

# Estimating Required Thermal Power Plant Capacity by 2030: How Much Thermal Capacity does India require to cater to its base load?

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## Abstracts

The demand for power has been showing signs of stagnation and over the past 2-3 years, many industry experts are revising the power capacity requirement projections downwards, this sighting the exhaustion seen on the power demand side. There were news that stating that India wouldn't require new power plants for next 3 years, some went to the extent stating "India to halt building new coal plants in 2022". Central Electricity Authority (CEA), made statement that "India does not need any more coal-based power units till 2027". However, all these statements need to clearly understand that thermal power plants are essential component in the overall portfolio and it caters to the base load part of the demand in the load curve. Renewable energy is slated to reach 220 GW + by 2022 and if the hypothesis is that this capacity is likely to completely replace demand for new thermal power plant, then it's an incorrect hypothesis. Renewable Energy is an intermittent source of energy and unless energy storage piece of the renewable puzzle is cracked, it's impossible to meet 100% demand for power through renewable energy. Till the time the energy storage solutions become mature, one will have to continue to depend on thermal power plants.

India is a fast growing economy and boasts of one of the fastest growing economy in the world. The economy is slated to grow in the range of 8-10% and this growth will be mirrored in the power sector in the form of demand for power. The circa 350 GW of installed power capacity is easily expected to double in next 5-7 years, this due to increase in demand for power that will be driven by hyper growth in consumerism in the country. The demand for white goods is expected to see growth that it hasn't yet seen, this on backdrop of increasing consumerism and electrified portion of population getting access to electricity. The industrial activity is expected to further fuel the demand for power, driven by several factors including urbanization and industrialization, which are

linked. India's population is moving from rural areas to urban areas in great numbers, driving up energy demand in cities. Energy-intensive industries, such as steel, cement, plastics, aluminum, and paper, play a large role in India's industrialization.

InfraInsights research report "Estimating Required Thermal Power Plant Capacity by 2030: How Much Thermal Capacity does India require to cater to its base load?" aims to answer the key question on what is the additional thermal power capacity that India will have to add over the next 5 to 10 years. The report will be outcome of intensive data modelling exercise, which will estimate the overall demand supply scenario and the required power capacity portfolio.

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