

**BEFORE THE HARYANA ELECTRICITY REGULATORY COMMISSION  
BAYS No. 33-36, SECTOR-4, PANCHKULA- 134112, HARYANA**

**Case No. HERC/PRO – 53 of 2017**

DATE OF HEARING : 25.10.2018  
DATE OF ORDER : 05.11.2018

**IN THE MATTER OF:**

**Petition to seek approval to purchase 300 MW Solar Power through competitive bidding and Terms & Conditions of Request for Proposal (RfP) and draft PPA.**

**Petitioner**

Haryana Power Purchase Centre, Panchkula (HPPC)

**Present On behalf of the Petitioner**

1. Shri Gaurav Gupta, Xen, HPPC
2. Smt. Seema Sidana, AE, HPPC

**QUORUM**

**Shri Jagjeet Singh, Chairman**

**ORDER**

1. The petition was filed by HPPC vide memo no. Ch-9/CE/HPPC/SE/C&R-I/LTP-I/HERC/111 dated 14.07.2017, seeking approval to purchase 300 MW Solar Power through competitive bidding and Terms & Conditions of Request for Proposal (RfP) and draft PPA.
2. The case was first heard on 21.07.2017, wherein HPPC submitted that the procurement of Solar power through competitive bidding has been proposed, to meet backlog of RPO obligations. Accordingly, the draft RfP and Draft PPA has been prepared taking into consideration of the Haryana Solar Policy, 2016, HERC Regulations and draft guidelines dated 28.02.2017 prepared by MNRE for Tariff based competitive bidding process for procurement of power from Grid – Connected Solar PV Power Projects. On hearing the matter, the Commission observed that the draft RfP prepared by HPPC contains clause(s) regarding seeking clarifications from bidders and requirement of certification from RE Nodal agency of the State of the

bidder which may be deleted. The Commission further directed HPPC to clearly define Force Majeure events, identification/evidence of land. The Commission directed HPPC to submit revised RfP with suggested changes within 10 days from the date of this Order.

3. HPPC, vide its letter no. Ch-16/CE/HPPC/SE/C&R-I/LTP-I/HERC/111 dated 29.09.2017, submitted that MoP, GoI has issued Guidelines dated 3.8.2017, for Tariff based Competitive bidding process for procurement of power from Grid Connected Solar PV Power Projects and requested to grant further 6 weeks time for submission of revised NIT as per guidelines notified by MoP.
4. HPPC, vide its memo no. Ch-26/CE/HPPC/SE/C&R-I/LTP-I/HERC/111 dated 04.04.2018 submitted revised RfP along with draft PPA prepared in line with Guidelines for Tariff Based Competitive Bidding process for procurement of power from Grid Connected Solar PV Power projects issued on 3.8.2017 by MoP with Rs. 3.00/kwh as fixed tariff for the PPA period of 25 years. Deviations in the proposed RfP vis-à-vis MoP guidelines dated 03.08.2017, were also enlisted by HPPC as under:-

