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# POWER TRANSMISSION IN INDIA 2020

Sector Analysis, Recent Developments, Project Pipeline and Outlook

- ❖ Report (PDF)
- ❖ Data-set (Excel)

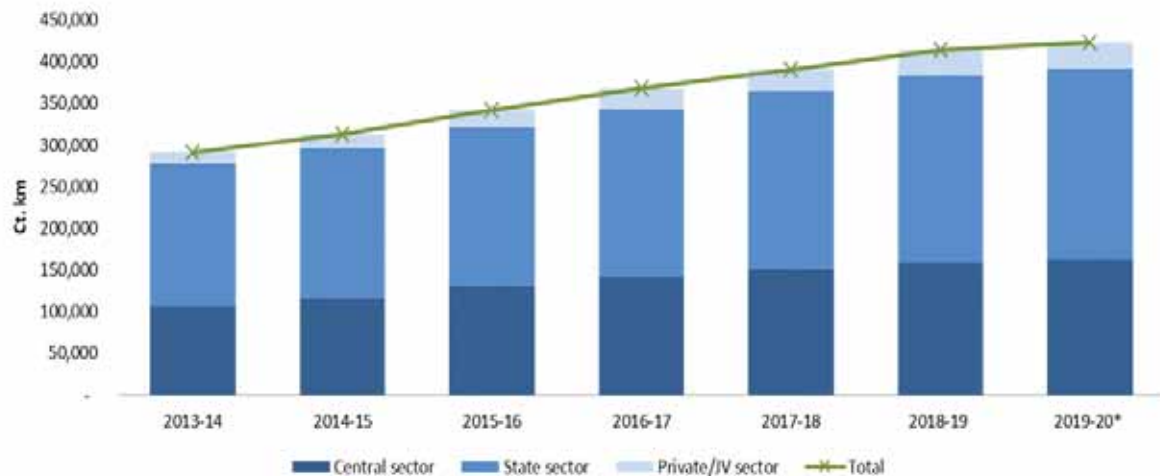
## The report covers:

- ❖ Assessment of transmission sector size, growth trends and recent developments
- ❖ Comparison of state transmission utilities on parameters like line length, substation capacity, and operational and financial performance up to 2018-19
- ❖ Detailed analysis of private sector participation in transmission
- ❖ Pipeline of under-construction/upcoming transmission line and substation projects till 2024-25
- ❖ Outlook for network growth, equipment demand and future opportunities
- ❖ Profiles of central, state and private transmission companies covering network infrastructure growth, operational and financial performance, capacity addition plans, and proposed investments

### Report Summary and Key Insights

The transmission sector in India has seen considerable growth in the past few years owing to increasing power demand as well as generation capacity addition.

Year-wise Growth in Transmission Line Length



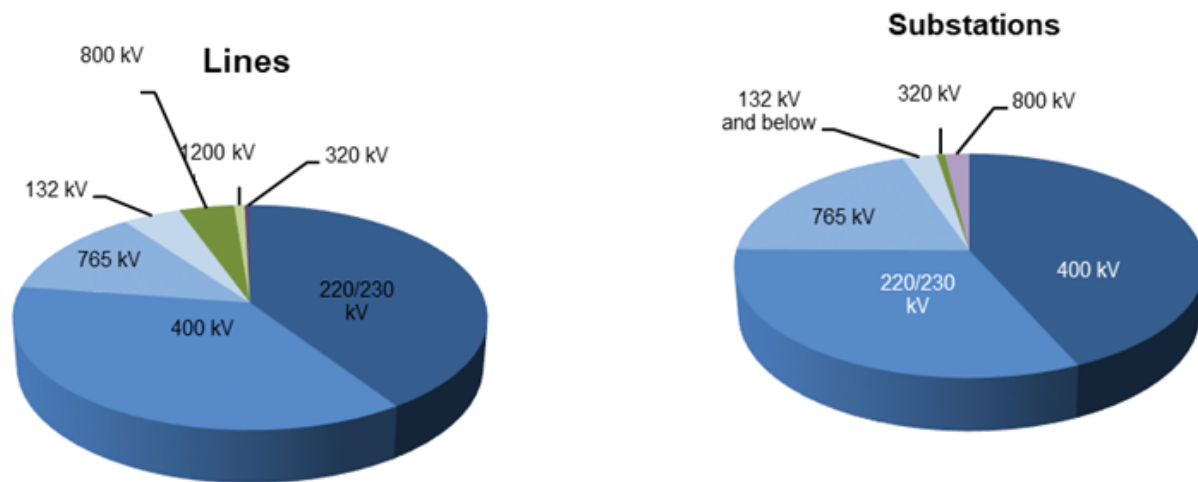
In the coming years, the growth of the transmission sector will be mainly driven by the need to evacuate large-scale renewable energy. With a target to set up 175 GW of renewables by 2022 and 450 GW by 2030, the transmission system will require significant expansion and strengthening. This, in turn, will offer significant investment opportunities to both public and private players.

