

**ODISHA ELECTRICITY REGULATORY COMMISSION**  
**BIDYUT NIYAMAK BHAWAN**  
**PLOT NO.-4, CHUNUKOLI, SHAILASHREE VIHAR**  
**BHUBANESWAR - 751 021**

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**Present: Shri G. Mohapatra, Officiating Chairperson**  
**Shri S. K. Ray Mohapatra, Member**

**Case No. 59/2022**

**M/s. GRIDCO Ltd. .... Petitioner**  
**Vrs.**  
**M/s. NHPC Ltd. & Others ..... Respondents**

In the matter of: **Application under Section 86(1)(6) of the Electricity Act, 2003 read with Section 21(4)(6) of the OER Act, 1995 and other enabling provisions seeking approval of Power Purchase Agreement (PPA) executed between NHPC Ltd. and GRIDCO Ltd. on 21.02.2017 for Purchase of 105 MW (20.59% of installed capacity) of power from Teesta-V Hydro Electric Project, Sikkim.**

For Petitioner : Shri P.K. Das, CGM (PP) and Ms. Murchhana Dhar, DGM (PP), GRIDCO Ltd.

For Respondent : Ms. Sonali Patnaik, ALO I/c., DoE, GoO, Shri V. Wagle representative of TP Southern Odisha Distribution Ltd., Shri Punit Munjal (Head Regulatory Affairs), TPCODL, Shri K. C. Nanda, GM (RA& Strategy), TPWODL, Ms. Malancha Ghose, DGM (RA), TPNODL.  
Nobody represented on behalf of M/s. NHPC Ltd.

**ORDER**

**Date of hearing: 27.12.2022**

**Date of Order:16.01.2023**

The petitioner GRIDCO Ltd. has filed the present petition under section 86 (1) (6) of Electricity Act, 2003 read with Section 21(4)(6) of Orissa Electricity Reform Act,1995 (OER Act 1995) including other enabling provisions of the Act and Regulations. GRIDCO, the petitioner being a bulk supplier and deemed licensee of trading of electricity, has filed this application for according necessary approval of the revised Power Purchase Agreement (PPA) dated 21.02.2017 signed between NHPC & GRIDCO for purchase of 105 MW (20.59% of installed capacity) of power from Teesta-V Hydro Electric Project, Sikkim as allocated by Ministry of Power (MoP), Govt. of India (GoI).

2. The Teesta Hydro Electric Project, Stage-V, Sikkim is having an installed capacity of 510 MW (3x170MW). The Tariff of the Hydro Electric Project was determined by CERC through multi-year tariff application after Commercial Operation Date (CoD).
3. The Petitioner-GRIDCO has submitted the following:
  - (a) The Power Purchase Agreement was signed between GRIDCO & NHPC Ltd. on 04.04.2008 for purchase of 105MW (20.59% of installed capacity) of power from

Teesta-V Hydro Electric Project, Sikkim as allocated by Ministry of Power Govt. of India. The validity of the PPA was for 5 years from the date of commercial operation of the project and the said PPA expired on 09.04.2013.

- (b) A meeting was convened on 01.10.2013 by NHPC with the beneficiaries of the Eastern Region to resolve the pending commercial issues and had furnished a modified draft BPSA vide its letter dated 05.06.2014. On 15.05.2015 NHPC Ltd. had intimated their intention of extending the validity of the PPA up to a period of 35 years from the date of commissioning of the last unit on the same terms and conditions as laid down in the original signed PPA and had requested GRIDCO to convey its consent for extension of PPA in respect of Teesta-V power station.
- (c) A meeting was held between GRIDCO & NHPC on 10.11.2016 & 11.11.2016 and the draft revised PPA was finalized for signing of the same. The revised Power Purchase Agreement was signed between NHPC Ltd.& GRIDCO Ltd. on 21.02.2017 for purchase of 105MW (20.59% of installed capacity) of power from Teesta-V Hydro Electric Project, Sikkim as allocated by Ministry of power, Govt. of India.
- (d) The revised Power Purchase Agreement signed on dated 21.02.2017 between GRIDCO Ltd. & NHPC Ltd were placed before Board of Directors (BoD) of GRIDCO in their 170<sup>th</sup> meeting held on 11.09.2017 for approval and the revised PPA was approved for a period of 35 years from the date of commercial operation of the last unit or for the balance normative life of NHPC station whichever is later. The date of commercial operation of the last unit of Teesta-V was 10.04.2008. Hence, the validity of the PPA executed between GRIDCO and NHPC ends on 10.04.2043.
- (e) The power is being drawn from Teesta-V Hydro power station since 10.04.2008. Further considering the demand of the state, the Commission has been allowing GRIDCO to procure power from Teesta-V in its ARR Order for different years. The Commission approves the quantum of energy purchased by Teesta-V Power Station as well as the procurement cost of Teesta-V Power Station in the ARR of GRIDCO from FY-2009-10 onwards and the per unit cost of Teesta-V Power Station also comes in the Merit Order List.
- (f) The Ministry of Power at Para-6 in its Order dtd.22.07.2022 stipulates that:  
***“ From F.Y.-2022-23 onwards, the energy from all Hydro Power Projects (HPPs) will be considered as part of RPO .The HPO trajectory ,as has been notified earlier will continue to prevail for LHPs commissioned after 8<sup>th</sup> March 2019.All other HPPS will be considered as part of “RPO” under category of “other RPO”***  
In view of above, the power from Teesta –V Hydro Electric Project can be considered for meeting the “other RPO” as per above notification of the Ministry of Power.