<b>DEVIATIONS IN PROPOSED RfP w.r.t MoP GUIDELINES</b>		
<b>As per Proposed RfP by HPPC</b>	<b>As per GoI MoP Guidelines issued vide Resolution No. 23/27/2017-R&amp;R.—1. PREAMBLE dated 3.8.2017</b>	<b>HPPC Remarks</b>
<p><b>2.5 Payment Security Mechanism Letter of Credit (LC):</b> As a back up arrangement, for procurer obligation in respect of monthly energy bills including supplementary bills under this agreement, the buyer shall open and maintain an irrevocable monthly revolving LC in favour of the SPD issued by any Nationalized Bank. The LC shall be opened by HPPC only when HPPC is in a position to provide the LC. The LC shall be provided to the SPD on the following terms:-a) All costs relating to opening, maintenance of Letter of Credit shall be borne by procurer. The LC shall have a term of 12 months and shall be renewed annually, for an amount equal to:</p> <p style="margin-left: 40px;">i) For the first Contract Year, equal to the estimated average monthly billing. ii) For each subsequent Contract Year, equal to the average of the monthly billing of the previous Contract Year.</p>	<p><b>5.3. Payment Security:</b> The Procurer shall provide adequate payment security measures, as specified below. <b>5.3.1. Scenario 1: Direct Procurement by Procurer from Solar Power Generator:</b> The Procurer shall provide payment security to the Solar Power Generator through: <b>a) Revolving Letter of Credit (LC)</b> of an amount not less than 1 (one) months' average billing from the Project under consideration; <b>AND,</b> <b>b) Payment Security Fund</b>, which shall be suitable to support payment for at least 3 (three) months' billing of all the Projects tied up with such fund; <b>c)</b> In addition to a) &amp; b) above, the Procurer may also choose to provide <b>State Government Guarantee</b>, in a legally enforceable form, ensuring that there is adequate security to the Solar Power Generator, both in terms of payment of energy charges and termination compensation if any.</p>	Commission may allow this deviation due to financial constraint of DISCOMs.
<p><b>2.15 Financial Closure</b> 2.15.1. The Project shall achieve Financial Closure within Two Hundred and Ten days</p>	<p><b>3.2.1. Project site specified by the Procurer:</b> The Procurer may choose to</p>	To facilitate bidders, Land acquisition , grid

<p>(210) days from the date of signing of PPA. In this regard, the project developer shall submit a certificate from all financial agencies, certifying that the party has complied with all conditions required for drawl of funds and party can draw down the funds on any date as per their requirement. The bidder shall furnish documentary evidence for infusion of actual equity requirement.</p> <p>2.15.2. At this stage, the Project developer shall be required to furnish the following documentary evidences :-</p> <ol style="list-style-type: none"> <li>i. The project developer will submit the final technology selection viz. Crystalline/ Thin Film/ Concentrator PV/specific any other technology etc.</li> <li>ii. Order copy / agreement copy with Technology Provider / supplier for supply of modules, equipments for said technology.</li> <li>iii. A certificate from the project / client situated anywhere in world that the technology supplied by the Manufacturer / Technology Provider is in successful operation for atleast one project and atleast one year before the last date of submission of bid.</li> </ol> <p>2.15.3 Bidder shall obtain all consent, clearance &amp; permits required for setting up of Generation facility and supply of power to procurer.</p> <p>2.15.4 A letter from State Transmission Utility (STU)/ Central Transmission Utility (CTU) confirming technical feasibility of connectivity of the plant to STU/ CTU substation.</p>	<p>locate the Project at a specified site and the same may be specified by the Procurer in the bidding documents. In such cases, to ensure timely commencement of supply of electricity, the Procurer shall ensure that various Project preparatory activities as indicated below have been initiated by the Procurer before issuance of the RfS. These activities would be required to be completed prior to the PPA being executed.</p> <ol style="list-style-type: none"> <li>a) Land: Identification of 100% (hundred per cent) land and provision of documents/ agreements to indicate in-principle availability of at least 25% (twenty-five per cent) of land at the initiation of bidding, and possession of 90% (ninety per cent) of land within 1 (one) months of the execution of the PPA and the balance 10% (ten per cent), within 2 (two) months thereafter.</li> <li>b) No Objection Certificate (NOC)/ Environmental Clearance (if applicable) for the Project.</li> <li>c) Forest Clearance (if applicable) for the land for the Project.</li> <li>d) Approval for Water from the concerned authority (if applicable) required for the Project.</li> <li>e) A letter from the STU/ CTU confirming technical feasibility of connectivity of plant to STU/ CTU substation, except for the cases where the concerned STU / CTU has notified, sub-station wise spare capacities for feasibility of connectivity.</li> </ol>	<p>connectivity, consent &amp; clearance have been proposed at the time of Financial closure instead of at the time of signing of PPA in line with prevalent practice in other States.</p>		
	<p><b>5.5. Generation Compensation for Off take Constraints:</b> The Procurer may be constrained not to schedule power on account of unavailability of the Transmission Infrastructure / Grid or in the eventuality of a Backdown.</p> <p><b>5.5.1. Off take constraints due to Transmission Infrastructure / Grid Unavailability:</b></p> <p><b>a) Generation Compensation in off take constraint due to Transmission Infrastructure not complete/ ready (Transmission constraint):</b> After the scheduled commissioning date, if the plant is ready but the necessary power evacuation/ transmission infrastructure is not ready, for reasons not attributable to the Solar Power Generator, leading to off take constraint, the provision for generation compensation is as follows:</p> <table border="1"> <tr> <td><b>Transmission Constraint</b></td> <td><b>Provision for Generation Compensation</b></td> </tr> </table>	<b>Transmission Constraint</b>	<b>Provision for Generation Compensation</b>	<p>Generation compensation clauses have not been incorporated in the proposed RfP as there is no such provision in the HERC Regulations. Hence, this deviation may be allowed by the Commission.</p>
<b>Transmission Constraint</b>	<b>Provision for Generation Compensation</b>			

