

## ANDHRA PRADESH ELECTRICITY REGULATORY COMMISSION

Vidyut Niyantrana Bhavan, Adjacent to 220/132/33/11 KV AP Carbides SS, Dinnedevarapadu Road, Kurnool - 518 002, Andhra Pradesh. Phones: 08518 - 294823,24,25,26

> TWENTY-FIFTH DAY, THE WEDNESDAY OF JUNE TWO THOUSAND AND TWENTY-FIVE (25.06.2025)

> > Present

## Sri P.V.R. Reddy, Member & Chairman (i/c)

In the matter of the Procurement of power from hydroelectric projects of NHPC and its JVs / Subsidiaries by APDISCOMS

Order

The proposal for procuring power from NHPC's hydroelectric projects and its joint ventures/subsidiaries originated from a communication dated September 5, 2022, from NHPC Limited, wherein NHPC invited Andhra Pradesh DISCOMs to consider long-term power procurement from its upcoming hydroelectric projects. NHPC highlighted that these projects are aligned with the Government of India's hydro development strategy and are eligible under the Hydro Purchase Obligation (HPO) framework notified by the Ministry of Power (MoP). NHPC also stated that the power allocation would be under the Section 62 route, with tariffs to be determined by the Central Electricity Regulatory Commission (CERC).

2. Based on the NHPC's proposal, through a letter dated 24.11.2023, APCPDCL, on behalf of the AP DISCOMs, informed the Commission that it had received proposals from NHPC for the procurement of power from its hydroelectric projects, viz. Teesta VI (500 MW), Rangit IV (120 MW), Ratle (850 MW), Pakal Dul (1000 MW), and Kwar (540 MW) etc. As per the DISCOMs' communication, the proposal to procure power from the aforementioned five hydroelectric projects of NHPC and its subsidiaries was made after examining the projected power deficit situation expected up to FY 2033-34. Based on this assessment, the DISCOMs requested the Commission's approval of 20% of the available capacity from each of the identified projects to meet future power requirements. In this regard, the Commission, in its Resource Plan Order dated June 27, 2025, directed the DISCOMs to reexamine their proposals.

3. Subsequently, the Ministry of Power, Government of India, vide its letters dated 25 February 2025 and 15 April 2025, allocated shares to the State of Andhra Pradesh from the aforementioned hydroelectric projects. These allocations are, inter alia, subject to the Power Purchase Agreements (PPAs) between NHPC and APDISCOMS. APDISCOMS have not entered PPAs and are awaiting the Commission's approval. Accordingly, through subsequent letters dated May 5, 2025, and May 27, 2025, the DISCOMs sought approval for the procurement of power from NHPC projects under long-term Power Purchase Agreements (PPAs). Below is a summary of the power procurement proposed from the hydroelectric projects of NHPC and its JVs:

| S.<br>No | Name of<br>Project    | Capacity<br>(MW) | AP<br>Share<br>(MW) | Commissioning<br>Schedule<br>(Expected) | Indicative<br>Tariff<br>(Rs/unit) | Project Type                         |
|----------|-----------------------|------------------|---------------------|---|-----------------------------------|--------------------------------------|
| 1        | Teesta VI<br>(Sikkim) | 500              | 36                  | Dec 2027                                | 4.07                              | Run-of-River (2.3 hrs<br>peaking)    |
| 2        | Rangit IV<br>(Sikkim) | 120              | 13                  | Dec 2025                                | 4.37                              | Run-of-River with<br>Pondage (3 hrs) |
| 3        | Ratle<br>(J&K)        | 850              | 25                  | Nov 2028                                | 3.92                              | Run-of-River                         |
| 4        | Pakal Dul<br>(J&K)    | 1000             | 52                  | Sep 2026                                | 4.28                              | Run-of-River (3 hrs<br>peaking)      |
| 5        | Kwar<br>(J&K)         | 540              | 42                  | Dec 2027                                | 4.44                              | Run-of-River (2.7 hrs<br>peaking)    |

4. In addition to meeting future energy requirements, inter alia, the main grounds stated by DISCOMs for procuring power from the above projects are the Hydro Power obligations. (HPO) obligations under the Ministry of Power's notification dated 20.10.2023, as per the Energy Conservation Act, through hydro power projects (including PSPs and SHPs) commissioned after 31 March 2024, the waiver of ISTS charges applicable to the hydel projects where the construction of the work was started and the PPA is signed till 30.06.2025.

