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ODISHA ELECTRICITY REGULATORY COMMISSION
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Present: Shri G. Mohapatra, Officiating Chairperson
Shri S. K. Ray Mohapatra, Member

Case No. 48/2024

M/s TPCODL	Petitioner
Vrs		
M/s OREDA & Others	Respondents

In the matter of: **Petition filed by TPCODL on behalf of all the four DISCOMs of Odisha for (a) Approval of tariff for purchase of power from Solar Power Plants set up by Solar Power Generators (SPGs) under RESCO mode for implementation of Feeder Level Solarisation (FLS) under KUSUM-C (Component C2) and (b) Approval of the draft PPA.**

For Petitioners: Shri Bharat Bhadawat, Chief Regulatory, TPCODL on behalf of Petitioners-DISCOMs.

For Respondents: Shri Soumya Rangan Aich, Director (Technical), OREDA; Shri B. K. Das, Sr. GM(PP) & Ms. Saswati Mohapatra, AGM(El.), GRIDCO; and Ms. Sonali Pattnaik, Manager (Legal), DoE, GoO.

ORDER

Date of Hearing: 05.11.2024

Date of Order: 19.12.2024

1. This Petition has been filed by M/s. TPCODL on behalf of all the four DISCOMs (TPNODL, TPWODL, TPSODL & TPCODL) of Odisha praying for (a) Approval of tariff for purchase of power from Solar Power Plants set up by Solar Power Generators (SPGs) under RESCO mode for implementation of Feeder Level Solarization (FLS) under KUSUM-C (Component C2) and (b) Approval of the draft Power Purchase Agreement (PPA) between GRIDCO and SPGs for purchase of power.
2. The Petitioner- M/s. TPCODL on behalf of all the four DISCOMs has submitted as stated hereinafter:

- a) PM KUSUM Scheme was launched by the Government of India in 2019 to provide energy and water security to farmers and enhance their income, de-dieselize the farm sector, and reduce environmental pollution. The Scheme has three (3) Components:
- i. Component-A: Setting up of 10,000 MW of Decentralized Ground/ Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants by the farmers on their land;
 - ii. Component-B: Installation of 14 Lakh Stand-alone Solar Agriculture Pumps; and
 - iii. Component-C: Solarisation of 35 Lakh Grid Connected Agriculture Pumps including through feeder level solarisation.
- b) All the three components of the scheme aim to add Solar capacity of about 34,800 MW with total Central Financial Support of Rs. 34,422 Cr. The Ministry of New and Renewable Energy (MNRE), GoI, vide their order dated 17.01.2024, has issued the Comprehensive guidelines along with model Lease Agreement & Model PPA for implementation of PM-KUSUM Scheme. The KUSUM Component-C is further divided into 2 sub-components- C1 & C2. The Component C-1 aims at solarization of agricultural pumps whereas Component C-2 of KUSUM -C aims at solarization of the agriculture feeders.
- c) Feeder level solarization is different from the individual pump level solarization as this envisages setting up of large solar power plants to cater to the aggregate power demand of all pumps connected to agricultural feeder or mixed feeder in RESCO mode and purchase the generated power from the RESCO operation.
- d) For the scheme (Component C-2) to be successful, the tariff for power injected from the solar installation should be adequate for Solar Power Generators to set up the plants under the scheme. At the same time, the tariff should not bring additional burden on the consumers. For arriving at a competitive tariff for purchase of power from SPGs under the schemes, DISCOMs have taken the route of tariff discovery through competitive bidding process. TPCODL on behalf of all four DISCOMs had invited competitive bids from SPGs for discovery of levelized tariff for all four DISCOMs. The Scope of bid was selection of SPGs for setting up of Solar plants under RESCO mode on the basis of lowest levelized tariff for supply of solar power for 25 years which shall be guided by the PPA to be signed between GRIDCO and the SPGs.

