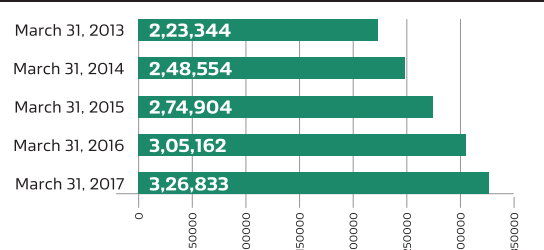
Installed capacity (thermal) in MW



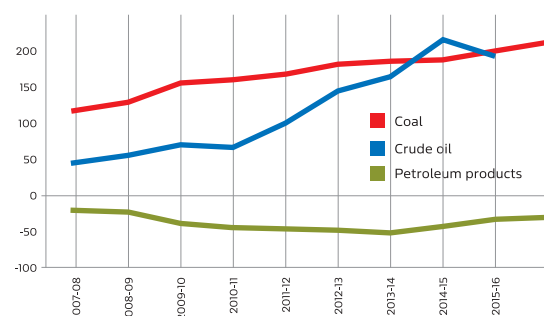
Installed capacity (others) in MW



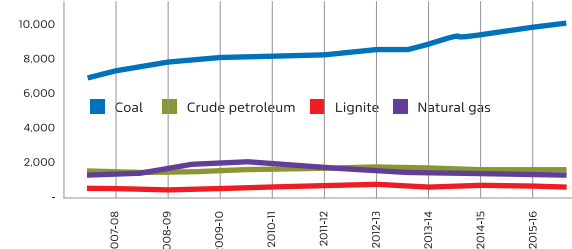
Growth in installed capacity (others) in MW



Trend in net import of coal, crude oil and petroleum products 2006-07 to 2016-17

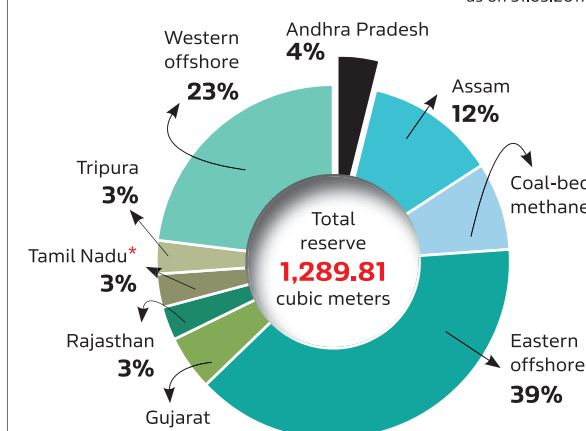


Trends in production of energy by commercial sources 2007-08 to 2016-17



Estimated natural gas reserves

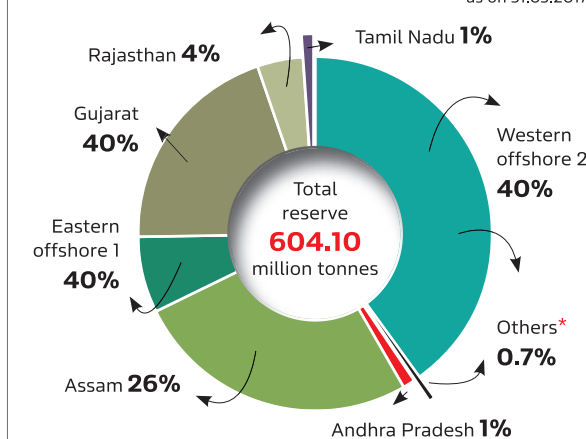
as on 31.03.2017



\* Reserve value of Tamil Nadu includes reserves of Arunachal Pradesh and Nagaland

Estimated distribution of crude oil reserves

as on 31.03.2017



\* Others include Arunachal Pradesh, Nagaland and Tripura

Distribution of petroleum products 2016-17

