



ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

Vidyut Niyantana Bhavan, Dinnedevaram Road, Kurnool - 518 002, Andhra Pradesh

WEDNESDAY, THE TWENTY FOURTH DAY OF JULY

TWO THOUSAND AND TWENTY-FOUR

(24.07.2024)

Present

Justice C.V. Nagarjuna Reddy, Chairman

Sri Thakur Rama Singh, Member

Sri P.V.R. Reddy, Member

O.P. NO. 06 OF 2024

Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)

Andhra Pradesh Central Power Distribution Corporation Limited (APCPDCL)

Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)

.... Petitioners

and

Andhra Pradesh Power Generation Corporation Limited (APGENCO)

.... Respondent

This Petition has come up for final hearing before the Commission on 21-02-2024 in the presence of Sri P.Shiva Rao, learned Standing Counsel for the Petitioners; Sri K.Gopal Choudary, learned Counsel for the respondent; and Sri M.S.V.L.Narayana, Executive Engineer/Commercial, of the respondents. After hearing the argument of the learned Standing Counsel and carefully considering the material available on record, the Commission passes the following:

ORDER

1. Respondent DISCOMS prayed the Commission to pass an appropriate order as to the approval of the PPA entered into by them with APGENCO to establish two more units (2 X 115 MW = 230 MW) in addition to the existing four units (4 x 115 MW) at Lower Sileru Power House.
2. According to the Petitioners, the brief background of the project and PPA is that the Southern Region Standing Committee on Transmission (SRSCOT) held on 07-09-2018 has agreed to APTRANSCO's proposal to revive the abandoned 220 KV D/C line from Lower Sileru to Bommuru for evacuating total power from Lower Sileru Hydro Electric Project, including the proposed establishment of additional two units (2X115 MW) at Lower Sileru Power House by APGENCO; that APGENCO had floated the tender through its e-procurement platform (Reverse Auction) for the project with an estimated cost of Rs.510.00 Crores (including IDC, DPR, EIA & EMP Studies Charges etc.) and after finalisation of tender, Shirdi Sai Electrical Limited and PES Engineers Private Limited consortium has become LI bidder.; that the project cost was revised from Rs.510.00 Crores to Rs.570.00 Crores after the e-Reverse auction; that APGENCO issued a Lol to Shirdi Sai Electricals Limited and PES Engineers Private Limited (Consortium) to take up the project; that APGENCO requested APDISCOMS to seek the approval of the APERC for the project and that when the DISCOMS sought its approval of this Commission, by its latest order dated 31-12-2022, communicated the following remarks.

“ The proposal envisages a capital investment of Rs.570 Crores (fixed costs in the range of Rs.66 - 110 Crores per annum for 40 years) by APGENCO for setting up the additional two units for the purpose of meeting the peak demand with no additional generation from the Power House. The proposed investment and the fact that there will be no additional generation from the Power House will inevitably lead to an increase in the per-unit tariff.

ii. As the proposed procurement falls under section 62 of the EA 2003, the DISCOMs will have to first enter into a new PPA for the new units/amend the existing PPA and file the same before the Commission for consent. Then, the Commission will take a decision on the PPA after a due regulatory process.

iii. Further, the proposed investment needs to be examined vis-a-vis other cost-effective alternatives as per Clause 4.1.2 of GUIDELINES for Load Forecasts, Resource Plans and Power Procurement issued by APERC in December 2006.

iv. Moreover, APCPDCL has not indicated in its proposal whether the existing evacuation facility/network needs any strengthening to evacuate 660 MW of Peak capacity (after the addition of two new units) from the Power House.

3. The Petitioners submitted that, in view of this Commission's above specific remarks and its another letter dated 31.08.23, APDISCOMs have decided to enter into a separate Power Purchase Agreement (PPA), taking into consideration the following points.

- i. As seen from available data for the last six years, the average running hours of the existing units are about 7.13 hrs/day. If the 2 No. Units are added, the average running hours will be reduced to 4.75, i.e., 2.38 running hours will shift into evening peak/Morning peak hours.
- ii. In the recent RST orders 2022-2023, the average power purchase cost is Rs.4.31 per unit.