- e) The lowest tariff discovered with Domestic Content Requirement (DCR) through competitive bidding was Rs 3.75/ kWh, if land is purchased /taken on lease by the Developer with mutually agreed lease rent and Rs 3.65/ kWh, if land is provided by Government on nominal lease rent. The lowest tariff discovered without DCR through competitive bidding was Rs 3.35/ kWh, if land is purchased /taken on lease by the Developer with mutually agreed lease rent and Rs 3.25/ kWh, if land is provided by Government on nominal lease rent.
 - f) As per the OM of MNRE dated 14.02.2024, the DCR exemption would be valid for all those Letter of Awards which have been issued on or before 31.03.2024. However, as the competitive bidding process by TPCODL for all DISCOMs was initiated in Dec 2023, tariff bidding was done for both DCR and without DCR basis.
 - g) The approved tariff for purchase of Solar Power in GRIDCO Tariff Order for FY 2024-25 is Rs. 3.6827 per unit. Further, the Average Power Purchase Cost (APPC) approved for all Four DISCOMs in GRIDCO Tariff Order FY 2024-25 is Rs. 3.28 per unit.
 - h) In view of the above, the Tariff for KUSUM C2 Feeder Level Solarization Scheme (FLS) be fixed at the lowest levelized tariff discovered through competitive bidding as mentioned at (e) above.
 - i) Moreover, in the meeting held on PM-Suryaghar Muft Bijli Yojana scheme and PM KUSUM Scheme under the Chairmanship of Principal Secretary to Govt. of Odisha, Department of Energy, it was resolved that the DISCOMs would file a petition before the Commission for approval of discovered tariff under KUSUM-A and Feeder level solarization scheme under the KUSUM-C.
 - j) Under this scheme, a PPA needs to be signed between M/s GRIDCO Ltd. and the SPGs for purchase of power. Since all the Power Purchase related affairs for Odisha DISCOMs are being looked after by M/s GRIDCO Ltd., therefore the PPA for purchase of power from SPGs should be executed between M/s GRIDCO Ltd. and the SPGs. Other methodology for implementation of the scheme will be as per MNRE guideline as released from time to time.
3. The Respondent- M/s. GRIDCO has submitted the following in the subject Petition:
- a) MNRE, GoI has launched PM KUSUM Scheme for installation of solar pumps, grid connected solar system and renewable power plants in the country to promote use of solar energy for agricultural use. The Scheme has three components namely Component A, B & C. Under Component A&C, DISCOMs have been designated as

Implementing Agencies. Component C has two sub components, i.e. (a) Individual pump solarization (IPS) and (b) Feeder Level Solarization (FLS). Under FLS, the separate agricultural feeders or feeders having major loads of agricultural connections will be solarized either through CAPEX/RESCO mode.

- b) The Commission, vide Order dated 19.01.2023 passed in Case Nos.41 of 2022 and 62 of 2022, has already determined the tariff of Rs.3.60/kWh as power purchase cost for Individual Pump Level Solarization. The tariff now discovered through competitive bidding by TPCODL is more or less near the average Solar Power Cost of Rs.3.68/kWh approved by the Commission for FY 2024-25 in ARR and the APPC of GRIDCO i.e. Rs.3.27/kWh for FY 2023-24.
- c) As per guidelines of MNRE, under RESCO mode, the developer will get CFA @30% of the estimated cost of installation of Solar Power Plant. The developers will be selected on the basis of lowest tariff offered for supply of required solar power for a period of 25 years after taking in account the MNRE, Govt. of India subsidy. The State Government has already allocated 10,000 green connected pumps under FLS.
- d) The MNRE guideline for implementation of KUSUM-C refers to incentivizing the farmers for consumption of power less than the benchmark consumption. The farmers will be paid by DISCOMs against the saved power at pre-determined tariff, which needs to be further clarified.
- e) The aim of the said Scheme is to reduce the power purchase cost and T&D loss while improving the quality, time-of-day and availability of power supply to increase farm productivity and income of the farmers.
- f) The Commission may consider for approval of the tariff discovered by TPCODL for purchase of power from Solar Plants set up by SPGs under RESCO mode of implementation of Feeder Level Solarization (FLS) under KUSUM-C.
- g) As the MNRE scheme is meant for Commercial agreement between the Developer(s)/Farmer(s) and the DISCOM, whereas GRIDCO is the designated Bulk Power Procurer in Odisha, a Tri-Partite Power Purchase Agreement (TPPA) is required to be entered between GRIDCO, DISCOM & the Developer/Farmer.
- h) After several rounds of discussion with the DISCOMs, the initial draft PPA along with the draft Land Lease Agreement (LLA) are modified and the draft TPPA along with draft LLA were submitted for approval for procurement of power up to aggregate capacity of 74.10 MW under the said Scheme. The TPPA will be executed

between the SPGs, GRIDCO and concerned DISCOM. The LLA will be executed between the SPG and the respective land owners.

