

ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO. 4, CHUNOKOLI, SHAILASHREE VIHAR,
BHUBANESWAR-751021

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

Case No. 51/2024

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

In the matter of: **Application under Section 86 of the Electricity Act, 2003 read with Section 21 of the Odisha Electricity Reform Act, 1995 and other enabling provisions seeking approval of the Commission with regard to the Supplementary Power Purchase Agreement (Amendment to the PPA dated 19.05.2021) executed between GRIDCO and NHPC Ltd. for procurement of 40 MW Solar power towards fulfilling of the Renewable Purchase Obligation.**

For Petitioner: Shri B. K. Das, Sr. GM(PP) & Ms. Saswati Mohapatra, AGM(EL.), GRIDCO.

For Respondents: Shri Omkar Yadav & Shri R. K. Mallick, NHPC Ltd.; Ms. Subhashree Das, AGM(RT&C), OPTCL; Shri Bharat Bhadawat, Chief Regulatory Affairs, TPCODL; Shri K. C. Nanda, GM (RA & Strategy), TPWODL; Ms. Malancha Ghose, DGM(RA), TPNODL; Shri Soumitry Dey, TPSODL; and Ms. Sonali Pattnaik, Manager (Legal), DoE, GoO.

ORDER

Date of Hearing: 27.08.2024

Date of Order: 25.09.2024

1. This Petition has been filed by M/s. GRIDCO under Section 86 of the Electricity Act, 2003 read with Section 21 of the Odisha Electricity Reform Act, 1995 and other enabling provisions seeking approval by the Commission with regard to the Supplementary PPA (Amendment to the PPA dated 19.05.2021) executed between GRIDCO and NHPC Ltd. for procurement of 40 MW Solar power towards fulfilling of the RPO. The petitioner has prayed before the Commission for approval of the Supplementary PPA dated 29.06.2024 for meeting the RPO targets.
2. The Petitioner- M/s. GRIDCO Ltd. has submitted as stated hereinafter:
 - a) M/s GRIDCO had executed Power Purchase Agreement (PPA) with NHPC on 19.05.2021 towards procurement of power from the proposed 40 MW Solar Power Project for a period of 25 years at the applicable tariff of Rs.2.75/kWh to be set up in Ganjam district. The said PPA along with the terms and conditions have already been

approved by OERC vide order dated 16.09.2021 passed in Case NO.42 of 2021. As per the terms and conditions of the PPA, the SCOD of the said project was 12 months of signing of the PPA i.e. May, 2022.

- b) When the commissioning of the solar project got delayed, GRIDCO, vide its letters dated 21.10.2022 & 12.04.2023, requested NHPC to provide the status of the said project. NHPC, vide letter dated 02.05.2023, intimated that the EPC contractor M/s Tata Power Solar Systems Limited has abandoned the site work and re-tendering would be conducted by NHPC for the said project, which might require another two years for commissioning. Further, NHPC vide its letter dated 26.03.2024 intimated that the EPC contract awarded by it for the project to M/s Tata Power Solar Systems Limited was foreclosed due to various contractual disputes/arbitration related to applicability of BCD and site problems. Hence, re-tendering was taken up by NHPC for setting up of the solar project.
- c) Following the re-tendering process, NHPC has confirmed that the tariff will remain same as the approved PPA i.e. Rs.2.75/kWh. However, the project previously scheduled to be commissioned in the month of May, 2022 is now rescheduled to be commissioned within 15 months from the date of execution of the Amended PPA. The power generated from the project is to be evacuated at 220 kV through LILO provision in the existing 220 kV Bhanjanagar-Nayagarh line.
- d) NHPC has also mentioned that there is a reduction of about 12 MU per annum in projected generation (from 89.02 MU to 76.91 MU with change of CUF from (23.10% to 21.93%) due to topographical constraints and calculation of energy from the Solar PV Project through updated software for simulation.
- e) MNRE, vide letter dated 29.04.2024, has granted time extension till 30.06.2025 for the said Solar PV Project for award of work to EPC contractor and acceptance by the designated entity to purchase power at the discovered tariff. OPTCL has also extended the connectivity permission for a period of one year i.e. upto 15.04.2025.
- f) The GRIDCO Board has accorded consent for amendment of the PPA dated 19.05.2021 towards procurement of power from the proposed 40 MW ground mounted Solar PV project within certain conditions subject to approval of OERC.
- g) In line with the mutual agreement, the Supplementary PPA was executed on 29th June, 2024 with respect to the following extent only:
 - i. Clause 1.xxxvi & 5.1.1- SCOD- 15 months from the date of execution of the amended PPA.

