

KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM

Present: **Shri. Preman Dinaraj, Chairman**
Shri. S. Venugopal, Member
Shri. K. Vikraman Nair, Member

Petition No. OP 46/19

In the matter of : Petition for the approval of draft power sale agreement for 92MW floating solar project at Rajiv Gandhi Combined Cycle Power Project, Kayamkulam.

Petitioner : Kerala State Electricity Board Limited

Petitioner represented by : Sri.KGP Namboothiri, Executive Engineer
Smt Latha S.V, Asst: Executive Engineer

Respondent : National Thermal Power Corporation Limited

Respondent represented by : Sri. Manoj Mathur,CGM, NTPC
Sri. Mohit Bhargava, CGM, NTPC
Sri. Mammen J, GM NTPC
Sri. S.S. Mishra, GM, NTPC
Sri. M.K. Malviya, DGM Commercial, NTPC
Sri. Jayakumar L, DGM Commercial, NTPC

Order dated 24.07.2019

1. KSEB Ltd, on 03.06.2019, filed a petition for the approval of draft Power Purchase Agreement (PPA) for the purchase of 92MW power from floating solar power plant to be installed by NTPC at Rajiv Gandhi Combined Cycle Power Project (RGCCPP), Kayamkulam.
2. Summary of the petition filed by KSEB Ltd is given below,
 - (1) KSEB Ltd and NTPC has signed a Memorandum of Understanding (MoU) on 11.05.2018 to explore the possibility of setting up of Renewable energy power generation projects, subject to their feasibility.

- (2) Based on the Memorandum of Understanding, NTPC initiated the bidding process for the selection of Engineering, Procurement and Contracts for setting up 92MW floating solar power plant and reported that tariff worked out by NTPC based on discovered EPC cost and quoted CUF of 28% is Rs. 3.16/unit. The EPC contractor was selected based on competitive bidding followed by reverse auction.
- (3) NTPC and petitioner KSEB Ltd initialed a draft Power Purchase Agreement agreeing to the terms and conditions set therein for the procurement of 92MW power from floating solar plant.

Article 6 of the draft initialed PPA deals with Tariff, which is quoted below for ready reference of the Commission,

“The Tariff shall be computed by NTPC based on EPC cost discovered through competitive bidding followed by Reverse Auction. The tariff for the energy up to a maximum CUF of 28% supplied at the delivery point from any of the Module of “Kayamkulam Floating Solar PV Station” shall be payable by KSEBL at Rs. 3.16 per kWh. If during any contract year, it is found that the Developer has not been able to supply energy corresponding to minimum CUF of 16% on account of reasons solely attributable to the Developer, the Developer shall pay penalty equal to 25% of the project Tariff to KSEBL, for such shortfall in units. In case the availability is more than the maximum CUF of 28%, the Developer will be free to sell it to any other entity, provided, first right of refusal will vest with KSEBL. In case KSEBL purchases the excess generation, it will do so at 75 % (seventy-five percent) of the Tariff. The applicable tariff as above shall be subject to approval by the Kerala State Electricity Regulatory Commission (KSERC) and the Tariff so arrived will be the tariff inclusive of all taxes, levies and duties.”

3. The Commission admitted the petition as OP 46/2019. The Commission observed that though the petition is for the approval of draft power purchase agreement, the Commission has to approve the Tariff specified in the draft initialed PPA. Hence the Commission vide the letter dated 28.06.2019 has directed KSEB Ltd to submit the following details by return.
 - a) The procedures and process adopted for the selection of EPC contractor.
 - b) The basis for the quoted CUF of 28%
 - c) The Technical and financial norms and parameters adopted for the determination of Tariff in order to appraise the Tariff offered by NTPC at the rate of Rs.3.16/unit for the energy to be supplied from the proposed plant to KSEBL.

KSEB Ltd vide the letter dated 08.07.2019, submitted a brief write up of the procedure and process adopted for the selection of the EPC contractor, however the bid documents including the notice inviting tender, RFP/RFQ and also the bidding details including the number of bidders, EPC contract price, the criterion adopted for selection of the L1 bidder etc was not provided.