5. The Commission issued public notices inviting stakeholders to submit their views, suggestions, and objections. Taking into account requests for additional time from some stakeholders, the Commission extended the timeline for stakeholder comments until **June 10, 2025,** and for DISCOMs to file their responses until **June 16, 2025**. The proposals, communications, and relevant extracts from the APERC Resource Plan Order (5th Control Period) were made available on the Commission's website for stakeholders' reference. In response to the Commission's public notice, objections, suggestions, and views from four stakeholders have been received. The DISCOMS have also filed their response to the stakeholders' views. The main objections are as follows.

- i. The proposal presents a fait accompli, with the MoP allocation being treated as mandatory and no scope for substantive regulatory review.
- ii. DISCOMs are seeking consent before tariff determination by the CERC,

without disclosing final PPAs, resulting in opacity and denying meaningful public participation.

- iii. Indicative tariffs are considered high for hydro projects, and approval at such rates could lock consumers into an avoidable burden.
- iv. Tariff uncertainty and the "must-run" nature of hydro were flagged as creating financial risk due to the possibility of thermal plants backing down.
- v. Competitive bidding, as mandated under the National Tariff Policy (NTP), is being bypassed in favour of a cost-plus model without sufficient justification.
- vi. DISCOMs have not demonstrated the necessity of the proposed hydro power, especially when RE availability and forecasted demand are already addressed in the 5th Control Period resource plan.
- vii. Stakeholders flagged the absence of details on transmission losses, ISTS waiver timelines, and PPA duration.
- viii. The PPAs were said to offer no assured economic benefit, 24x365 availability, grid flexibility, or reduction in average power cost.
- ix. The regulatory independence of APERC in the face of central directions, especially regarding RPO/HPO targets and MoP allocations.
- x. The projects' usefulness in addressing morning and evening peaks is limited due to the nature of generation from run-of-river hydro plants.

6. The APDISCOMs responded to the above objections. The summary of APCPDCL's response is as follows.

- i. The MoP allocated power to Andhra Pradesh, and the proposal is aligned with the obligations under the Energy Conservation Act and the MoP notifications on RCO/HPO.
- ii. The Hon'ble CERC will determine the tariff, and the current rates are indicative only. The PPAs will be submitted to APERC for final approval after the tariff determination.
- iii. Procurement from a Central Public Sector Utility (CPSU), such as NHPC, is lawful under Section 62 and does not require competitive bidding. Both competitive bidding and Section 62 routes are permissible.
- iv. They have not signed any PPAs and have sought prior approval from the Commission, as per precedent.
- v. The proposal is part of a long-term mix to ensure energy transition.
- vi. The concerns about fixed costs and RE balancing are overstated, and

generation diversity is being planned accordingly.

vii. Their commitment is to follow the Commission's directions and maintain transparency in future actions.

7. The consistent approach taken by this Commission is that the approval of any power procurement shall be based on the need for power and the tariff at which the power is proposed to be procured. Having examined the proposals vis a vis the stakeholders' views and DISCOMS' responses, **the main point for consideration by the Commission is the need for the procurement of power from NHPC projects**, as the tariff shown is only indicative and is to be determined by the CERC based on actual data.

8. Therefore, the Commission proposes to examine the DISCOMS' submission regarding meeting future energy requirements from these projects. In this regard, it is relevant to mention the "Way Forward" recommended to the DISCOMS in the Load Forecast and Resource Plan Order dated June 27, 2024, where in the Commission has recommended incremental base capacity additions based on an 80% base load requirement, assuming normative performance of base load stations to ensure a 24/7 supply during the fifth & 6th control period (FY2029-30 - FY2033-34). The proposed Hydropower procurement is not a base capacity and hence it is not aligned with the Commission's recommendation.

