

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case Nos. 141 of 2019

Case of Maharashtra State Power Generation Company Limited seeking approval for Deviation in Bidding Document for Long Term Procurement of Solar Power Under “Mukhyamantri Saur Krishi Vaahini Yojana”

Coram

Anand B. Kulkarni, Chairperson
I.M. Bohari, Member
Mukesh Khullar, Member

Maharashtra State Power Generation Company Limited :Petitioner

Appearance

For the Petitioner : Shri. S. B. Soni

ORDER

Date: 29 July, 2019

1. Maharashtra State Power Generation Company Limited (**MSPGCL**), has filed this Case dated 11 June, 2019 seeking approval for deviation from the Standard Bidding Guidelines of Ministry of Power (**MoP**) for long term procurement of Solar Power under “Mukhyamantri Saur Krishi Vahini Yojana” with 2 to 10 MW capacity projects connected to distribution network with total quantum of 184 MW.
2. **MSPGCL’s main prayers are as follows:**
 - a) *To accord approval for deviation in competitive bidding for capacity less than 5MW in standard bidding guidelines for purchase of 184 MW of Solar PV power under*

‘Mukhyamantri Saur Krishi Vaahini Yojana’;

- b) To accord approval to the proposed changes in clause for “Generation Compensation in off-take constraint due to transmission/Distribution network”;*
- c) To approve the proposed PBG clause as it is based on practical observations and is in favor of the scheme being implemented.*
- d) To accord approval for factoring reduction in land cost, so that MSPGCL can put the ceiling tariff of Rs.3.23 per unit;*

3. MSPGCL in its Case has stated as follows:

- 3.1. For implementation of the ‘Mukhyamantri Saur Krishi Vaahini Yojana’, MSPGCL had decided to develop 200 MW capacity projects under Phase-I of the scheme and had published four (4) tenders each for 50 MW Cumulative Capacity Solar Power Projects in various regions of Maharashtra.
- 3.2. On completion of the bid process and reverse bidding, MSPGCL awarded 150 MW capacity Letter of Award (LoA) to the successful bidder M/s. Sangam Advisors Limited for the three tenders in Vidarbha, Western Maharashtra and Northern Maharashtra and 50MW capacity to M/s. Puja Entertainment Pvt. Ltd. for Marathwada region. MSPGCL signed PPA with M/s. Waacox Energies Pvt. Ltd (SPV of M/s. Sangam Advisors Limited) on 21 February, 2018.
- 3.3. MSPGCL filed a Petition under Case No. 172 of 2017 in the month of November 2017 for approval of Modalities of ‘Mukhyamantri Saur Krishi Vaahini Yojana’, draft PPA and PSA documents. In the said petition, MSPGCL had submitted the tariff rates as Rs. 3.15/kWh discovered in the reverse bidding.
- 3.4. The Commission, in its order dated 16 October, 2018 in the Case No. 172 of 2017, did not approve the rate of Rs. 3.15/kWh for the 200 MW Phase-I projects and directed MSPGCL to reduce the same after taking into account the associated costs relating to land, evacuation of energy and metering arrangement.
- 3.5. Accordingly, MSPGCL negotiated with the bidders and arrived at tariff of Rs.3.05/kWh for injection at 33kV level and Rs.3.07/kWh for injection at 11kV level, as offered by M/s Waacox (SPV of M/s. Sangam).
- 3.6. Subsequently, MSEDCL had filed Petition before the Commission under Case No. 15 of 2019 seeking approval for adoption of Tariff discovered through competitive bidding

conducted by MSPGCL for Long Term Procurement of 200 MW Solar Power, under Section 63 of the Electricity Act, 2003.