- iii. As seen from the Day Ahead Market (DAM) of IEX, the differential price between day and peak for FY 2022-2023 is Rs.2.20/Unit. Due to a coal shortage in the near future, the differential cost would be high, and the difference would also be high if purchases were made through the Real-Time Market (RTM).
- iv. In the recent short-term power purchase orders for peak power through the DEEP E-bid portal, the generator quoted a power purchase cost of about Rs.15.00 per Unit. The differential cost would be $\text{Rs.15.00} - \text{Rs.4.31} = \text{Rs.10.69/Unit}$.
- v. As per CERC Regulation, the maximum DSM rate for UI drawl from the central network is around Rs.8.00/unit.
- vi. As observed from the historical operating time periods, the Sileru plant operates during morning/evening peak load hours and during non-peak time to meet base load and balancing requirements. The balancing requirements arise due to the absorption of high RE generation in the state, which is very volatile. Even though there is no additional quantum of generation, if we can use this new additional capacity along with existing units during peak for balancing the Grid, there will be a large economic benefit because of the market's rate difference between peak and non-peak prices.
- vii. The existing 4 X 115 MW capacity units were commissioned 45 years ago (1977-76) and are experiencing frequent outages. Therefore, the proposed additional two units of 2 X 115 MW would improve the complex's overall availability and optimal utilisation of water sources during peak hours.
- viii. The proposed two additional generating units, along with the existing

Units, need to be strictly deployed for peak load operation so that they will become economically viable. The peak-to-off-peak market price differential is expected to exceed the proposed levelized tariff of Rs 3.38 per Unit.

ix. Also, with strict frequency band narrowing and a DSM regime established, the utilization of these plants can be most effective in cases of intermittent and mandatory sign changes because the penalties for deviations range from Rs.8.00 per Unit to Rs.16.00 per Unit.

4. The Petitioners also have done the cost-benefit analysis in various scenarios and stated that the project's Zero date is 13-04-2022, and the scheduled COD is three years from that date, 12-04-2025. The duration of the PPA shall be 40 years from the project's COD date; That as per Section 86(1)(b) of the Electricity Act 2003, the Commission has wide powers to regulate the process of procurement of power by DISCOMS and to pass orders granting approval or otherwise of it; That as per AP Electricity Reforms Act, 1998 under section 21 (5) the Power Purchase Agreement becomes void without the consent of APERC, which Act was saved as per section 183 of Electricity Act,2003 to the extent of not having inconsistency.

5. In the light of the above pleadings, the short question is whether the PPA can be approved without determining the project's tariff. As per the material on record, the project work has been awarded and commenced. It is expected to be completed in April 2025. After examining the Petitioners' submissions and conducting its own analysis, the Commission is of the view that the commissioning of the additional two units in addition to the existing four units would undoubtedly increase the project's availability, though there is no additional generation during the whole year. It is also estimated

that the tariff increase from the lower Sileru project is about Rs.0.80 paise per unit on a levelised basis. At such a price, if all six units are operated to meet the morning and evening peak demands, it would substantially benefit the DISCOMS as there would be shortages of power during the morning and evening hours as per the Commission's estimation in the Resource plan Order for the 5th control period since the rates from alternative sources including the power markets would be high in general as per the past experience. However, the only worrying point is that the existing evacuation facility is insufficient. The new evacuation facility under construction is going at a snail's pace due to the associated hurdles of forest clearances. As per the records available with the Commission, without the completion of the new evacuation facility, there would be no benefit from the two new units expected to be commissioned in April 2025. Hence, the Petitioners cannot be fastened with any liability such as fixed charges till completion of transmission line and its commissioning even if the new two units are ready for generation. The DISCOMS shall pursue with the APTRANSCO to complete the new evacuation facility with special attention. Nonetheless, the final approval of the PPA shall be obtained after the tariff is determined based on actual cost and other relevant merits. Since in-principle approval of the PPA was sought without determination of tariff by the learned counsel for the Petitioners and the Respondent during the hearing on 21.02.2024, Ex facie, convinced with the advantages mentioned supra, the Commission is inclined to grant in-principle approval for the PPA. However, this approval will not preclude the Commission from taking any appropriate decision on final approval of the PPA and tariff determination based on the merits while hearing the matter. The Petitioners and Respondent shall approach the Commission with their respective petitions for

approval of the PPA and determination of the Tariff within three months after the COD of the two new units.

6. Accordingly, the Petition is disposed of.

Sd/-

P.V.R Reddy
Member

Sd/-

Justice C.V. Nagarjuna Reddy
Chairman

Sd/-

Thakur Rama Singh
Member