4. The Commission conducted hearing on the subject matter 09.07.2019 at the court hall of the Commission. Sri. K.G.P. Nampoothiri, Executive Engineer presented the petition on behalf of KSEB Ltd. Sri Manoj Mathur, Chief General Manager, presented the comments of NTPC and the clarifications sought by the Commission.
5. During the hearing KSEB Ltd submitted that, for meeting the RPO (Renewable Purchase Obligation) target fixed by the Commission, KSEB Ltd has been taking various initiatives and programs. KSEB Ltd had entered into MoU with NTPC for development of solar projects. NTPC after competing due procedures, selected EPC contractors for establishing 92 MW floating solar PV plans in two stages (first stage 22 MW and second stage 70 MW) at RGCCPP at Kayamkulam. The tariff offered for the electricity generated from the project is Rs 3.16/unit.
6. NTPC Ltd submitted that, as per the initiatives of the State Government, NTPC has signed the MOU with KSEB Ltd for developing the solar project at its RGCCPP project at Kayamkulam. The entire bidding process was done as per the approved procedures of NTPC. 10 bidders participated and 8 were technically qualified. E-tendering and reverse auction were carried out for the selection of the EPC contractor.

NTPC further clarified that the cost of the upgradation of transmission system required for evacuating power from the project is included in the EPC price. RGCCPP, Kayamkulam is already having grid connectivity at 220kV level.

NTPC Ltd further clarified that, in other States also, they had established solar PV projects through EPC basis and supplied power to the DISCOMS through MOU basis at the tariff approved by the respective SERCs.

Analysis and Decisions of the Commission

7. The Commission has examined the petition filed by the KSEB Ltd, as per the provisions of the Electricity Act, 2003, KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018, various judgments of the Hon'ble Supreme Court and Hon'ble Appellate Tribunal for Electricity and other prudent practices followed in the Country.

8. KSEB Ltd is the State Government owned incumbent distribution licensee in the State of Kerala. NTPC Ltd is the Central Government owned generating company in the Country.

9. Section 86 of the Electricity Act 2003 (Central Act 36 of 2003) prescribes the functions of the State Electricity Regulatory Commissions (SERCs). As per the Section 86 (1) (b) of the Electricity Act, 2003, regulating electricity purchase and procurement process of the distribution licensee including the price at which the electricity shall be procured from the generating companies through agreements is one of the functions of the SERCs. The relevant Section of the Electricity Act, 2003 is extracted below.

“86 (1) The State Commission shall discharge the following functions, namely:

.....

(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

.....”

10. Regulation 76 of the KSERC (Terms and Conditions for Determination of tariff) Regulations, 2018 mandates that, the distribution licensee has to get the approval of this Commission for the power purchase agreement to be entered in to with any generating companies’. The relevant Regulation is extracted below.

“76. Approval of power purchase agreement. – (1) Every agreement for procurement of power by the distribution business/licensee from the generating business/company or licensee or from other sources of supply entered into after the date of commencement of these Regulations shall come into effect only with the approval of the Commission:

.....

11. KSEB Ltd and NTPC Ltd had signed an MoU on 11.05.2018 to explore the possibility of setting up renewable energy projects, more specifically the land mounted and floating solar subject to their feasibility in the State of Kerala. The MoU was signed with the concurrence of the State Government. Based on the MoU, NTPC has initiated steps to establish 92 MW floating solar power plant at its Rajiv Gandhi Combined Cycle Plant at Kayamkulam. NTPC has selected the EPC contractor based on competitive bidding followed by reverse auction. Based on the discovered EPC price and the CUF of 28%, the parties KSEB Ltd and NTPC mutually agreed for a tariff of Rs 3.16/unit. In continuation, NTPC Ltd and KSEB Ltd initialled a draft power purchase agreement agreeing to the terms and conditions set therein for the procurement of 92 MW power from the floating solar plant. KSEB Ltd, as per the Section 86(1) (b) of the EA-2003 and also as per the

Regulation 76 of the KSERC (Terms and Conditions for Determination of Tariff) Regulations, 2018 had filed the present petition before this Commission for approval of the draft initialled PPA between KSEB Ltd and NTPC Ltd.