- i) GRIDCO has prayed that the Commission may fix maximum permissible grid unavailability hours as per Clause 4.9 in the Tariff Orders of DISCOMs from time to time; consider to approve the draft TPPA along with the draft LLA with proposed modifications for the capacity of 74.10 MW under PM-KUSUM-C2 (FLS); and direct DISCOMs for having prior discussion with GRIDCO for finalization of the terms and conditions of Agreement, if any, in future before initiation of Tender for rest of the capacity under PM-KUSUM-C2, as GRIDCO will be procuring the power from the said solar projects.
4. The Respondent- SLDC has submitted the following aspects:
- a) For scheduling of green power injected by SPGs under RESCO mode for implementation of Feeder Level Solarization (FLS) under KUSUM (Component C-2) the concerned SPG/RESCO/any authorized agency on behalf of the SPGs shall communicate to SLDC the time block wise forecasted injection schedule and such injection forecasting and revisions thereof shall be accepted for preparation of injection schedule of concerned SPG by SLDC in accordance with the applicable Regulations/GRID Code Regulations of the OERC.
 - b) The Actual Energy meter data of the SPGs shall be communicated to SLDC by the concerned SPG/RESCO/any authorized agency on behalf of the SPGs/concerned DISCOM in accordance with the prevailing billing cycle as per the applicable Regulations/GRIDCO Code Regulations of the OERC.
 - c) The aforesaid actual metered energy injection data along with the consolidated final scheduled injection for a particular billing period shall be communicated by SLDC to GRIDCO for enabling preparation of BSP bill of DISCOMs by GRIDCO, Preparation of Under injection penalty bill of Renewable Energy based Power Plants (REPPs) by GRIDCO and for settlement of the energy charges of the Generator by GRIDCO as per the tariff approved by the OERC. As such the above practice is presently being followed for the generators connected with distribution system at a voltage level of 33 kV or below.
5. The Petitioner-M/s. TPCODL on behalf of all the four (4) DISCOMs (TPCODL, TPNODL, TPWODL, TPSODL) in its Rejoinder has submitted the following points:
- a) The TPPA submitted by the Respondent- GRIDCO is acceptable to the DISCOMs.
 - b) The salient points of this TPPA are as under:

- i. The Tripartite Agreement shall be executed between (a) The Solar Power Generators (SPG) (b) DISCOM - State Implementation Agency and (c) GRIDCO – As Power Procurer.
- ii. The SPGs will inject the Power into the DISCOM's network.
- iii. DISCOM shall collect the meter readings of both the main and check meters installed at the Delivery Point on the first day of every month for the previous month and shall submit it to SLDC for energy accounting. Accordingly, SLDC shall issue energy accounting statements every month. Any deemed generation shall also be certified by SLDC on monthly basis. The energy accounting statements issued by SLDC shall be considered for billing by SPG to GRIDCO.
- iv. Monthly payment to SPG shall be disbursed by GRIDCO basing upon bill submitted along with proof of lease rent paid to the farmers. This provision is in conformity with MNRE guideline.
- v. The SPG shall make payment of monthly rent directly in advance, by the 5th day of every month, by crediting the same to the lessor's (Individual Farmers or Group of Farmers or Cooperatives or Panchayats or FPO or WUA) bank account as per the Land Lease Agreement until achieving the COD and for the subsequent months after COD for the entire period of the TPPA Term or during the extension of TPPA Term if applicable.
- vi. The proof of rent payment up to COD and for the first month of the COD shall be submitted by the SPG to GRIDCO along with the first month energy bill after the COD. Thereafter, SPG shall make payment of monthly rent directly in advance, by the 5th day of every month, by crediting the same to the lessor's (Individual Farmers or Group of Farmers or Cooperatives or Panchayats or FPO or WUA) bank account as per the Land Lease Agreement after achieving the COD and the receipt of the same shall be submitted to GRIDCO along with the monthly energy bill.
- vii. Due date for payment is 30 days after a Monthly Bill (including all the relevant documents) or a Supplementary Bill is received by GRIDCO. In the event of delay in payment of a Monthly Bill by GRIDCO beyond 30 days of its Due Date, a Late Payment Surcharge shall be payable to the SPG at the rate of 1.25% per month on the outstanding amount calculated on a day-to-day

basis. The Late Payment Surcharge shall be claimed by the SPG through the Supplementary Bill.