- (g) The Hydro Power is environmental friendly green power and purchase of Hydro Power is always preferable in order to maintain a good Hydro-Thermal Mix.
- (h) In terms of Section (86) (1) (b) of the Electricity Act, 2003, read with Section 21(4) (6) of the Orissa Electricity Reform Act 1995 and Clause 51 of the Orissa Electricity Regulatory Commission (Conduct of Business) Regulations, 2004, the Power Purchase Agreements entered into by the Applicant/Petitioner herein are required to be submitted before the Commission for approval of the same. Accordingly, the petitioner, GRIDCO is submitting herewith the Power Purchase Agreement dated 21.02.2017 for Teesta-V Power Station executed between NHPC and GRIDCO for due approval by the Commission considering the fact that, procurement of power from the said Generating Station is being factored in the ARR order of GRIDCO Ltd. from time to time. Therefore, GRIDCO prayed before the Commission to condone the delay for filing the petition and gracious enough to approve this PPA to safeguard the interest of the consumers as stipulated under section 61 (d) of the Electricity Act, 2003.
4. The respondent TPWODL has submitted the following:
- (a) The Commission in BST order for FY2022-23 approved total central hydro power energy of 1221.62 MU at an average tariff of Rs. 2.75/kWh. The Commission has approved 505.93 MU energy from TEESTA-V project at a tariff of 198.75 Paise/Unit which is the lowest among all the central hydro power plants. Therefore the present approved tariff of Teesta-V is also lower than the APPC of FY 22-23.
- (b) As per MoP, GoI order dated 22.07.2022 regarding RPO and Energy Storage Obligation trajectory till FY 2029-30, “from 2022-23 onwards, the energy from all Hydro Power Projects (HPP) will be considered as part of RPO.” Therefore, energy procured from Teesta-V project can also contribute into RPO target of the State of Odisha.
5. The submission of TPSODL are as follows:
- (a) The purchase of power from this Power plant is being affected from the date of the COD i.e. 10<sup>th</sup> April 2008. GRIDCO has now approached the Commission for approval of the PPA after a period of about 14.5 years since its signing. TPSODL further stated that GRIDCO in the present petition is regularizing the power purchase agreement with NHPC.
- (b) The tariff from the Power Plant is being determined by the CERC under Sec 62 of the Electricity Act 2003 and as per the tariff filing of NHPC with the CERC for FY 2019-24, the Saleable Design Energy from the power plant is 2236 MUs and the tariff from the power plant works out to about Rs 1.92 per kWh from Teesta V project.
- (c) The tariff of Rs 1.92 per kWh is competitive for GRIDCO as well as for the DISCOMs of ODISHA.

- (d) The purchase from the Teesta V power plant is being approved by the Commission in various annual tariff orders of GRIDCO. Hence the approval of the Commission through this petition would not impact the selling price of GRIDCO to DISCOMS.
- (e) It is agreeable to the purchase of power by GRIDCO from Teesta V Hydro Project and further stated in light of the order of 22<sup>nd</sup> July 2022 of Ministry of Power, this power would qualify for meeting requirement under “Other RPO” of the ODISHA state.
6. The Respondents TPCODL and TPNODL have agreed to the submissions of TPWODL and TPSODL.
7. No submission has been made by Department of Energy, Government of Odisha.
8. The Commission heard the Petitioner and Respondents through virtual mode and considered their written submissions & arguments. The Commission observes that-
- (a) The Ministry of Power, GoI had allocated 105 MW (20.59% of installed capacity) of power to Odisha from the Teesta HEP Stage-V having an installed capacity of 510 MW (3x170 MW). The tariff is being determined by OERC.
- (b) GRIDCO and NHPC Ltd. had entered into a PPA on 4th April 2008 for a period of 5 years from the date of commercial operation of the project. As per the terms of the said PPA, the agreement expired on 09.04.2013. Fresh negotiations were under taken by GRIDCO and NHPC with the intention of extending the validity of the PPA for a period of 35 years from the date of commissioning of the last unit (i.e. 10.04.2008) on the same terms and conditions as laid down in the original signed PPA. Accordingly, the validity of the PPA executed between GRIDCO and NHPC will end on 10.04.2043. The revised PPA was signed between GRIDCO Ltd. and NHPC Ltd. on 21.02.2017.
- (c) The Board of Directors had also approved the revised PPA, executed between NHPC Ltd. & GRIDCO Ltd. on 19.09.2017 for a period of 35 years from the date of commercial operation of the last unit (i.e. 10.04.2008) or for the balance normative life of NHPC station whichever is later.
- (d) The power from the said HEP is being drawn since 10.04.2008. Considering the demand of the State and requirement of hydro power during peak hours, the Commission has been approving, in the ARR of GRIDCO, for procurement of power from the Teesta-V HEP from the FY 2009-10 onwards.
- (e) Moreover, the power from the Teesta-V project is available at a tariff which is the lowest among all the central sector hydro power projects and is also lower than the Average Power Purchase Cost (APPC) of FY 22-23. The cost of power from the