- ii. Clause 4.1 – Right to Contract capacity & Electricity – within the range of 1.730 – 2.115 MU/MW/Year calculated at the CUF of 21.93% \pm 10% as discovered by NHPC during EPC bidding process at the applicable tariff of Rs.2.75/kWh.
 - iii. New Clause (4.2) – The SPD will be allowed to revise the CUF once within the first year after COD of full capacity and subsequently leading to change in energy range.
 - iv. Additional condition to Clause 5.1.2 (Penalty on delay in Commissioning) – Any liquidated damage collected by NHPC from the EPC Contractor shall be passed on to GRIDCO.
 - v. Clause 5.2.1 & 5.2.2 (Penalty for shortfall) – Minimum solar generation of 1.730 MU/MW/Year.
3. The Respondent- M/s. TPCODL has submitted that while TPCODL agrees in principle to the supplementary PPA on the grounds that the levelized tariff remains unchanged at Rs.2.75/kWh and the project will help in fulfilling RPO compliance of the state, however, details requirement of the Commission as mentioned at Para 14 of the Order dt.16.09.2021 in Case No.42 of 2021 has not been met by the Petitioner in the current petition.
4. The Respondent- M/s. TPWODL has submitted the followings:
- a) TPWODL had earlier accorded its no objection to the Applicant for procurement of power from the said 40 MW solar power project as the project was planned to be developed within Odisha and was expected to bring in several direct and indirect benefits to the people of the State.
 - b) The Commission may consider its findings in Order dated 16.09.2021 in Case No.42 of 2021 wherein the Commission had approved the draft PPA to be executed between GRIDCO Ltd. and NHPC Ltd. for procurement of 40 MW Solar power from NHPC Ltd. towards meeting Solar RPO at a tariff of Rs.2.75/KWh subject to the following:
 - i. To meet RPO targets, GRIDCO will have to go for procurement of more RE;
 - ii. Ministry of Power has issued guidelines to enable DISCOMs to either continue or exit from PPAs with the Generators after completion of the terms of the PPA i.e. 25 years or a period specified in the PPA.

- iii. GRIDCO has a shortfall in fulfilling its non-solar RPO which can also be met from excess solar availability, in case, the shortfall is within 15% as per the draft RPO Regulations.
 - iv. NHPC needs to ensure that the project should be commissioned before time so that the BCD would not be applicable to this project.
 - v. In future while making an application for procurement of Renewable Energy, GRIDCO should furnish the estimated consumption of DISCOMs for next five years along with availability of power to GRIDCO from different sources, excluding hydro power availability.
 - vi. In addition, GRIDCO should also furnish the remaining lives of the existing PPAs with the Thermal power stations while making such applications.
- c) The current scenario of the above findings in Case No.42 of 2021 are as under:
- i. As per the draft OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2024, GRIDCO is the state nodal agency and any excess energy consumption under other renewable energy component in a particular year, may be utilized to meet the shortfall in achievement of stipulated Wind RE or Hydro RE Consumption.
 - ii. With the current change in EPC contractor, the COD of the project may be advanced till 30.06.2025 (as per MNRE) implying levy of Basic Custom Duty (BCD) (Solar module – 40% and Solar cell – 25% from present 0%). GRIDCO needs to ensure that such costs do not impact the tariff from the project in near future.
 - iii. GRIDCO has not furnished the estimated consumption of DISCOMs for next 5 years along with availability of power to GRIDCO from different sources, excluding hydro power availability as directed.
 - iv. GRIDCO, in the instant application, has not furnished the details with respect to the remaining lives of the existing PPAs with the Thermal power stations.
- d) As per the ARR of GRIDCO for FY 2024-25, there is about 2196 MUs of surplus energy in the state considering the demand of 37456 MU.
- e) The lives of the PPAs with the existing Thermal Stations with which GRIDCO has tied up and the impact of terminating the PPAs may also be analyzed keeping in view the additional RE procurement in order to reduce adverse tariff impact on consumers.
- f) A holistic view may be taken by the Commission while considering any new capacity addition whether conventional or renewable. Suitable opportunities may please be

offered to the various industries/MSME & commercial sectors for enhancement their consumption with competitive tariff for benefit of all the stakeholders and improvement of states economy including creation of employment opportunities.

- g) In view of the above, TPWODL submits that the Commission may consider the upcoming power demand scenario of the State and the place of the present Generator in terms of Merit Order Dispatch principle.
5. The Respondent – OPTCL has submitted that it has no objection against the prayer of GRIDCO for meeting its RPO.
6. The Petitioner- M/s. GRIDCO in its Rejoinder has submitted the followings:
- a) In line with the directions of the Commission, NHPC, vide its letter dated 30.08.2024, has submitted the clarification regarding revision of CUF % along with the Simulation Report. NHPC has confirmed that the mutually agreed levelized tariff of Rs. 2.75/kWh will remain same as per the original PPA dated 19.05.2021 and there shall be no additional impact of BCD on the said tariff.
 - b) NHPC has also clarified that the reduction in annual solar generation and CUF is due to reduction in annual Global Horizontal Irradiance (GHI) to 1690.7 kWh/ m² as discovered through simulation study executed through an updated software PV Syst-V 7.4.5.
 - c) In line with the OERC order dated 16.09.2021 passed in Case No.42 of 2021 and in compliance to the submissions of TPCODL and TPWODL, the estimated consumption of DISCOMs and the availability of power to GRIDCO from different sources for next five years has been submitted by GRIDCO along with the rejoinder.
 - d) Regarding observation of OPTCL at para 1(g) of its submission, GRIDCO submitted that OPTCL has merely mentioned the conditions of the extension of the validity of the connectivity permission granted to NHPC, which will be completed by them within the timeline.
 - e) None of the Respondents in their submissions have raised any objection to the supplementary PPA dated 29.06.2024. Furthermore, the said 40 MW Solar project of NHPC will be commissioned in the State at the lowest tariff of Rs.2.75/kWh for any solar project so far.
7. Heard the Petitioner and Respondents through Hybrid mode and considered their written notes of submissions. During hearing on 27.08.2024, the Commission had directed GRIDCO to submit supporting documents for revision of CUF along with

