

## **Impact of COVID–19 lockdowns on Indian power sector operation**

The Indian government has authorized a cross country lockdown between March 25 and May 3 as a major aspect of its measures to contain the spread of COVID-19. During the lockdown, a few limitations have been set on the development of people and monetary exercises have stopped excepting the exercises identified with fundamental merchandise and ventures. The limitations are being loose in less influenced territories in a restricted way since April 20. we take a gander at how the lockdown has affected the Indian power sector operation and what potential repercussions its delayed impact may have on the whole power sector.

Current lockdown has conveyed another significant hit to the as of now weak sector. Indian Power sector has been permitted to work unhindered the nation over attesting its worth as a fundamental help. In any case, with Industrial and commercial businesses across the nation coming to a stop, the interest for power has decreased by 25-30% to 2009 level. This drop popular has been considerably more unmistakable in the more industrialized Western area which has seen a drop popular of as much as 40%

As power can't be put away in enormous sums, the power generation and supply for a given day are arranged dependent on the conjecture for request. The long stretches of January and February in 2020 had seen an expansion of 3% and 7% in power gracefully, separately when contrasted with 2019 (year-on-year). In examination, the power supply flexibly observed a diminishing of 3% between March 1 and March 24. During the lockdown between March 24 and April 19, the absolute total power flexibly observed a decline of about 25% (year-on-year).

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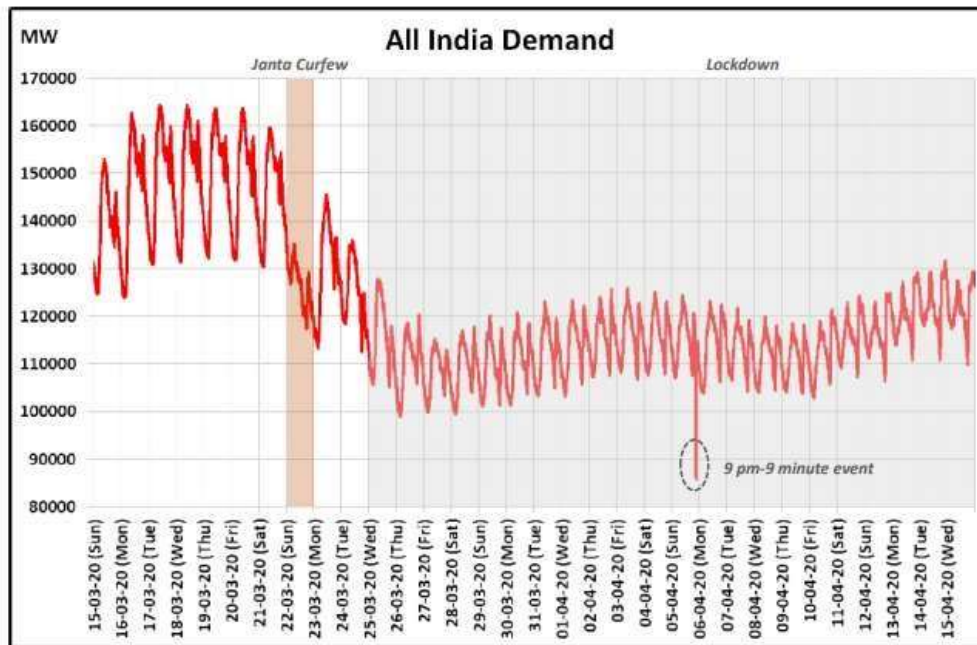


Figure 1 - All India Continuous Power Demand Pattern - 15 Mar to 15 Apr 2020

Source: POSOCO, NLDC

As power sector related activities have been delegated fundamental administrations (essential services), the plant tasks and accessibility of fuel (principally coal) have not been essentially compelled. This can be seen with the energy shortage and pinnacle deficiency levels during the lockdown time frame which has stayed at an ostensible level. Energy deficiency shows the deficit in energy flexibly against the interest during the day. The normal energy shortfall between March 25 and April 19 has been 0.42% while the relating figure was 0.33% between March 1 and March 24. Also, the normal peak deficiency between March 25 and April 19 has been 0.56% when contrasted with 0.41% between March 1 and March 24. peak deficiency demonstrates the shortage in flexibly against request during the most noteworthy utilization time frame in a day.

