

Centre to review Electricity Plan as climate change skews demand forecast

CONSUMPTION SURGE. Peak power demand has increased sharply in several States in the last two years

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The Power Ministry will review the peak power demand and supply projections in the National Electricity Plan (NEP) as changing climatic patterns, leading to growing instances of heat waves and humidity levels in the last few years, have led to a significant uptick in India's electricity consumption.

Speaking at a CII event on Tuesday, Power Secretary Pankaj Agarwal pointed out that peak power demand has witnessed a "sharp" increase in several States in the last two years.

"Already, we have been receiving feedback that our estimate of 384 GW may be an underestimate. That might be easily crossed. What we will need is 900 GW of total installed capacity by 2031-32," he added. Agarwal projected that peak demand could surpass 400 GW by 2032.

Later, speaking to report-



HIGH DEMAND. The year 2024 has been an exceptional year in terms of weather-related energy consumption ISTOCKPHOTO

ers on the sidelines, Agarwal said, "We projected our FY32 peak demand as 384 GW. In the last few years, we have witnessed a sharp increase. This year, in terms of megawatt, it is already up over 9 per cent and in terms of million units it is already up about 11 per cent, if we compare Q1 FY25 with Q1 FY24. We are now working on projections. Some States have already updated (their projections) and very shortly we will be updating our

NEPs," he added. In May 2023, the Central Electricity Authority notified the NEP (Vol-I Generation) for 2022-32.

CLIMATE CHANGE

The year 2024 has been an exceptional year in terms of weather-related energy consumption. April-June was marked by sweltering temperatures coupled with intense heat waves across North India leading to a higher requirement for

pushing up electricity demand. During April 2024, power consumption rose 11 per cent year on year, while the growth in May was steeper at 15 per cent. In June, the usage rose roughly 9 per cent.

EXPERT VIEWS

Sector experts and analysts have welcomed the move. Disha Agarwal, Lead, Council on Energy, Environment and Water Senior Programme, told *businessline*, "As a country, we need to understand our demand well. We don't have as such a strong understanding on how our demand is evolving and what sectors are likely to contribute significantly and by how much, particularly in terms of medium and long term projections."

Citing examples, she said that the farm sector is experiencing changes in consumption patterns because the country is trying to meet agriculture demand during the day, which means that demand will shift from night to

day. Accordingly, the government and planning entities will have to examine the resultant implications of these shifts that are happening on the supply side.

Arindam Ghosh, Partner - Power Advisory at Nangia & Co, said, "I agree that assessing the overall capacity requirement is essential, but it's equally vital to analyse the mix of power plants — both scheduled and intermittent. This analysis should address varying levels of demand on monthly, weekly, daily and hourly bases, including seasonal variations. Such granularity is crucial for ensuring grid stability and reliable power supply."

In a recent policy brief, the Coalition for Disaster Resilient Infrastructure said that over 75 per cent of India's coastline is susceptible to extreme weather events like cyclones and tsunamis, the most vulnerable being the eastern coastal States of Tamil Nadu, Andhra Pradesh, Odisha and West Bengal.