impact of Basic Custom Duty on the tariff of the said project and also to submit the demand projection and power availability for the state for next 5 years. GRIDCO has submitted the same. Basing on the above submission of GRIDCO, the Commission have the following observations:

- a) GRIDCO had executed a PPA with NHPC on 19.05.2021 for power procurement from the proposed 40 MW solar power project to be set up at Landeihil Village in Ganjam district for 25 years at a tariff of Rs 2.75/ kWh. The Commission, vide Order dated 16.09.2021 in Case No. 42/ 2021, had approved the PPA.
- b) NHPC, vide its letter dated 02.05.2023, intimated GRIDCO that EPC contract had been awarded to M/s Tata Power Solar Systems Ltd. which was foreclosed due to various contractual disputes/ arbitration related to applicability of BCD and site conditions and retendering would be done by NHPC, which may require another two (2) years for commissioning.
- c) NHPC has confirmed that the tariff (Rs. 2.75/kWh) will remain unchanged and there shall be no additional impact of BCD on the said tariff, however, there shall be a reduction in projected generation of energy by 12 MUs per annum due to change in CUF (i.e. $21.93\% \pm 10\%$: 1.73-2.115 MU/ MW/year) because of reduction in annual GHI as discovered through simulation study conducted by NHPC. GRIDCO has also submitted that the tariff is the lowest for any solar project so far.
- d) The supplementary PPA was executed on 29.06.2024 with the following provisions:
 - i. SCOD shall be 15 months from the date of execution of the amended PPA.
 - ii. GRIDCO at any time during the contract year shall be obligated to purchase any energy from the developer within the range of 1.730 – 2.115 MU/MW/year calculated at CUF of $(21.93 \pm 10)\%$ at a tariff of Rs 2.75/ kWh.
 - iii. SPD will be allowed to revise CUF once within the first year after COD of full project capacity.
 - iv. Any liquidated damage collected by NHPC from the EPC Contractor shall be passed on to GRIDCO.
 - v. Minimum solar generation shall be 1.730 MU/MW/year failing which the developer shall be liable to pay penalty to GRIDCO except for force majeure.
- e) The Board of Directors of GRIDCO have consented for amendment of PPA dated 19.05.2021 subject to approval by the Commission and none of the Respondents have raised any objection to Supplementary PPA dated 29.06.2024, whereas TPCODL & TPWODL have agreed in principle to the amendment of the PPA.

- f) The project could help GRIDCO in fulfilling RPO requirement of the state and project is likely to be commissioned within 15 months from date of execution of amendments to the PPA.
- g) GRIDCO has submitted the estimated consumption of power of DISCOMs and availability of power from different sources for next five (5) years indicating surplus power availability based on annual average demand. However, there is deficit in peak demand during that period.
8. The Commission, vide its Order dated 16.09.2021 in Case No. 42 of 2021, had approved the PPA dated 19.05.2021 for procurement of power produced from the said 40 MW solar project by GRIDCO. Since the EPC contract was foreclosed due to various contractual disputes/ arbitration and site conditions, subsequent retendering has been made. Therefore, NHPC has sought another two (2) years for commissioning of the project at Landeihil in the District of Ganjam (Odisha). Accordingly, the Supplementary PPA was signed on 29.06.2024 incorporating the revised timeline for completion of project and reduction of generation due to reduction in the CUF. The power generated from the project is to be evacuated at 220 kV level through LILO of existing Bhanjanagar- Nayagarh 220 kV line. At present GRIDCO is unable to comply its RPO and this renewable power from NHPC is required for RPO compliance of the state in future years.
9. In view of the above observations and considering the necessity for extension of COD without any increase in tariff, the Commission hereby approves the Supplementary PPA (Amendment to the PPA dated 19.05.2021) executed between GRIDCO and NHPC Ltd. for procurement of 40 MW Solar power without change of tariff (i.e. Rs 2.75/ kWh). NHPC is directed to complete the aforesaid project within the agreed timeline.
10. With above observations, the Case is disposed of.

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

Sd/-
(G. Mohapatra)
Officiating Chairperson