- viii. A Rebate of two percent (2%) shall be payable to GRIDCO for the payments made within a period of seven working days. Any payment made after seven (7) working days but within the Due Date shall be allowed a rebate of one percent (1%).
 - ix. The generation in excess of energy equivalent to target CUF of 18.7% in a particular year shall be first adjusted towards generation compensation against offtake constraints and any remaining excess generation will be settled at 75% of applicable tariff. The excess generation by the SPG equal to this generation loss shall be procured by GRIDCO at the Tariff so as to offset this loss in the succeeding 3 (three) Contract Years.
 - x. In case of any eventuality of Backdown, except for the cases where the Backdown is on account of events like consideration of grid security or safety of any equipment or personnel or other such conditions, the SPG shall be eligible for a Minimum Generation Compensation, from GRIDCO subject to the submission of documentary evidences from the competent authority (DISCOM / SLDC).
 - xi. GRIDCO, in any Contract Year shall not be obliged to purchase any additional energy from the SPG beyond the stated limit. If for any Contract Year, except for the first Contract Year and last Contract Year of operation, it is found that the SPG has not been able to generate minimum energy equivalent to target CUF of 15%, on account of reasons solely attributable to the SPG, the non-compliance by SPG shall make the SPG liable to pay the compensation.
- c) TPCODL has floated tenders on behalf of all four (4) DISCOMs for solarization of agricultural feeders and 3 nos. of bidders have participated in the tendering process. TPCODL has also submitted the technical evaluation report of the bidding process.
- d) TPCODL on behalf of all four DISCOMs has prayed before the Commission to approve the Lowest Tariff discovered through competitive bidding for purchase of power from SPGs for projects to be set up under Component 2 of KUSUM - C Scheme under Feeder Level Solarization (FLS) and approve the TPPA and LLA as submitted by M/s GRIDCO Ltd.
6. No written submission has been filed by the Department of Energy, Government of Odisha in the present case. However, the representative of Department of Energy,

Government of Odisha participated in the hearing and submitted that they have intimated the DISCOMs to expedite the implementation of the Component-C-2 (FLS) of the PM-KUSUM Scheme in order to achieve the objectives within the specified timeline and to intimate the DoE, GoO about the un-utilized quantity, where tenders have not been finalized, for taking further course of action by the Government.

7. Heard the Parties through hybrid mode and considering the written submissions and arguments of the Petitioner and Respondents during hearing, the Commission observes the following:
 - a) The objective of PM-KUSUM Scheme is to promote use of solar energy for agricultural use. The Scheme would reduce the Power Purchase Cost, cross-subsidy burden and T&D loss and will be a source of income for the farmers.
 - b) The MNRE, GoI, vide order dated 17.01.2024, has issued comprehensive guidelines for implementation of PM-KUSUM Scheme along with model lease agreement & model PPA. As per detail guidelines of MNRE under RESCO mode, the developer will get CFA @30% of the estimated cost installation of solar power plant. The developer will be selected based on lowest tariff offered for a period of 25 years.
 - c) Under Component C2 of the KUSUM-C Scheme, the solar power plant may be installed at feeder level to cater to the requirement of power for a single feeder or for multiple agriculture feeders emanating from a distribution sub-station to feed power at 11 kV or at the higher voltage level side of the DSS. There is no cap on the capacity of solar power plant for feeder level solarisation.
 - d) DISCOM being the implementing agency, TPCODL on behalf of all four (4) DISCOMs (TPCODL, TPNODL, TPSODL, TPWODL) have carried out competitive bidding inviting bids from SPGs for discovery of levelized tariff for all four DISCOMs for setting up solar plants under Component-2 (Feeder Level Solarization) of KUSUM-C Scheme for solarization of Agricultural feeders and 3 nos. of bidders have participated in the bidding process. The petitioner has also submitted the technical evaluation report for the same.
 - e) The Govt. of Odisha has already allocated 10,000 Grid connected solar pumps under FLS (KUSUM-C2) for four (4) DISCOMs.
 - f) As per MNRE guideline, under FLS, the separate agricultural feeders or feeders having major loads of agricultural connection will be solarized either through CAPEX/RESCO mode. In the present petition, TPCODL-the petitioner, on behalf of four (4) DISCOMs have requested for RESCO model for implementation of FLS under KUSUM-C (Component-2).
 - g) The lowest tariff discovered through competitive bidding process is given in Table below:

Particulars	Levelized tariff for 25 years	
	With DCR	Without DCR
If land is purchased/taken on lease by the developer on mutually agreed lease rent	Rs.3.75/kWh	Rs.3.35/kWh
If land is provided by Govt. on nominal lease rent	Rs.3.65/kWh	Rs.3.25/kWh

DCR: Domestic Content Requirement.