- 3.7. The Commission in its Order dated 22 February, 2019 in Case No. 15 of 2019, stated that the Office of Commission sought clarification from MSEDCL vide its mail dated 12 and 18 February, 2019 however, no response was submitted by MSEDCL till the date of order and thus ruled that MSEDCL/MSPGCL should file a fresh petition by inviting fresh bids to arrive at a competitive rate as prevalent in the current market situation.
- 3.8. MSPGCL and MSEDCL had jointly filed a Petition on 16 March, 2019 under Case No. 76 of 2019 for review of the Order in Case No. 15 of 2019. In the said Petition, MSPGCL had also submitted clarifications regarding the current status of the various individual project's sites, development of 16 MW capacity at Gavhankund, Dist. Amaravati as pilot project for evacuation at 33 kV and computation of impact of land cost.
- 3.9. Vide Order dated 26 April, 2019 in Case No. 76 of 2019, the Commission accorded approval for implementing 16 MW project at Gavhankund, Dist. Amravati as Pilot project for evacuation at 33 kV level at the renegotiated Tariff of Rs. 3.05/kWh without incorporating the change in the Clause relating to the deemed generation, in Power Supply Agreement. For the balance capacity of 134 MW, the Commission ruled that MSPGCL may initiate fresh bidding process.
- 3.10. Accordingly, it is now proposed to invite tender for 184 MW Solar capacity under Phase-I for which there will be four region wise groups as follows:

Region	Capacity in MW
Western Maharashtra	50 MW
North Maharashtra	50 MW
Marathwada	50 MW
Vidarbha	34 MW

The individual project will have capacities varying from 2 MW to 10 MW depending on the land availability as well as local load requirements for Agricultural feeders.

- 3.11. MoP, vide its Notification dated 3 August, 2017 has issued guidelines under Section 63 of the Electricity Act , 2003 (EA) for Tariff based Competitive Bidding for long-term procurement of 5 MW and above from grid-connected Solar PV Power Projects. The guidelines are applicable for the individual Solar project having 5 MW and above capacity.
- 3.12. The Government of Maharashtra (GoM) vide G.R. dated 17 March, 2018 modified the earlier G.R dated 14 June, 2017 of "Mukhyamantri Saur Krishi Vaahini Yojana". The GoM

appointed MSPGCL as one of the implementation agencies for flexibility and speedy implementation of scheme for giving day time power to AG consumers.

- 3.13. MSPGCL is seeking approval for deviation in the SBD with respect to MoP guidelines dated 3 August, 2017 for the proposed 2 MW capacity instead of minimum bid capacity of 5 MW. These Solar Power Projects will be connected at 11/22 kV bus-bar level of distribution substation. Also, with such low capacity, it is expected that the participation in competitive bid will increase. MSPGCL requests the Commission to accord approval to the deviation in respect of the minimum capacity.
- 3.14. The SBD provides for compensation to generator for the loss of generation due to any off take constraint. The relevant Clause 5.5.1 (b) is reproduced below:

“5.5.1

b) Generation Compensation in off-take constraints due to Grid Unavailability:

During the operation of the plant, there can be some periods where the plant can generate power but due to temporary transmission unavailability the power is not evacuated, for reasons not attributable to the Solar Power Generator. In such cases the generation compensation shall be addressed by the Procurer in following manner:

<i>Duration of Grid unavailability</i>	<i>Provision for Generation Compensation</i>
<i>Grid unavailability in a contract year as defined in the PPA:(only period from 8am to 6 pm to be counted):</i>	<p><i>Generation Loss = [(Average Generation per hour during the contract year) × (number of hours of grid unavailability during the contract year)]</i></p> <p><i>Where,</i></p> <p><i>Average Generation per hour during the contract year (kWh) =</i></p> $\frac{\text{Total generation in the contract year (kWh)}}{\text{Total hours of generation in the contract year}}$ <p><i>The excess generation by the SPD equal to this generation loss shall be procured by the Procurer at the PPA tariff so as to offset this loss in the succeeding 3 (three) Contract Years.</i></p> <p><i>Contract Year shall be as defined in PPA.</i></p>

Provided that as an alternative to the mechanism provided above in Clause 5.5.1, the Procurer may choose to provide Generation Compensation, in terms of PPA tariff, for the Generation loss as defined in Clause 5.5.1, and for Grid unavailability beyond 50 hours in a Contract Year as defined in the PPA.