	<p>If the plant is ready but the necessary power evacuation/transmission infrastructure is not ready, leading to offtake constraint</p>	<p>a) The normative CUF of 19% (nineteen per cent) or committed CUF, whichever is lower, and in cases where the contract is in energy terms, proportionate value of CEQ, for the period of grid unavailability, shall be taken for the purpose of calculation of generation loss. Corresponding to this generation loss, the excess generation by the SPD in the succeeding 3 (three) Contract Years, shall be procured by the Procurer at the PPA tariff so as to offset this loss.</p> <p>b) If the transmission delay is directly attributable to the organization building the transmission network and some penalty is imposed on him, then a part of that penalty may be utilized for compensating the generation loss.</p> <p>The mechanism for compensating the developers will be spelt out in the tender documents. <i>Contract Year, shall be as defined in PPA.</i></p>					
	<p>However, it is clarified that if the plant is ready before SCD, but the off take is constrained because of inadequate/incomplete power evacuation infrastructure, no compensation shall be permissible.</p>	<p><b>b) Generation Compensation in off take constraints due to Grid Unavailability:</b> 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:</p> <table border="1"> <thead> <tr> <th>Duration of Grid unavailability</th> <th>Provision for Generation Compensation</th> </tr> </thead> <tbody> <tr> <td>Grid unavailability in a contract year as defined in the PPA: (only period from 8 am to 6 pm to</td> <td> <p><b>Generation Loss = [(Average Generation per hour during the contract year) × (number of hours of grid unavailability during the contract year)]</b> Where, Average Generation per hour during the contract year</p> </td> </tr> </tbody> </table>	Duration of Grid unavailability	Provision for Generation Compensation	Grid unavailability in a contract year as defined in the PPA: (only period from 8 am to 6 pm to	<p><b>Generation Loss = [(Average Generation per hour during the contract year) × (number of hours of grid unavailability during the contract year)]</b> Where, Average Generation per hour during the contract year</p>	<p>Generation compensation clauses have not been incorporated in the proposed RfP as there is no such provision in the HERC Regulations. Hence, this deviation may be allowed by the Commission.</p>
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	be counted):	$(kWh) = \frac{\text{Total generation in the contract year (kWh)}}{\text{Total hours of generation in the contract year}}$ <p>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>Contract Year, shall be as defined in PPA.</i></p>					
	<p><b>5.5.2. Off take constraints due to Back down:</b> The Solar Power Generator and the Procurer shall follow the forecasting and scheduling process as per the regulations in this regard by the Appropriate Commission. The Government of India, as per Clause 5.2(u) of the Indian Electricity Grid Code (IEGC), encourages a status of “must-run” to solar power projects. Accordingly, no solar power plant, duly commissioned, should be directed to back down by a Discom/ Load Dispatch Centre (<b>LDC</b>). In case such eventuality of Back down arises, 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 Solar Power Generator shall be eligible for a Minimum Generation Compensation, from the Procurer, in the manner detailed below.</p> <table border="1"> <thead> <tr> <th>Duration of Back down</th> <th>Provision for Generation Compensation</th> </tr> </thead> <tbody> <tr> <td>Hours of Backdown during a monthly billing cycle.</td> <td> <p><b>Minimum Generation Compensation = 50% of [(Average Generation per hour during the month) × (number of backdown hours during the month) × PPA Tariff]</b></p> <p>Where, Average Generation per hour during the month (kWh) =</p> <math display="block">\frac{\text{Total generation in the month (kWh)}}{\text{Total hours of generation in the month}}</math> </td> </tr> </tbody> </table> <p>The Generation Compensation is to be paid as part of the energy bill for the successive month after receipt of Regional Energy Accounts (REA). No Trading Margin shall be applicable on this Generation Compensation. Possible conditions for exclusion of Generation Compensation, on account of Backdown purposes,</p>		Duration of Back down	Provision for Generation Compensation	Hours of Backdown during a monthly billing cycle.	<p><b>Minimum Generation Compensation = 50% of [(Average Generation per hour during the month) × (number of backdown hours during the month) × PPA Tariff]</b></p> <p>Where, Average Generation per hour during the month (kWh) =</p> $\frac{\text{Total generation in the month (kWh)}}{\text{Total hours of generation in the month}}$	<p>Generation compensation clauses have not been incorporated in the proposed RfP as there is no such provision in the HERC Regulations. Hence, this deviation may be allowed by the Commission.</p>
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Hours of Backdown during a monthly billing cycle.	<p><b>Minimum Generation Compensation = 50% of [(Average Generation per hour during the month) × (number of backdown hours during the month) × PPA Tariff]</b></p> <p>Where, Average Generation per hour during the month (kWh) =</p> $\frac{\text{Total generation in the month (kWh)}}{\text{Total hours of generation in the month}}$						

