

+ India's data centre boom raises 'power' concerns

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With policy tailwinds and mega investments from hyperscalers signalling a rapid expansion of India's data centre capacity, the question of power requirements for the energy-hungry industry has come to the fore. Per industry estimates, power for about 30-35 per cent of the current data centre capacity comes from renewable sources, predominantly through power purchase agreements (PPAs).

For instance, Sify Infinit Spaces sources 38 per cent of its total portfolio through renewable PPAs, while TechnoDigital, the data centre arm of TechnoElectric, has about 85 per cent of its current capacity sourced through renewable PPAs.

SUPPLY COMFORT

Abhishek Lahoti, Assistant Vice-President and Sector Head, ICRA, said that at the current rate of annual capacity addition, energy requirements can be met organically through a combination of green and grid power. "Data

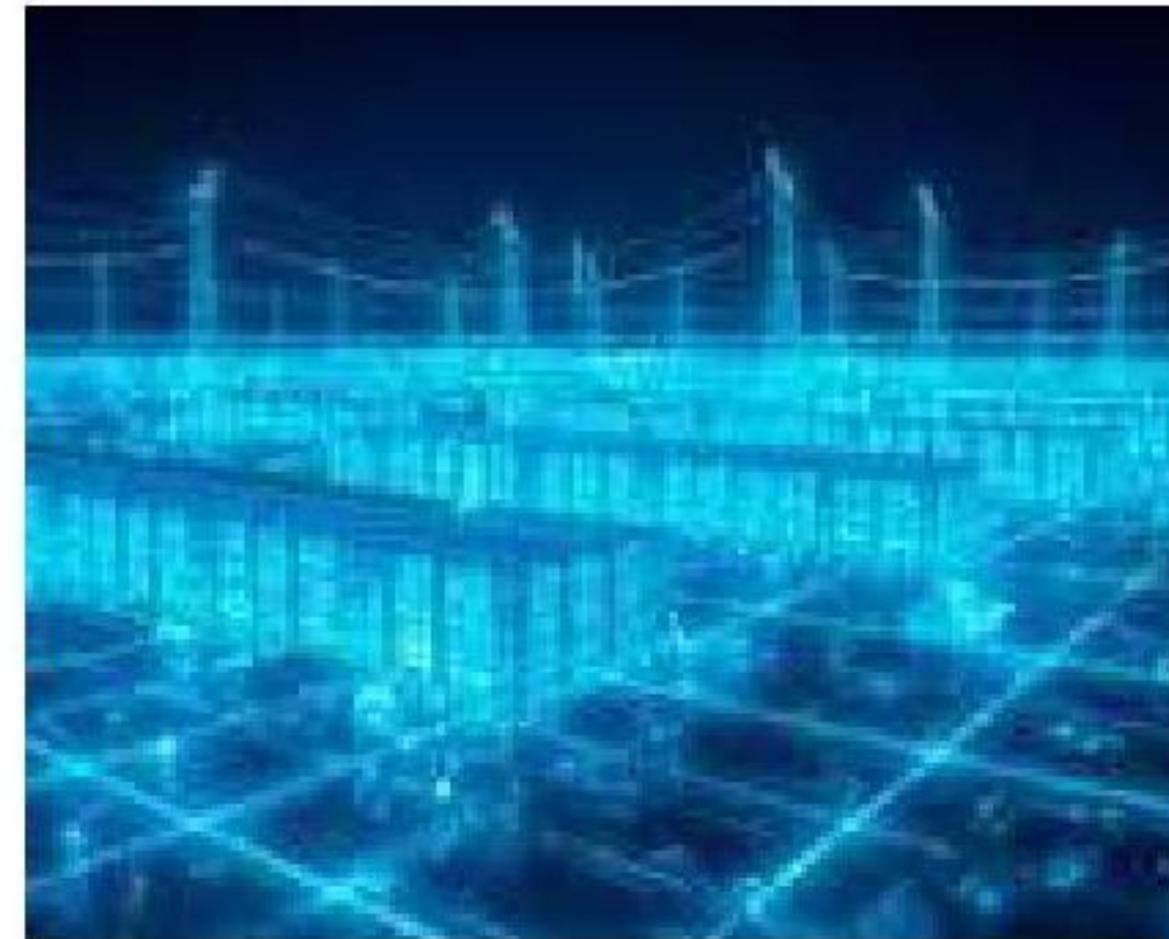
centre capacity addition is expected to be about 0.5 GW each year, and investments are going into both grid and green power with grid power addition alone around 5-6 GW per year. So, there should be enough power in the short term."

He added that while tax provisions and other headwinds might spur an uptick in data centre capacity addition, it might not be enough to create a power deficit. However, he noted that over the longer term, power could be a bottleneck, especially if capacity rises exponentially beyond previous estimates.

CAPTIVE ROUTE

Roopesh Kumar, Head-Data Centre Projects, Sify Technologies, said that the company plans to source incremental power through a combination of renewable PPAs and group captive arrangements.

The issue, however, is not restricted to capacity alone, but also to the grid strength needed to deliver power to the centres. According to data from real estate services firm CBRE, over 90 per cent of data centres are concen-



trated in a few key metros. This means that data centres are often competing for power with cities that have large populations and high local demand.

Ankit Saraiya, CEO, TechnoDigital, said that there are locations in India where data centres already consume 15 per cent of total grid capacity, which is bound to reach

30-35 per cent by 2030. "The challenge is not in sourcing renewable or thermal power, but in getting the capacity delivered to your site. Power ultimately flows through the same grid, and the question is whether the network has the transmission and distribution strength to serve additional demand," he said.

He added that moving the data centres to tier-1 and -2 cities that are closer to the generating station and have much lower grid load could be a solution. The challenge in moving these centres, Lahoti said, would be the availability of fibre connectivity and the talent in these locations.