

Brief on 19th Electric Power Survey Report

1. Introduction

The 19th Electric Power Survey (EPS) Report, covering electricity demand projection of Distribution Companies, States/UT's, Regions and the all-India Electricity demand projection has been brought out by Central Electricity Authority (CEA). The Report covers year-wise electricity demand projection for the years 2016-17 to 2026-27 for Discoms, States/UT's, Regions and for the country. The report also covers perspective electricity demand projection for States/UT's, Regions and for the country for the years 2031-32 and 2036-37.

The electricity demand projection exercise has been carried out in association with Distribution Companies (Discoms)/State Electricity Departments/Transmission Companies (Transcos) of States/UT's.

2. Methodology of Electricity demand projection

Partial End Use Methodology, which is a combination of time series analysis and end use method has been adopted to forecast electricity demand for 19th EPS as well. Partial End Use Method is a "bottom-up" approach focusing on end-uses or final energy needs of different categories of consumers like domestic, commercial, irrigation, industries, railway traction etc. Various initiatives of Government of India/State Governments like Power for All (PFA), Demand Side Management (DSM), energy conservation and efficiency improvement measures, Make in India, penetration of roof-top solar, electric vehicles etc. have been broadly factored in the electricity demand projection.

The Electric Power Survey Report covers electricity demand projection only for the utility system. The projections do not include the portion of electricity demand of Industries and other consumers that would be met from captive power plants.

3. Overview of Electricity demand projection

- **Electricity demand projections from 2016-17 to 2026-27 on all-India basis**

The electricity consumption on all-India basis during the year 2016-17, 2021-22 and 2026-27 has been assessed as 921 BU, 1300 BU and 1743 BU respectively. The electrical energy requirement on all-India basis during the year 2016-17, 2021-22 and 2026-27 has been assessed as 1160 BU, 1566 BU and 2047 BU respectively. The peak electricity demand has been estimated as 162 GW during the year 2016-17; 226 GW during 2021-22 and 299 GW during the year 2026-27.

- **Electricity demand projections for the years 2031-32 and 2036-37 on all-India basis**

The electricity consumption on all-India basis during the year 2031-32 and 2036-37 has been assessed as 2192 BU and 2672 BU respectively. The electrical energy requirement on all-India basis during the year 2031-32 and 2036-37 has been assessed as 2531 BU and 3049 BU respectively. The peak electricity demand has been estimated as 370 GW during the year 2031-32 and 448 GW during the year 2036-37.

4. Review of electricity demand projection

The electricity demand projection would be reviewed after every two years.

The 19th Electric Power Survey (EPS) Report contains seven Chapters as below:

Chapter 1 covers the constitution of 19th Electric Power Survey Committee, consumption categories considered for the forecast, methodology adopted for electricity demand forecast, policy initiatives of Government affecting electricity demand etc.

Chapter 2 covers the all-India, State/UT/Distribution Company- wise electricity demand projection for the years 2016-17 to 2026-27.

Chapter 3 covers the review of 18th EPS projections vis-à-vis the actual electrical energy requirement and peak electricity demand. It also covers the comparison between 19th EPS projections and 18th EPS projections.

Chapter 4 covers the category wise (domestic, commercial, public lighting etc.) projection of electrical energy requirement and peak electricity demand for the years 2016-17 to 2026-27 on all-India and Regional basis.

Chapter 5 covers the category wise projection of electrical energy requirement and peak electricity demand for Distribution Companies, States and UTs for the years 2016-17 to 2026-27.

Chapter 6 covers the perspective electricity demand projection for the States/UT's/Regions and for the country for the years 2031-32 and 2036-37.

Chapter 7 covers the electrical energy generated by Captive Power Plants in the past, projections of electrical energy generation in future and a scenario analysis considering the additional electrical energy requirement from utility grid if the industries transfer part of their electricity demand from captive power plants to the utility grid.