

1. INTRODUCTION

1.1 Preamble

1.1.1 T.P. No. 1 of 2020 filed by SLDC before this Hon'ble Commission on 18.12.2020 and the same has been admitted on 29.12.2020. However, this Additional Affidavit is filed in T.P. No. 1 of 2020 due to the changes in Capital Expenditure & Capitalisation approved by this Hon'ble Commission for the FY 2019-20 to FY 2021-22 in M.P. No. 17 of 2019 and the preliminary balance sheet for the year 2020-21. Hence, this Additional Affidavit may be considered (instead of original petition) for True Up For the FY 2017-18 to FY 2019-20 and Provisional True-up for the FY 2020-21 and Annual Performance Review of ARR for the FY 2021-22 & Aggregate Revenue Requirement for the period from FY 2022-23 to FY 2026-27 and Determination of SLDC Charges for the period from FY 2022-23 to FY 2026-27.

1.2 Background

1.2.1 Tamil Nadu Electricity Board (TNEB) came into existence on 1st July 1957 under the repealed Act of Electricity (Supply) Act 1948 and has been in the business of generation, transmission and distribution of electricity in the State of Tamil Nadu.

1.2.2 In Tamil Nadu, the Grid operation was started during November 1964. The first Load Despatch Centre of Tamil Nadu State was started at Erode on 06.11.1964 with a load of 110 MW. Subsequently, the Main Load Despatch Centre of Tamil Nadu State was started at Chennai on 1st June 1986 with the load of 3000MW. Sub Load Despatch Centre at Madurai was started on 15th September, 1986. Based on the Generation and Demand Growth of Tamil Nadu, Sub-Load Despatch Centre (Sub LDC) was started at Chennai on 1st December, 1996 with the load of 5000 MW. Presently, the State Load Despatch Centre (SLDC) is functioning at Chennai with three Sub Load Despatch Centres at Chennai, Erode and Madurai.

1.2.3 Sections 131 to 134 of EA, 2003, mandates reorganization of the State Electricity Boards into functional entities and corporatization of the same. Regardless of the design of the electricity sector reforms, the ultimate goal of reforms is to make the sector more efficient. Therefore, in order to meet the requirements under the Act and to become more efficient and competitive, the Government of Tamil Nadu (GoTN) and the Tamil Nadu Electricity Board (TNEB) proposed to restructure the State power sector.

1.2.4 In accordance with the above mandate, the GoTN had given in-principle approval for the re-organization of TNEB by establishing a holding company, named TNEB Ltd and

two subsidiary companies, namely Tamil Nadu Transmission Corporation Limited (TANTRANSCO) and Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) vide G.O.Ms.No.114 Energy (B2) Department dated 08.10.2008 with the stipulation that the above companies shall be fully owned by the State Government.

1.2.5 Subsequently, the audited Balance Sheet as on 31st October 2010 was ready and as a result final transfer scheme was notified by the Government of Tamil Nadu vide G.O.Ms No.49, Energy (B1) department, dated 13th August 2015, which is the final amendment to the earlier transfer scheme (G.O. (Ms).No.100 Energy (B2) Department dated 19th October 2010 and G.O. (Ms.) No.2, Energy (B2) department, dated 2nd January 2012) which gave effect to the transfer of assets and liabilities to the successor entities of erstwhile TNEB as on 1st November 2010.

1.2.6 Post restructuring, as per the notification, TANTRANSCO was provided with the function of transmission of electricity in the state of Tamil Nadu. The State Transmission Utility (STU) TANTRANSCO has been vested with the State Load Despatch functions till further orders of the State Government from the date of transfer.

1.2.7 As per Section 31(1) of Electricity Act,2003, the State Government shall establish a State Load Despatch Centre (SLDC). Section 31(2) of Electricity Act 2003 also provides that the said SLDC shall be operated by a Government company / authority / corporation constituted by or under any State Act and that until such company / authority / corporation is notified by the State Government, the State Transmission Utility (STU) shall operate the SLDC.