	shall be clearly specified in the RfS and the PPA.	
<p><b>3.1.3. Step III</b></p> <p>After opening of the financial bid in each category, reverse e-auction will be done separately and simultaneously in each category with the bidders whose tariff falls within 20 % of the tariff quoted by L-1 bidder in that category.</p> <p><b>Step-III- Stage-2</b></p> <p>In case the capacity offered by discovered L-1 bidder is not sufficient to meet the required capacity of NIT in each category, then all those bidders who have participated in the above e-auction process will be asked to offer their capacity at the L-1 discovered tariff</p> <p><b>Step-III- Stage-3</b></p> <p>If still the required capacity is not fulfilled, then the lowest price discovered will be offered to all those bidders whose quoted tariff falls between 20% to 30% of the tariff quoted by L-1 bidder in the first instance i.e. before negotiations</p> <p><b>Step-III- Stage-4</b></p> <p>HPPC will display the unfulfilled capacity to all the bidders whose quoted tariff is above 30 % of the tariff quoted by the L-1 bidder in the first instance i.e. before negotiation for the remaining capacity to be filled</p> <p><b>Note:</b></p> <p>(A) If the sum of quantum of power offered under each category exceeds the power requirement of 240 MW (Category I) or 60 MW ( Category II) , then selection will be done on the following criteria:</p> <ol style="list-style-type: none"> <li>I. Solar power Projects in the State of Haryana will be given first priority.</li> <li>II. Thereafter, the bidder offering the maximum capacity will be given second priority.</li> <li>III. In case bidders have fulfilled both the above conditions then the bidder will be selected, who will respond first by accepting the tariff.</li> <li>IV. In case bidder have fulfilled above three conditions then the bidder will be selected whose net worth is higher than the other.</li> </ol> <p>i)</p>	<p><b>6. BIDDING PROCESS</b></p> <p><b>6.1.</b> The Procurer shall call for the bids adopting a single stage bidding process to be conducted through Electronic mode (e-bidding). The Procurers may adopt e-reverse auction if it so desires.</p> <p>E-procurement platforms with a successful track record and with adequate safety, security and confidentiality features will be used</p>	<p>The Commission may approve the process of selection of bidders as mentioned in the RfP.</p>
	<p><b>18. DEVIATION FROM PROCESS DEFINED IN THE GUIDELINES</b></p> <p>In case there is any deviation from these Guidelines and/or the SBDs, the same shall be subject to approval by the Appropriate Commission. The Appropriate Commission shall approve or require modification to the bid documents within a reasonable time not exceeding 90 (ninety) days</p>	<p>The Commission may approve the deviations.</p>