12. Article 6 of the draft initialled PPA deals with Tariff, which is extracted below for ready reference.

“The Tariff shall be computed by NTPC based on EPC cost discovered through competitive bidding followed by Reverse Auction. The tariff for the energy up to a maximum CUF of 28% supplied at the delivery point from any of the Module of “Kayamkulam Floating Solar PV Station” shall be payable by KSEBL at Rs. 3.16 per kWh. If during any contract year, it is found that the Developer has not been able to supply energy corresponding to minimum CUF of 16% on account of reasons solely attributable to the Developer, the Developer shall pay penalty equal to 25% of the project Tariff to KSEBL, for such shortfall in units. In case the availability is more than the maximum CUF of 28%, the Developer will be free to sell it to any other entity, provided, first right of refusal will vest with KSEBL. In case KSEBL purchases the excess generation, it will do so at 75 %(seventy-five percent) of the Tariff. The applicable tariff as above shall be subject to approval by the Kerala State Electricity Regulatory Commission (KSERC) and the Tariff so arrived will be the tariff inclusive of all taxes, levies and duties.”

As extracted above, the parties to the agreement mutually agreed for the tariff of Rs 3.16 per unit.

13. As already discussed under paragraph 9 above, as per the Section 86 (1)(b), the Commission is the authority to regulate the power procurement process including the price at which electricity shall be procured by distribution licensees from generating companies through agreements.

Section 62 of the Electricity Act, 2003 deals with determination of tariff, which is extracted below for ready reference.

“62. (1) The Appropriate Commission shall determine the tariff in accordance with provisions of this Act for –

(a) supply of electricity by a generating company to a distribution licensee:

Provided that the Appropriate Commission may, in case of shortage of supply of electricity, fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a generating company and a licensee or between licensees, for a period not exceeding one year to ensure reasonable prices of electricity;

- (b) transmission of electricity ;
- (c) wheeling of electricity;
- (d) retail sale of electricity.

Provided that in case of distribution of electricity in the same area by two or more distribution licensees, the Appropriate Commission may, for promoting competition among distribution licensees, fix only maximum ceiling of tariff for retail sale of electricity. “

Section 63 of the Electricity Act, 2003 deals with the determination of tariff by bidding process, which is extracted below.

“63. Notwithstanding anything contained in section 62, the Appropriate Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government.”

14. In the present case, the process of establishing the 92 MW floating solar plant is initiated as per the MOU signed between the NTPC Ltd and KSEB Ltd with the concurrence of the State Government. The NTPC has already selected the EPC contractor through bid process followed by reverse auction. A draft PPA also initialled by the petitioner and respondent agreeing for the terms and conditions stipulated therein. Hence, as per the provisions of the Electricity Act, 2003, the appropriate Commission has to determine the tariff of the electricity generated from the plant as per Section 62 of the Electricity Act, 2003 before granting approval for the PPA.
15. The basic issue herein is that, who is the appropriate Commission referred in Section 62 of the Electricity Act, 2003 for determining the tariff of the proposed 92 MW floating solar PV plant to be established by NTPC Ltd at RGCCPP at Kayamkulam. In this matter, the Commission noted the following.
 - (i) As per the Sub Section (4) of Section 2 of the Electricity Act, 2003, the ‘Appropriate Commission’ is defined as follows.

“(4) "Appropriate Commission" means the Central Regulatory Commission referred to in sub-section (1) of section 76 or the State Regulatory Commission referred to in section 82 or the Joint Commission referred to in section 83, as the case may be ;”
 - (ii) Section 79 of the Electricity Act, 2003, prescribe the functions of the Central Commission, which is extracted below for ready reference.