Coal is the primary source of power generation in the country (~71% in March 2020). During the lockdown time frame, the coal stock with coal power plants has seen an expansion. As of April 19, all out coal-stock with the force plants in the nation (in days) has ascended to 29 days when contrasted with 24 days

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on March 24. This demonstrates the flexibility of coal has not been obliged during the lockdown, in any event to the degree of meeting the prerequisites of intensity plants. During the lockdown, generation of power has been acclimated to make up for diminished utilization, the greater part of this decrease in utilization has been balanced by diminished coal power generation. Coal power generation decreased from a normal of 2,511 MU between March 1 and March 24 to 1,873 MU between March 25 and April 19 (about 25%). Accordingly, the commitment of coal in total power generation decreased from a normal of 72.5% to 65.6% between these two periods. This move might be occurring because of different reasons including: (i) renewable energy sources (solar, wind, and small hydro) have [MUST RUN status](#), i.e., the power generated by them has to be given the highest priority by distribution companies, and (ii) running cost of renewable power plants is much less as compared to thermal power plants.

This recommends if development in power request were to stay feeble, the unfriendly effect on the coal power plants could be more when contrasted with other force age sources. This will likewise convert into frail interest for coal in the nation as nearly [87% of the domestic coal production is used by the power sector](#). Note that the plant load factor (PLF) of the thermal power plants has seen a considerable decline over the years, decreasing [from 77.5% in 2009-10 to 56.4% in 2019-20](#). Low PLF infers that coal plants have been lying inert. Coal power plants require huge fixed expenses, and they cause such expenses in any event, when the plant is lying inactive. The declining limit usage expanded by a more vulnerable interest will subvert the monetary suitability of these plants further.

The complete yearly CO<sub>2</sub> emissions for India for the year 2019 were about 2.2 GtCO<sub>2</sub> in 2017, of which around 69.4% are from the power sector. India's absolute emanations establish about 6% of the all-out worldwide discharges in 2017. The complete decrease of CO<sub>2</sub> outflows just from the power sector

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because of the COVID-19 lock-down, is around 1-4% of the all-out discharges. Since modern and business action close by transport has additionally been influenced, there is probably going to be a decrease in CO<sub>2</sub> outflows even from these parts. In any case, here we restrict ourselves to gauges for the power sector. The general effect of diminished monetary movement is probably going to result in more slow development of discharges from the division than had before been foreseen going past the time of the lock-down. This more drawn out term sway has not been assessed here.

It must be underscored that not at all like proactive advances taken to decrease discharges, for example, productivity upgrades or sending sustainable power sources, this specific decrease in CO<sub>2</sub> emanations comes because of a close complete stop in monetary action for a specific period because of an outside stun.

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## REFERENCES.

- [1] <https://praj.net/wp-content/uploads/2020/05/covid-19-impact-and-recovery-power-sector.pdf>
- [2] <https://www.prsindia.org/theprsblog/impact-covid-19-power-sector>
- [3] The COVID-19 lockdown in India: Impacts on the economy and the power sector:  
<https://reader.elsevier.com/reader/sd/pii/S2589791820300153?token=77202B945A942E16C64860322FF6E80549208DB9595D2DB10978FAE26FE485D45CD751EF7A835E812E03394EDEBBFBED>
- [4] C.P. Chandrasekhar, Non-performing power sector assets: signalling a largercrisis, Econ. Polit. Wkly. 53 (37) (2018) 2018.
- [6] Economic Research and Regional Cooperation Department ERCD, AsianDevelopment Bank, 2020: <https://data.adb.org/dataset/india-input-output-economic-indicators>
- [7] J. Gütschow, L. Jeffery, R. Gieseke, A. Günther, The PRIMAP-Hist NationalHistorical Emissions Time Series (1850-2017). v2.1. GFZ Data Services, 2019,: <https://doi.org/10.5880/pik.2019.018>.