- 3.15. However, as the presently proposed projects are to be connected at 11kV/22kV bus-bar level of MSEDCL, there are issues regarding grid - availability at this voltage level and the loss of generation on account of such non-availability of grid. Accordingly, following clause is provided in RfP document and the draft PPA:

“Generation Compensation in off-take constraint due to transmission/Distribution network:

In any given year during the contract, if the availability of the distribution line/transmission line after inter-connection point for evacuation of power (during 8 am to 6 pm) falls below 98% i.e. the line unavailability is more than 2% i.e. 175.20 hours (2% x 365 days x 24 hours), and the power is not evacuated, for reasons not attributable to the Solar Power Generator, then the generation loss shall be compensated by MSPGCL at the 75% PPA tariff so as to offset this loss as given below:

<i>Duration of Grid unavailability</i>	<i>Provision for Generation Compensation</i>
<i>Grid unavailability in a contract year as defined in the PPA: (only period from 8 am to 6 pm to be counted):</i>	<i>Generation Loss = [(Average Generation per hour during the contract year) × (number of hours of grid unavailability beyond 175.20 hours i.e. 2% during the contract year)] Where, Average Generation per hour during the contract year (kWh) = Total generation in the contract year (kWh) ÷ Total hours of generation in the contract year</i>

- 3.16. Further, the bidding Guidelines suggest that the amount of Performance Bank Guarantee (PBG) should not be more than 4% of project cost. As there is no mandate available for project cost (This being a tariff based competitive bidding), the PBG indicated by MSPGCL in the RfP document is Rs. 20 lakh/MW based on the tenders published so far.
- 3.17. MSPGCL requests the Commission to approve the proposed PBG clause as it is based on practical observations and is in favor of the scheme being implemented.

3.18. In its Order dated 15 February, 2019 in Case No. 7 of 2019, the Commission has adopted the tariff of Rs 3.29/kWh for Solar PV projects for MSEDCL based on competitive bidding approach. However, there are two conditions for applicability of this tariff:

- a. This Tariff is applicable for projects where cost of land & evacuation infrastructure is included in Capital Cost of RE Project and not provided free of cost by the power purchaser.
- b. If no safeguard duty is paid by solar PV Project in spite of import from China & Malaysia, then Rs. 0.18/kWh will be deducted from Generic Tariff.

3.19. As the land for the proposed projects is being provided by MSPGCL with basic civil development work already done by MSPGCL, the impact of land cost & cost of civil development work is deducted for deciding the ceiling tariff of Rs. 3.237/kWh, in line with the clarity given by the Commission as per the Order dated 15 February, 2019 in Case No. 7 of 2019.

3.20. The detailed working of impact of land cost and cost of civil construction is as below

- a) Impact of Land, Land feasibility on Tariff:

Sr. No.	Region	Average Land cost per Acres in Rs.
1	Vidarbha	273773
2	Western Maharashtra	159342
3	North Maharashtra	231134
4	Marathwada	196999
	Average Land cost per Acres in Rs.	215212
	Land cost for 1MW (considering 5 Acres per MW)	1076060

- b) Considering Land cost as per Ready Reckoner, land development cost as per actual:

Sr. No.	Parameter	Total Cost	Impact in Rs./kWh
1	Project Size in MW	1	
2	Expected units generated per year	1660000 (19% CUF)	
A	Land Impact		
i	Cost of the land	1076060.00	

Sr. No.	Parameter	Total Cost	Impact in Rs./kWh
ii	Factorisation in terms of tariff for 25 years	1076060/(1660000x25)	0.025
B	Civil Construction		
i	Average Infrastructure Development per MW	12,00,000.00	
ii	Factorization in terms of tariff for 25 years	12,00,000/(1660000x25)	0.028
	Total Cost(Land Cost+ Civil Construction)	2276060	0.053

3.21. Thus, MSPGCL has decided to keep the ceiling tariff for this bidding process at Rs. 3.237 /kWh (i.e. Rs. 3.29 /kWh – Rs. 0.053 /kWh).

3.22. In case if the successful bidder fails to submit invoices for the safeguard duty component, then Rs. 0.18/kWh will be deducted from the tariff and the final tariff in such cases would be considered Rs. 3.237-0.18= Rs. 3.057/kWh.

3.23. MSPGCL is also submitting herewith the standard bidding documents (RfP) & draft Power Purchase Agreement (PPA) with deviations under the present case and requests the Commission to accord approval to the two documents

4. At the hearing held on 10 July, 2019, MSPGCL reiterated its submissions as made in the Petition.

Commission's Analysis and Rulings

5. The Commission notes that under the scheme "Mukhyamantri Saur Krishi Vahini Yojana", GoM vide modified G.R. dated 17 March, 2018 has appointed MSPGCL as one of the implementation agency for speedy implementation of the scheme for giving day time power to agricultural consumers.