5. The Commission sought certain additional information from HPPC vide memo no. 407/HERC/Tariff dated 17.05.2018. HPPC replied for the same vide memo no. Ch-32/CE/HPPC/SE/C&R-I/LTP-I/HERC/111 dated 07.06.2018. The same is reproduced as under:-

Sr. No.	NIT Clause	MoP guidelines	HERC Observation	HPPC Reply
1.	<p><b>2.3. Capacity of each Project</b>  <b>The procurement will be done in two categories.</b>  <b>Category –I :</b>  Minimum :3 MW,  Maximum: 240 MW  (the maximum capacity assigned to any bidder limiting to 240 MW.)</p> <p><b>Category –II:</b>  Minimum : 1 MW, .  Maximum: 2 MW  (Total capacity will be procured in this category is 60 MW)  The Solar plant will be set up in the State of Haryana in this category.</p>	<p><b>2.1.1.</b> These Guidelines are being issued under the provisions of Section 63 of the Electricity Act, 2003 for long term procurement of electricity by the 'Procurers', from grid-connected Solar PV Power Projects ('Projects'), having size of <b>5 MW and above</b>, through competitive bidding.</p>	<p>As per Clause 2.1.1 of the guidelines dated 3.8.2017, it is applicable only for solar power projects having size of 5 MW and above</p>	<p>Haryana Solar Policy 2016 envisages purchase of solar power from small developers of 1 or 2 MW capacity.</p> <p>Hence, RfP contains Category II of 1 or 2 MW capacity in addition to category I.</p>
2.	<p><b>2.8.2.1. Site Identification and Land Acquisition:</b></p> <p>At the time of bid submission, identification of 100% land shall be intimated. In this regard the Project developer shall be required to furnish the following documentary evidences:-  Ownership or lease hold rights (<b>for at least 30 years</b>) in the name of the Project Developer and possession of 100% of the area of land required for the allotted project.....  <b>Note:</b></p> <p><b>(i) Change in the location of land from one place to other location is permitted till the Financial closure.</b></p>	<p><b>1.1 PPA period</b>  The PPA period should thus be not less than 25 (twenty-five) years from the date of the Scheduled Commissioning Date (SCD). The Solar Power Generators are free to operate their plants after the expiry of the PPA period in case the arrangements with the land and infrastructure owning agencies, the relevant transmission utilities and system operators so provide</p>	<p>The proposed procurement of power is for 25 years whereas the land rights have been sought for 30 years. Further, the guidelines dated 3.8.2017 does not mention anything regarding change of location of land.</p>	<p><b>1.</b> Land rights for 30 years have been sought considering the following:  i) PPA Term is 25 years.  ii) Bid processing time is 6 months and commissioning time is 13 months.  iii) PPA can be extended beyond 25 years.</p> <p><b>2.</b> Change in location till Financial Closure has been allowed, as at the time of bid submission, the developer has only identified the land but may not be able to possess it later for any reason, hence, he has been facilitated to possess the land at any other location before Financial closure.</p>