1.2.8 The Load Dispatch Centre of Tamil Nadu is divided into three control areas, viz., Chennai, Madurai and Erode and the area Load Despatch Centres in each area takes care of the operation of the respective area.

1.2.9 The State Load Despatch Centre is functioning at Chennai and three Sub-Load Despatch Centres at Chennai, Erode and Madurai carrying out the grid management and taking care of the overall reliability, security, economy and efficiency of the power system function for smooth evacuation of power from generating stations to the consumers.

1.3 Vision & Mission of SLDC

1.3.1 Ensuring security, economy and efficiency of the power system in the State and adopt Best Practices in the grid operation in maintaining the grid discipline.

1.4 Functions of SLDC

1.4.1 In accordance with section 32 of Electricity Act, 2003, functions of SLDCs are as under:

- Shall be the apex body to ensure integrated operation of the power system in a State;
- Be responsible for optimum scheduling and despatch of electricity within a State in accordance with the contracts entered into with the licensees or the generating Companies operating in that State;
- Monitor grid operation;
- Keep accounts of the quantity of electricity transmitted through State grid;
- Exercise supervision and control over the intra -State transmission system;
- Be responsible for carrying out real time operation for grid control and despatch of electricity within the State through secure and economic operation of the State Grid in accordance with the Indian Electricity Grid Code (IEGC) and Tamil Nadu Electricity Grid Code (TNEGC).
- Levy and collect such fee and charges from the generating companies and licensees engaged in intra-State transmission of electricity as may be specified by the State Commission.

1.5 Open Access

1.5.1 Under Open Access, SLDC is taking care of the following activities.

- Permitting Inter-State Open access to the HT consumers for purchase of power from outside Tamil Nadu through traders under Bilateral transaction.
- Permitting Inter-State Open access to the HT consumers for purchase of power through Power Exchanges under collective transaction.
- Permitting Inter-State Open access to the Intra-State private generators for selling of power outside Tamil Nadu under bilateral transaction.
- Permitting Inter-State Open access to the Intra-State private generators for selling of power through Power Exchanges under collective transaction.
- Permitting Intra-State Open access to the HT consumers for purchase of power from the generators within Tamil Nadu (third party category).
- Permitting Intra-State Open access to the Intrastate Private Generators for wheeling power to their Captive Consumers.

1.6 Renewable Purchase Obligation (RPO), Renewable Energy Certificates (REC)

1.6.1 SLDC is the Nodal Agency for monitoring RPO for all the following categories of consumers as "Obligated Entity".

- Distribution Licensees
- Captive and Open access consumers

1.6.2 SLDC is the Nodal Agency for Accreditation of Renewable Energy Generators and issuance of Energy Injection Reports under Renewable Energy Certificate (REC) mechanism.

1.7 Implementation of Intra-state ABT in Tamil Nadu

1.7.1 The Intra-state ABT mechanism is being implemented under PSDF scheme with the project cost of Rs. 13.31 Crore out of which, Rs. 11.98 Crore (90%) has been sanctioned by Ministry of Power vide their letter dated 2nd January 2017 for the establishment of IT infrastructure and procurement of CT and PT.

1.8 Renewable Energy Management Centre (REMC)

1.8.1 In line to the target set by Govt. of India of achieving 175 GW of renewable energy by 2022, a central scheme for the establishment of Renewable Energy Management Centre has been approved by Govt. of India towards managing the huge quantum of Renewable energy in the grid in RE rich states including Tamil Nadu.

1.8.2 Tamil Nadu leads the country in Renewable Energy with an installed capacity of about 8618 MW in wind and 5053 MW in Solar. The State has an ambitious plan for promotion of more no. of wind / solar power projects.

1.8.3 The Renewable Energy Management Centre (REMC) Aids the following:

- Effective grid management in handling huge and variable Renewable energy, within the prescribed frequency bandwidth.
- Balancing conventional power generation and RE generation at ease.
- Aid the SLDC to manage the grid without any difficulty, even with the sudden variation of wind / Solar energy.
- The wind forecasting and scheduling forms an integral part of the REMC.