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ENERGY MARKETS INDIA

POWER SECTOR

NEWSLETTER | Week 31 | Aug 2023

Power Purchase

» CEA Issues Guidelines to Evaluate Energy Demand Forecast in the Country

- Central Electricity Authority (CEA) has released guidelines for state utilities to create medium and longterm projections to evaluate the country's electricity demand.
- The objective of the power demand forecast is to encompass electricity demand projections for the utility system, including demand from distributed power sources like captive power projects and rooftop solar installations, to create a comprehensive picture of the power sector.
- Forecasts should cover both medium-term (spanning one to five years) and long-term (at least ten years) periods, conducted every five years with yearly reviews for accuracy at the DISCOM level.
- The forecasting process should include at least three scenarios: optimistic, business-as-usual, and pessimistic, while considering specific government policies, developmental plans, and emerging factors' potential impact on electricity consumption. Consumption categories should align with the current tariff structure in each DISCOM.

Power Purchase

- The recommended statistical methods to analyze the annual growth rate of energy consumption categories in the past are the Least Square Method and the Weighted Average Method. Advanced statistical tools may also be used for analysis.
- Past growth trends for Transmission and Distribution (T&D) losses should be separately examined, considering the three components of T&D losses: distribution losses, intrastate transmission losses, and interstate transmission losses.
- While anticipating significant reductions in T&D losses due to planned measures, the impact on unmetered load shifting to metered load under different consumer categories must be considered for a comprehensive evaluation.
- If energy efficiency is projected to follow similar patterns as observed in the past, its impact should not be separately considered. However, significant changes in energy efficiency due to technological breakthroughs or government policies should be factored in the forecasting process as additional elements.
- The energy requirement of a DISCOM should include T&D losses, and the peak demand forecast should be derived from the energy requirement figure using an appropriate load factor.

RENEWABLES

» MoP issues New Bidding Guidelines for Wind Power Projects

- The Ministry of Power has introduced new guidelines for the tariff-based competitive bidding process for procurement of power from grid-connected wind power projects to boost renewable capacity and meet the distribution licensee's Renewable Purchase Obligation (RPO).

- The guidelines will apply to projects with a bid capacity of 10 MW and above connected to the intra-state transmission system and projects with 50 MW and above bid capacity connected to the inter-state transmission system.

- The wind power generator must comply with specific conditions, including adherence to bid guidelines, seeking government approval for deviations, meeting additional milestones, and obtaining all necessary clearances, permits, licenses, land, and grid connectivity before the scheduled date of power supply commencement.

- The wind power procurement bidding structure involves inviting bids based on power capacity (MW) terms, with a minimum and maximum bid capacity. Bids are allocated based on bucket filling, starting with the lowest tariff bidder (L1) and subsequent bidders (L2, L3, etc.) within a predefined range from the L1 tariff. The procurer may choose an e-reverse auction for final selection and disclose incentives available to wind power generators, with a maximum allocation of 50% of the total capacity to a single bidder.

- The power procurement process involves issuing the RfS along with draft Power Purchase Agreement (PPA) and Power Sale Agreement (PSA). The PPA period is generally 20 years from the SCOD or rescheduled supply commencement date, but it can be set for 25 years as well.

RENEWABLES

- Bids are based on the tariff quoted in ₹/kWh for the PPA period, and capacity is allocated to bidders within a predefined "L1+x%" range from the L1 bidder. An e-reverse auction may be used for final selection, and incentives for wind power generators are disclosed.

- The bidding documents specify a range for the Capacity Utilization Factor (CUF), and penalties are imposed on successful bidders, if the energy supply falls below the contracted CUF level. However, they have the right to sell excess energy to other entities, with procurers having the first right of refusal.

- The procurer must conduct the wind power project bidding process through e-bidding using a reliable eprocurement platform. Technical bids will be opened first, and only qualified bidders will have their financial bids opened.

- The option of e-reverse auction for final selection must be specified in the bid documents. Developers with existing or untied capacity can participate, and all bidding documents, including RfS, draft PPA, and draft PSA, must be prepared according to guidelines and standard documents.

- The RfS notice should be published in two national newspapers and the procurer's website, and any revisions or amendments to bidding documents must be provided at least seven days before bid submission.

- The bidding process timetable allows a minimum of 22 days between issuing the RfS documents and the bid submission deadline.

- The RfS document will include the following standard provisions:
  - Bid Responsiveness
  - Qualification Requirement
  - Earnest Money Deposit
  - Compliance with FDI Laws

Policy And Regulatory

» MoP introduces measures for Subsidy Accounting and Billing for Discoms

- Ministry of Power has amended Electricity Rules 2005 to improve financial stability of state distribution companies (DISCOMs) and establish sustainable power sector framework.
- The New rules streamline accounting, reporting, billing, and subsidy payment by states to DISCOMs to address improper practices and financial distress.
- DISCOMs are required to submit quarterly reports within 30 days, including details on subsidy demands and payments based on energy consumed by subsidized categories.
- State Commissions to review reports and issue findings within 30 days, with provisions to ensure compliance and take action against non-compliance.
- Specific targets are to be set for reducing Aggregate Technical and Commercial (AT&C) losses, approved by State Commissions during tariff determination.

- Prudent costs of power procurement and distribution system asset creation accounted for in tariff approval.
- Gains or losses from AT&C loss reduction deviations to be quantified based on Average Power Purchase Cost (APPC) and shared between DISCOMs and consumers.
- State Commissions to align Return on Equity (RoE) with Central Electricity Regulatory Commission's specifications, subject to modifications based on distribution business risks.