Furthermore, the Polavaram hydroelectric project, which is under execution and being taken up by the State Government-owned APGENCO, which was considered under the power procurement plan approved by the Commission in the Resource Plan Order for the 5th and 6th control periods, is expected to be commissioned in full by the end of FY2027-28 as per the commitment of GoAP. As per the data on record, all proposed projects from NHPC are also expected to be commissioned by FY2027-28. Both the NHPC and Polavaram hydroelectric projects are expected to generate power predominantly during the monsoon months (June to September). As a result, the proposed NHPC procurement does not add value in addressing intra-day or seasonal demand mismatches, particularly during the morning and evening peak hours when supply deficits are typically observed. Additionally, the Hydroelectric projects carry a "must-run" status as per the Indian Electricity Grid Code. Consequently, when generation from such sources is high, other generating stations, particularly thermal plants, may have to be backed down. Therefore, the Commission finds no justification in creating long-term (40-year) liabilities on consumers by entering into additional PPAs for hydro power from NHPC's central projects, particularly when such procurement is not required to meet the State's obligations.

Furthermore, as can be seen from the data, out of the five projects, four are run-of-river plants without a pondage facility. All these plants are under the dispatch instructions of the concerned Regional Load Despatch Centres, and the ability of these projects to meet the peak power requirements of APDISCOMS is also doubtful.

9. After analysing the ability of the proposed power procurement to meet the future energy demand of APDISCOMS as outlined above, the Commission proposes to examine HPO obligations under the MoP notification dated 20.10.2023, as follows.

- i. According to the Commission's estimates, the projected generation is insufficient to meet the notified HPO obligations for the State in the relevant years. Thus, the proposed procurement fails to meet the compliance requirements of HPO.
- ii. By FY 2028–29, the full capacity of the NHPC projects is expected to become operational. However, around the same time, the 960 MW Polavaram hydroelectric project, being developed within Andhra Pradesh, is also projected to be fully commissioned. The energy generation from Polavaram alone is adequate to fulfil the Hydro Purchase Obligation (HPO) targets of the State beyond that period. This is in addition to the **two 115 MW hydel (230 MW)** units from the Sileru complex, which are expected to be commissioned at any time in FY2026-27 and have received the Commission's approval.
- iii. The Integrated Clean Energy Policy, 2024 of the Government of Andhra Pradesh encourages the development of mini and small hydro projects within the State. If additional hydro procurement is necessary, the DISCOMs have the option of inviting competitive bids for such projects. This would not only enhance local generation but also ensure tariff discovery through transparent means in line with the National Tariff Policy.
- Furthermore, as per the Resource Plan Order dated June 27, 2024, issued by the iv. Commission, Andhra Pradesh's DISCOMs projected electrical energy consumption for FY 2025-26 to FY 2028-29 ranges from 86.595 BU to 105.91 BU. Applying the HPO targets of 1.22% to 1.42% as per the MoP notification, this translates to a hydro purchase obligation of approximately 1,056 MUs to 1,503 MUs annually. However, CEA data indicate that only 1,000 MW of large hydro capacity and 100 MW of small hydro capacity have been commissioned nationwide after March 31, 2024, corresponding to a mere 2887 MUs (assuming a 30% PLF). This national availability may fall significantly short of aggregated HPO demand across all obligated entities. In this context, for meeting the HPO obligations till Polavaram Project is commissioned, the Commission is of the view that DISCOMs may submit a representation to the Ministry of Power through the Government of Andhra Pradesh seeking an appropriate relaxation or deferral in HPO targets, or clarification on compliance mechanisms, particularly given the limited availability of qualifying hydro generation in the short term.

10. Based on the analysis in paragraphs 8 and 9, the Commission is not inclined to approve the power procurement proposals under long-term power purchase agreements with NHPC and its joint ventures. As the proposals are rejected, the Commission felt that there is no requirement to specifically address the objector's views and other merits and demerits regarding ISTS charges.

Sd/-P.V.R Reddy Member & Chairman <sub>i/c</sub>



## List of Objectors

| S.No | Name of the Objector  |  |  |  |  |  |  |
|------|---|--|--|--|--|--|--|
| 1    | M. Venugopala Rao, Senior Journalist & Convener, Centre for Power Studies, Hyderabad. |  |  |  |  |  |  |
| 2    | Ch. Babu Rao, State Secretariat Member, CPI(M),<br>Vijayawada.                        |  |  |  |  |  |  |
| 3    | Kandharapu Murali, Secretariat Member, CPI(M), Tirupati District<br>Committee         |  |  |  |  |  |  |
| 4    | Sri. U.M.Kumar, Secretary, AP Textiles Mills Association                              |  |  |  |  |  |  |