HEP comes in merit order and there is need for this hydro power to meet “other RPO” as per notification (dated 22.07.2022) of GoI.

- (f) The availability of Hydro Power (an environmental friendly green power) is always desirable to maintain good Hydro-thermal mix.
- (g) All four distribution licensees (TPWODL, TPCODL, TPNODL, TPSODL) are also agreeable to purchase of power by GRIDCO from Teesta-V HEP as the power procurement cost is the lowest among Central Hydro Plants and is being factored in ARR of GRIDCO from time to time and will also contribute to RPO target of the State.
- (h) The Commissions has examined the existing PPA and revised PPA and found that there are certain variations in two clauses regarding duration of agreement and Payment security mechanism, which have been revised and signed by both GRIDCO and NHPC.

9. The salient features of PPA are as follows:

- i. The installed capacity of Teesta-V HEP of NHPC is 510 MW (3X170 MW) and allocation of power shall be in accordance with instruction issued by MoP, GoI from time to time.
- ii. The energy to be supplied shall be in the form of 3 phase, 50 hertz alternating current at a voltage of 400 kV or as applicable. The evacuation of power from the delivery point of NHPC station shall be through the transmission system of POWERGRID or any authorized agency as the case may be.
- iii. The supply of energy to bulk power customer is subject to outages determined by NHPC in consultation with ERPC/ERLDC.
- iv. The bulk power customer shall apply to CTU for grant of connectivity in terms of CERC (Grant of Connectivity, Long-term and Medium-term Open Access in Inter-State Transmission and related matters) Regulations, 2009.
- v. The metering arrangement including its installation, testing operation, maintenance, collection, transportation and processing of data required from energy exchange shall govern in accordance with CEA (Installation and Operation of Meters) Regulations, 2006 amended from time to time.
- vi. The quantum of energy sold and energy bill raised by NHPC to the bulk power customer shall be on the basis of REAs issued by ERPC.
- vii. Tariff to be charged shall be as per tariff Notifications /Orders/ Directions issued/ by CERC from time to time.

- viii. The payment of bills for supply of power from NHPC station may be made by the bulk power customers through RTGS/NEFT or through a confirmed revolving irrecoverable Letter of Credit to be established in favour of NHPC which shall be kept valid at all the times during the validity of the agreements or extended period.
  - ix. If the bills are not paid within 60 days or payment security mechanism is not maintained, NHPC shall have the option to regulate/ or reallocated the power in accordance with the guidelines/directives issued by CERC/ GoI from time to time.
  - x. All disputes shall be dealt in accordance with the provisions of the Electricity Act, 2003. All other disputes which are not covered under this Act, shall be referred for arbitration. The venue of the arbitration proceedings shall be at New Delhi/Faridabad/Bhubaneswar.
  - xi. This agreement shall remain operative for 35 years from the date of commercial operation of the last unit or balance normative life of NHPC station whichever is later.
10. Considering above observations and consequential benefit, the Commission grants approval of the revised Power Purchase Agreement (PPA) dated 21.02.2017 signed between NHPC & GRIDCO for purchase of 105 MW (20.59% of installed capacity) of power from Teesta-V Hydro Electric Project, Sikkim as allocated by Ministry of Power, Govt. of India for a period of 35 years from the CoD of last unit (i.e. 10.04.2008), on the same terms and conditions as laid down in original PPA in order to meet the HPO as well as to meet peak demand shortage from 2022-23 onwards. The availability of adequate Hydro Power in Generation mix is the need of hour to accommodate large scale integration of generation from variable Energy Resources.
11. The petitioner has prayed for *post-facto* approval of PPA executed between GRIDCO and NHPC Ltd. on 21.02.2017 after a gap of more than 5 years and to condone the delay. The Commission is of view that post-facto approval of PPA is not proper & desirable. In this regard, the letter No.114 dated 19.01.2021 of the Commission should be strictly followed.
12. The case is accordingly disposed of.

**Sd/-**  
**(S. K. Ray Mohapatra)**  
**Member**

**Sd/-**  
**(G. Mohapatra)**  
**Officiating Chairperson**