6. In accordance with this GoM resolution, MSPGCL has decided to develop 200 MW capacity projects under Phase-I of the scheme and had published four (4) tenders each for 50 MW cumulative capacity Solar Power Projects in various regions of Maharashtra. MSPGCL had earlier approached the Commission for adoption of tariff discovered through bidding process for 150 MW. After various Orders relating this competitive bidding process, the Commission in its Order dated 26 April, 2019 has finally ruled as follows:

“2. The Commission accords approval for implementing the proposed 16 MW project at Gavankund, Dist. Amravati as Pilot project for evacuation at 33 kV level at the renegotiated Tariff of Rs. 3.05 per unit without incorporating the change in the Clause relating to the Deemed generation, in Power Supply Agreement.

3. For the balance capacity of 134 MW, Maharashtra State Power Generation Company Limited may initiate fresh bidding process.”

7. Thus, through above Order dated 26 April, 2019, out of 150 MW capacity, the Commission has adopted tariff for 16 MW Solar Project as a pilot project and has directed MSPGCL to conduct fresh bidding process for balance 134 MW. After adding balance 50 MW capacity which was never filed for adoption of tariff, such capacity for fresh bidding becomes 184 MW. Before, initiating such bidding process, through present Case, MSPGCL has sought approval for deviation from Bidding Guidelines notified by the MoP.
8. Clause no. 3.1.1 (b) & (c) of MoP Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected Solar PV Power Projects dated 3 August, 2017 states that procurer shall inform the initiation of bidding process to the Commission and shall seek approval of the Appropriate Commission for deviations, if any, in the draft RfS and draft PPA. Accordingly, MSPGCL has approached the Commission for seeking approval for deviations in the standard bidding documents (RfS) with respect to the MoP guidelines dated 3 August, 2017.
9. In the instant Petition, MSPGCL has sought following deviations from the MoP’s bidding guidelines:
 - a. Minimum bid capacity revised from 5 MW to 2 MW
 - b. Revision in Off-take Constraint Compensation due to grid unavailability to 75% of PPA tariff if grid availability is for less than 98%.
 - c. Performance Bank Guarantee amount as Rs. 20 Lakhs/MW instead of 4% of Project cost
10. As regards the Minimum bid capacity, MSPGCL has highlighted that with lower (from 5 MW to 2 MW) minimum bid capacity, participation in the bidding process will increase. The Commission notes that it has already approved similar deviation sought by Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) in its Order dated 12 June 2018 in Case No. 131 of 2018. The relevant para from that Order is reproduced below:

“10. The Commission notes the contention of MSEDCL for deviation of the condition that

the minimum project capacity shall be 2 MW instead of 5 MW at single location in order to encourage participation of more number of small bidders and to have locally distributed generation. This Solar power will be supplied to AG consumers in day time. As per the modality adopted for competitive bidding, for its further enhancement as envisaged under Section 63 of EA 2003, the nature and purpose of the process undertaken by MSEDCL for the benefit to the agricultural consumers and in large public interest, the Commission accepts the contentions of MSEDCL and accords its approval to the following deviation as sought by MSEDCL.

<i>Clause</i>	<i>Clause in Guidelines</i>	<i>Deviation in Clause</i>	<i>Remark</i>
<i>Minimum Capacity of Project/Applicability of guidelines</i>	<i>Solar PV Power Projects ('Projects'), having size of 5 MW and above</i>	<i>The minimum project capacity shall be 2 MW at single location</i>	<i>To participate more number of small bidders, the minimum project capacity is deviated 2 MW at single location, and to have local distributed generation under 'Mukhyamantri Saour Krishi Vahini Yojana''</i>

In view of already approved deviation as above, the Commission allows MSPGCL to have minimum project capacity of 2 MW at single location.