“79. (1) The Central Commission shall discharge the following functions, namely:- (a) to regulate the tariff of generating companies owned or controlled by the Central Government;

(b) to regulate the tariff of generating companies other than those owned or controlled by the Central Government specified in clause (a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State;

(c) to regulate the inter-State transmission of electricity ;

(d) to determine tariff for inter-State transmission of electricity;

(e) to issue licenses to persons to function as transmission licensee and electricity trader with respect to their inter-State operations.

(f) to adjudicate upon disputes involving generating companies or transmission licensee in regard to matters connected with clauses (a) to (d) above and to refer any dispute for arbitration;

(g) to levy fees for the purposes of this Act;

(h) to specify Grid Code having regard to Grid Standards;

(i) to specify and enforce the standards with respect to quality, continuity and reliability of service by licensees.

(j) to fix the trading margin in the inter-State trading of electricity, if considered, necessary;

(k) to discharge such other functions as may be assigned under this Act.”

As extracted above, as per the clause (a) to sub Section (1) of Section 79 of the Electricity Act, 2003, the authority for determining the tariff of electricity generated from a generating company owned or controlled by the Central Government is vested with the Central Commission.

16. NTPC Limited, formerly known as National Thermal Power Corporation Limited, is an Indian Public Sector Undertaking, engaged in the business of generation of electricity and allied activities. It is a company incorporated under the Companies Act 1956 and is promoted by the Government of India. Accordingly, as per the clause (a) to sub Section (1) of Section 79 of the Electricity Act, 2003, the authority for determination of tariff of the electricity generated from the proposed 92 MW floating solar plant at Kayamkulam, to be installed by NTPC Ltd is vested with the Central Commission. This position is also upheld by the Hon'ble APEX Court and Hon'ble APTEL through number of judgments. Hence the respondent NTPC Ltd has to file appropriate petition before the Central Electricity Regulatory Commission (CERC) for determination of the tariff of the electricity generated from the proposed 92 MW floating solar plant at Kayamkulam.
17. As per the Rule-8 of the Electricity Rules, 2005 notified by the Central Government on 8th June 2005, the tariff determined by the Central Commission under Section 79 of the Electricity Act 2003 shall not be re-determined by the State Commission. The Rule 8 of the Electricity Rules, 2005 is extracted below.

“8. Tariffs of generating companies under section 79.- The tariff determined by the Central Commission for generating companies under clause (a) or (b) of sub-section (1) of section 79 of the Act shall not be subject to re-determination by the State Commission in exercise of functions under clauses (a) or (b) of sub-section (1) of section 86 of the Act and subject to the above the State Commission may determine whether a Distribution Licensee in the State should enter into Power Purchase Agreement or procurement process with such generating companies based on the tariff determined by the Central Commission. “

18. The CERC vide the notification dated 17th April 2017 has notified the CERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2017 (herein after referred as Renewable Regulations 2017). The tariff of the electricity generated from the proposed 92MW floating solar plants of NTPC Ltd has to be determined as per the norms and parameters specified in the Renewable Energy Regulations, 2017.

The clause (c) of the Regulation 7 of the Renewable Regulations, 2017, specify that, the norms specified therein would be the ceiling norms while determining the project specific tariff.

Further, the Regulation 84 of the Renewable Regulations, 2017 permits the generating company and distribution licensee to agree for a tariff for the sale of electricity from a generating station subject to the condition that, the levelized tariff agreed shall not exceed the levelized tariff calculated on the basis of the norms specified in the Renewable Regulations, 2017. The relevant Regulation is extracted below.

“84. Deviation from norms

Tariff for sale of electricity generated from a generating station based on renewable energy sources, may also be agreed between a generating company and a licensee, in deviation from the norms specified in these regulations subject to the conditions that the levelised tariff over the useful life of the project on the basis of the norms in deviation does not exceed the levelised tariff calculated on the basis of the norms specified in these regulations.”