As renewable energy assumes a bigger role in the country's generation mix, maintaining grid resilience and security will be paramount, and utilities will be required to adopt solutions for better forecasting and grid balancing. Transmission utilities across the central, state and private sectors are, therefore, expected to invest in new technologies to make the grid more reliable, resilient, secure and smart. Currently, centrally owned Power Grid Corporation of India Limited spearheads investment in the transmission sector, but private participation has been increasing steadily. Private players have secured the majority of interstate transmission system projects awarded through tariff-based competitive bidding (TBCB). Now, states are also coming forward to award intra-state projects through TBCB. Some examples are Maharashtra, Uttar Pradesh, and Madhya Pradesh. Several state transmission utilities (STUs) have planned a significant capex to strengthen their transmission networks in the coming years.

In addition, the focus is on the creation of a regional power grid to utilise resources in the South Asian region in an optimal manner. To realise the vision of a regional grid, there is a need to build new transmission networks and strengthen existing ones. New cross-border transmission networks are being implemented/planned with Nepal, Bhutan, Bangladesh and Sri Lanka. Further, Indian Railways' electrification plans are likely to provide more business opportunities to transmission equipment providers. Besides, smart cities, digitalisation, energy storage, charging infrastructure and telecom are emerging as growth areas for players in the sector.

Overall, the transmission sector has a robust project pipeline that will translate into healthy capacity additions and strong equipment demand going forward.

## Voltage-wise Break-up of Under-development Transmission Lines and Substations



This report provides a comprehensive view of the power transmission sector in India with an emphasis on transmission infrastructure growth, project pipeline, future projections (network and equipment till 2024-25), STU performance, regional expansion, and renewable energy integration. It presents a detailed update of recent developments, emerging trends, policy and regulatory initiatives, private sector experience, and grid modernisation technologies. The report also contains profiles of three central sector utilities, 24 STUs and over eight private transmission developers, as well as a dataset comprising over 1,000 under-development/upcoming transmission line and substation projects.

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India Infrastructure Research is a division of India Infrastructure Publishing, a company dedicated to providing information on the infrastructure sectors through magazines, conferences, newsletters and research reports. We have 22 years of experience in tracking and analysing infrastructure sectors and publishing about 35 plus multi-client reports in the areas of power, renewable energy, oil & gas, ports & shipping, roads & bridges, urban infrastructure, telecommunications, aviation, railways, water, health, housing, banking and infrastructure finance. We also publish six magazines - Power Line, Indian Infrastructure, Renewable Watch, tele.net, Gujarat infrastructure and Smart Utilities and have two online databases - [www.indiainframonitor.com](http://www.indiainframonitor.com) (covering all infrastructure projects with investments of over Rs 1 billion) and [www.indiapowerregulation.com](http://www.indiapowerregulation.com), which provides information on the regulatory developments in the Indian electricity sector. India Infrastructure offers custom research services as well, drawing on our staff of almost four dozen infrastructure research analysts.

## Executive Summary

## SECTION I: MARKET TRENDS AND DEVELOPMENTS

1. **Sector Size and Growth**
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  - ❖ Trends in Substation Additions
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  - ❖ L&T Infrastructure Development Projects Limited
  - ❖ Essar Power Transmission Company Limited
  - ❖ Others

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