11. As regard revision in Off-take Constraint Compensation, the Commission notes that proposed projects will be connected at 11kV/22kV bus-bar level of MSEDCL which is subjected to various constraints relating to availability due to many factors including inadequate infrastructure at many places. MSPGCL has revised the RfP and draft PPA to include that in case the availability of those lines (during 8 am to 6 pm) falls below 98%, i.e. 175.20 hours/annually (2% x 365 days x 24 hours), and the power is not evacuated, for reasons not attributable to the Solar Power Generator, then the generation loss shall be compensated at the 75% of PPA tariff (i.e. Generation compensation shall be payable, in case the availability of lines falls below 175.20 Hours annually). Similar deviation has already been approved by the Commission for MSEDCL in its Order dated 15 February, 2019 in Case No. 7 of 2019. This is being already approved deviation, the Commission will have to allow MSPGCL to include such clause related to off-take constraint compensation in bid document.

12. As regard the deviation sought in Performance Bank Guarantee amount, the Clause 11.2 of the MoP's Guideline states that:

“11.2. Performance Bank Guarantee (PBG), to be fixed by the Procurer [but not to be more than 4% (four percent), in case of site specified by the Procurer, and 5% (five percent), in case of site selected by the Solar Power Generator, of the Project cost, as determined by CERC, if any, for the financial year in which the bids are invited or the estimated project cost] to be submitted at the time of signing of the PPA. In addition to the other remedies, this PBG can be encashed to recover any damages/dues of the Solar Power Generator in terms of the PPA. It is hereby clarified that the damages/dues recovered by the Intermediary Procurer by encashing the PBG, upon the default of the Solar Power Generator under the PPA, shall be passed on by the Intermediary Procurer to the End Procurer in terms of the PSA”

MSPGCL has submitted that as this being tariff based competitive bidding, project cost is not available. Hence, based on bids published so far, it has proposed PBG for Rs. 20 Lakhs/MW. The Commission notes that as PBG under the SBD is to be computed based on estimated project cost, which bidders must take from the generic Order of CERC for solar energy or have an estimate of its own. Thus, PBG value may change from bidder to bidder based on its own assumption of project cost. However, as MSPGCL has proposed that Rs. 20 Lakh/MW as PBG based on recent bids documents published so far, there would be consistency across bidders without having to normalize varying project costs of the bidders. For this reason, Commission allows the deviation as proposed by MSPGCL.

13. MSPGCL has also sought approval for Ceiling tariff which they have worked out by adjusting impact of land & civil construction cost and also by reduction of Rs. 0.18/kWh, in case bidder is not able to provide documentary evidence of payment of safeguard duty. In this regard, the Commission notes that in its various Orders, it has been categorically stated that the ceiling rate shall be fixed by the procurer at its own due diligence and the Commission will see the competitiveness of final discovered tariff only at the time of tariff adoption. Hence, the Commission is not inclined to go into the details of the ceiling tariff proposed by MSPGCL. At the same time, for avoiding any future complications in bidding process, the Commission would like to clarify that its decision of reducing Rs. 0.18/kWh from discovered tariff was based on the facts as were applicable to that matter. In the present case, MSPGCL would be conducting fresh bidding process, wherein prospective bidders would be quoting tariff after considering all applicable taxes, duties, law etc on cut off date. Hence, such condition of reducing Rs. 0.18/kWh for non-submission of proof of actual payment of safe-guard duty may not be relevant in this fresh bidding process.

14. Hence the following Order:


ORDER

- 1) The Case No. 141 of 2019 is allowed.
- 2) The Commission allows following deviation sought by Maharashtra State Power Generation Co. Ltd. from Competitive Bidding Guideline for procurement of 184 MW of Solar Power under Mukhyamantri Saur Krishi Vahini Yojana:
 - a. Reduction in minimum bid capacity from 5 MW to 2 MW
 - b. Allowing Off-take Constraint Compensation as dealt in para 11 above.
 - c. Performance Bank Guarantee to be considered for Rs. Twenty Lakh per MW.
- 3) Maharashtra State Power Generation Co. Ltd. shall fix the ceiling rate as per its own due diligence and the prevailing market conditions.

Sd/-
(Mukesh Khullar)
Member

Sd/-
(I.M. Bohari)
Member

Sd/-
(Anand B. Kulkarni)
Chairperson


(Abhijit Deshpande)
Secretary