19. In the present case, the generator and distribution licensee has already agreed for a tariff of electricity generated from the project at Rs 3.16/unit. Considering the mutually agreed tariff as per the Regulation 84 of the Renewable Regulations, 2017, this Commission may approve the tariff for the electricity generated from the 92 MW floating solar plant at the lower of the ‘tariff to be determined by the CERC based on a petition filed by NTPC Ltd or Rs 3.16/unit’,
20. In the above background, the Commission has examined the petition filed by KSEB Ltd for the approval of the draft initialled PPA to be signed with NTPC Ltd. Duly considering the entire issues as discussed in the preceding paragraphs, the Commission has decided to grant provisional approval of the draft PPA, subject to the modifications under Article 6.1 of the draft PPA as below.

“6.1 The Tariff shall be computed by NTPC based on EPC cost discovered through competitive bidding followed by Reverse Auction. The tariff for the energy up to a maximum CUF of 28% supplied at the delivery point from any of the Module of “Kayamkulam Floating Solar PV Station” shall be payable by KSEBL ‘at the tariff determined by CERC based on the petition filed by NTPC Ltd as per Section 62 of the Electricity Act, 2003 or at Rs. 3.16 per kWh, whichever is lower’ . If during any contract year, it is found that the Developer has not been able to supply energy corresponding to minimum CUF of 16% on account of reasons solely attributable to the Developer, the Developer shall pay penalty equal to 25% of the project Tariff to KSEBL, for such shortfall in units. In case the availability is more than the maximum CUF of 28%, the Developer will be free to sell it to any other entity, provided, first right of refusal will vest with KSEBL. In case KSEBL purchases the excess generation, it will do so at 75 %(seventy-five percent) of the Tariff. The applicable tariff as above shall be subject to approval by the Kerala State Electricity Regulatory Commission (KSERC) and the Tariff so arrived will be the tariff inclusive of all taxes, levies and duties.”

Once the Central Commission determine the tariff based on the petition filed by NTPC Ltd, KSEB Ltd shall file a separate petition for the final approval of the PPA, as per Section 86 (1) (b) of the Electricity Act, 2003.

Order of the Commission

21. The Commission has examined the petition filed by KSEB Ltd for the approval of the power purchase agreement (PPA) to be signed with NTPC Ltd for purchasing the electricity generated from the 92 MW floating solar power plant to be developed at the RGCCPP at Kayamkulam as per the provisions of the Electricity Act, 2003, Electricity Rules 2005 notified by the Central Government, Renewable Energy Regulations, 2017 notified by the Central Commissions, and also as per the KSERC (Terms and Conditions for Determination of Tariff) Regulations,2018, and issue the following orders for compliance by the petitioner KSEB Ltd and the respondent NTPC Ltd.
 - (1) The tariff for the electricity generated from the 92 MW floating solar plant to be developed by NTPC Ltd at its RGCCPP at Kayamkulam shall be the lower of the ‘tariff to be determined by CERC based on a petition filed by NTPC Ltd as per the provisions of the Electricity Act 2003 or the mutually agreed tariff of Rs 3.16/unit between the petitioner and the respondent, whichever is lower.
 - (2) The respondent NTPC Ltd shall, immediately file a petition before the CERC for the determination of tariff for the electricity generated from the 92 MW floating solar plant at its RGCCPP at Kayamkulam as per the provisions of the Electricity Act, 2003 with all supporting details.

- (3) Provisionally approve the draft initialled PPA submitted before this Commission for approval with the modifications under Article 6.1 of the PPA as detailed under paragraph 20 above.
- (4) Immediately after CERC determines the tariff for the electricity generated from the 92 MW floating solar plant, the KSEB Ltd shall file a separate petition before this Commission for the final approval of the PPA to be signed with the respondent NTPC Ltd.

Petition disposed off.

Sd/-

**K. Vikraman Nair
Member**

Sd/-

**S. Venugopal
Member**

Sd/-

**Preman Dinaraj
Chairman**

Approved for issue

**G. Jyothichudan
Secretary**