The DCR exemption was valid for award of contract on or before 31.03.2024. As the validity period for exemption of the DCR is over, the levelized tariff as discovered by DISCOM through competitive bidding would be Rs.3.75/kWh (if land is purchased/taken over on lease by the developer on mutually agreed lease rent) or Rs.3.65/kWh (if land is provided by Govt. on nominal lease rent).

- h) The tariff discovered through competitive bidding by TPCODL is more or less similar to average solar power purchase cost of Rs.3.68/kWh as approved by the Commission for the FY 2024-25.
- i) GRIDCO has supported DISCOMs for implementation of FLS (under KUSUM-C) under RESCO mode.
- j) As per the scheme of MNRE, two agreements are to be executed and accordingly, GRIDCO has submitted a draft Tri-Partite Power Purchase Agreement (TPPA), which is required to be executed between GRIDCO, DISCOM & the Solar Power Generator (SPG) and a draft Land Lease Agreement (LLA), which is required to be signed between the SPG and the respective land owners for approval.
- k) The Petitioner M/s. TPCODL on behalf of all DISCOMs have agreed with the draft TPPA & the draft LLA submitted by GRIDCO.
- l) The salient points of the TPPA enumerated at Para 5(b) above include the energy accounting by SLDC, Late Payment Surcharge (LPS) as per TPPA, rebate on payment by due date, land lease in advance to farmers as per LLA, settlement of excess energy/generation, minimum generation compensation and tariff for excess generation, etc.
- m) TPCODL on behalf of four DISCOMs has prayed (a) to approve the above Levelized tariff discovered through competitive bidding process for purchase of power from SPGs for projects to be set up under KUSUM-C (Component-2) Scheme for Feeder Level Solarization (FLS) and (b) to approve the draft TPPA & draft LLA submitted by GRIDCO.

8. From the submissions made by the Petitioner-TPCODL on behalf of the four DISCOMs, the Commission further observes that due process of competitive bidding was followed while arriving at the levelized tariff. Moreover, the Parties have agreed to execute the draft TPPA and draft LLA submitted by GRIDCO. However, as per the MNRE's Guidelines (Para 6.4.6) of 17.01.2024 for implementation of PM-KUSUM Scheme, it is mandatory to use indigenously manufactured solar panels with indigenous solar cells. Further, the balance of system should also be manufactured indigenously. Therefore, it is pertinent to consider the Tariff with DCR derived through competitive bidding process. Accordingly, levelized tariff is Rs.3.75/kWh, if land is purchased /taken on lease by the Developer at mutually agreed lease rent or Rs.3.65/kWh, if land is provided by Government on nominal lease rent. Accordingly, the Parties are directed to follow the guidelines of MNRE regarding mandatory use of indigenously manufactured solar panels with indigenous solar cells and balance of system.
9. In view of above observations and considering the guidelines of MNRE in respect FLS under KUSUM-C (Component-2) & associated CFA available for the Scheme, the Commission approves the levelized tariff of Rs.3.75/kWh (if land is purchased/taken over on lease by the developer on mutually agreeable lease rent) or Rs.3.65/kWh (if land is provided by Government on nominal lease rent) as discovered by the DISCOM(s) through competitive bidding for implementation of said Scheme, which would reduce the overall Power Purchase Cost of GRIDCO in addition to reduction in cross-subsidy burden & T&D loss and would provide a source of income for farmer(s).
10. Further, the Commission approves the draft Tri-partite Power Purchase Agreement (TPPA) to be executed between the Solar Power Generator (SPG), GRIDCO and concerned DISCOM; and the draft Land Lease Agreement (LLA) to be executed between the SPG and the respective land owners. However, no LLA is required, if the farmer(s) develops solar plant on its own land.
11. The Petitioners are at liberty to approach the Commission in case of any difficulty in implementation of the Scheme. In terms of the above, the present Petition is disposed of.

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

Sd/-
(G. Mohapatra)
Officiating Chairperson