3.	<p><b>2.3. Capacity of each Project</b>  <b>The procurement will be done in two categories.</b>  <b>Category –I :</b>  Minimum :3 MW,  Maximum: 240 MW  (the maximum capacity assigned to any bidder limiting to 240 MW.)</p> <p><b>Category –II:</b>  Minimum : 1 MW, .  Maximum: 2 MW  (Total capacity will be procured in this category is 60 MW)  The Solar plant will be set up in the State of Haryana in this category.</p>	<p><b>4.1. Bid Package:</b> The bids will be designed in terms of a package. The minimum size of a package should be 50 MW, in order to have economies of scale. Notwithstanding this, on due consideration of availability of land and transmission facility, smaller bid packages can be kept in case of North-Eastern States, Special Category States, and Projects outside Solar Parks. The bidder has to quote for an entire package.</p> <p><b>2.1.1.</b> These Guidelines are being issued under the provisions of Section 63 of the Electricity Act, 2003 for long term procurement of electricity by the 'Procurers', from grid-connected Solar PV Power Projects ('<b>Projects</b>'), having size of <b>5 MW and above</b>, through competitive bidding.</p>	<p><b>Clause No. 4.1 of the guidelines regarding Bid package has not been incorporated in the proposed RfP.</b></p>	<ol style="list-style-type: none"> <li>1. The Term "package" is used in MoP guidelines in response to solar park.</li> <li>2. The minimum size of package i.e. 50 MW as per MoP guidelines has not been incorporated as 50 MW project requires about 250 acres, Haryana being agriculture State, possibility of availability of this much chunk of land at a single place is quite less.</li> <li>3. MoP guidelines are for 5 MW and above.</li> <li>4. Haryana Solar Policy 2016 envisages purchase of solar power from small developers of 1 or 2 MW capacity.</li> </ol>
4.		<p><b>14.1. Part Commissioning:</b>  Part commissioning of the Project shall be accepted by Procurer subject to the condition that the Minimum Capacity for acceptance of first and subsequent part(s) commissioning shall be 50 MW, without prejudice to the imposition of penalty, in terms of the PPA on the part which is not commissioned. SCD.</p>	<p>Part Commissioning Clause as per 14.1 of the guidelines has not been incorporated in the proposed RfP.</p>	<p>HPPC intends to procure power from small capacity solar plants; therefore, Part Commissioning Clause is not required.</p>
5.			<p>There is no reference in the RfP of annexure II enclosed regarding Technical requirements for Grid connected solar PV plants. Although the same forms part of draft PPA under Article no. 18.</p>	<p>This is typographical error wherein Annexure A-I has been written as Annexure –II. The same will be corrected.</p>

6. The hearing in the case was held on 25.10.2018, wherein the Petitioner i.e. HPPC mainly reiterated its earlier submission, which for the sake of brevity has not been reproduced here.

7. On hearing the matter, the Commission observed that HPPC has kept separate category of 1MW to 2 MW capacity in order to comply with the provisions of



Haryana Solar Policy, 2016. It has also become relevant in view of the fact that the Commission has not determined feed-in tariff (FiT) as envisaged for the Solar Power projects with capacity upto 5 MW. The Commission has also observed that clause no. 2.7.1 of the Request for Proposal (RfP) provides that the entire cost of transmission including cost of construction of line, Bay, metering and protection system etc. along with Transmission charges & losses etc. up to Haryana (STU/DISCOMs substation) will be borne by the Project Developer. Although, the same is not in conformity with clause no. 59 of the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2017 which provides that the State transmission utility or the Transmission/Distribution Licensee shall bear the cost of Extra High Voltage (EHV)/ High Voltage (HV) transmission line up to a distance of 10 km. from the inter-connection point. In case the distance between the inter connection point and point of grid connectivity is more than 10 KMs then the cost of transmission line for the distance beyond the 10 KMs shall be borne equally between the Independent Power Producer and the licensee. In the RfP proposed by HPPC, delivery point/ interconnection point/metering point is Haryana STU/DISCOM substation. The Commission observes that the power is intended to be procured by HPPC through competitive bidding and can impose the conditions beneficial to it by getting the deviation from the ibid Regulations approved. Accordingly, the Commission considers it appropriate to approve these deviations under clause no. 63 of the ibid Regulations.

8. In view of the above, the Commission approves the procurement of 300 MW Solar Power through competitive bidding, as per terms & conditions of Request for Proposal (RfP) and draft PPA submitted by the Petitioner.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 05.11.2018.

Date: 05.11.2018  
Place: Panchkula

(Jagjeet Singh)  
Chairman