



**Petition No. 1868 of 2022**

**BEFORE**

**THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION**

**LUCKNOW**

**Date of Order: 16.03.2023**

**PRESENT:**

Hon'ble Shri Raj Pratap Singh, Chairman

Hon'ble Shri Vinod Kumar Srivastava, Member (Law)

**IN THE MATTER OF:** Petition under Section 86 (1)(b) of the Electricity Act, 2003 for seeking approval of the long-term battery energy storage purchase agreement i.e., battery energy storage purchase agreement and bidding document for invitation of E-Tender for the installation of energy storage system of 10MW x 4 Hrs. in the state of Uttar Pradesh.

**U.P. Power Corporation Ltd. (UPPCL)**

(Through its Chief Engineer- PPA),

14<sup>th</sup> Floor, Shakti Bhawan Extn., 14-Ashok Marg, Lucknow

..... **Petitioner**

The following were present:

1. Sh. Deepak Raizada, CE-PPA, UPPCL
2. Sh. Mahendra Singh, SE-PPA, UPPCL
3. Sh. Arun, Consultant, UPPCL

**ORDER**

1. The Petitioner, UPPCL has decided to invite bid to install 10MWx4hrs Battery Energy Storage System (BESS) at identified substation in the state of Uttar Pradesh under Build Own Operate and Transfer (BOOT) mode for a period of Twelve years commencing from the Commercial Operations Date, in accordance with the provisions of the Battery Energy Storage Purchase Agreement (BESPA) to be entered into under and in accordance with the provisions of the Electricity Act, 2003.
2. The Petitioner has floated RfS documents on e-tender portal on dated 22.10.2022 for procurement of 5 x 10 MW x 4 hrs capacity BESS at five different locations of UPPTCL substations in the state of Uttar Pradesh, wherein it was mentioned in the RfS Documents that, the BESS should have minimum Round trip Efficiency (RtE) 90% and Annual Availability 98%.



3. The Commission, vide its order dated 20.09.2022, held the following:

*"Commission's View:*

*15. In view of the above, the Commission allows UPPCL to proceed with the bidding process with the following directions:*

- a) UPPCL shall select Revenue Surplus locations, this being first project, viability is important, subject to availability, and*
- b) UPPCL shall specify the locations(s) of the project in the bid.*
- c) Performance Parameters:
  - i) UPPCL shall specify minimum RtE of 90% instead of 97.5% on monthly basis.*
  - ii) For BESS monthly availability less than 70%, no tariff would be payable.**
- d) Legally validate the term "Liquidated damages" in the bid document.*
- e) Specify treatment of DSM for charging / discharging schedule for the BESS."*

4. The Commission approved the bidding document with liberty to approach this Commission for changes required, if any, based on the Pre-bid meeting.

5. The Petitioner vide affidavit dated 14.02.23 has submitted that it had conducted pre-bid meeting on 09-11-2022, wherein, various participants / prospective bidders had submitted their queries and suggestions on annual availability and Round-trip Efficiency (RtE) mentioned in the RfS documents. The Petitioner, after reviewing the modification/ queries and in view of market practice and SECI RfS documents, has made certain modifications/ amendments in the RfS Documents on the above said two points (i.e., RtE to 85% from 90% and Annual Availability to 95% from 98%).

6. Further, the Petitioner has submitted that UP Solar policy 2022 has been published on 23.11.2022. As per clause 11.2 of this policy it is mentioned that *"Capital State Subsidy of Rs 2.50 Crore per megawatt will be provided to Utility scale solar power projects set up with 4 hours battery storage system of 05 megawatt capacity or above and standalone battery storage system (energized by solar energy only) for sale of power to Distribution*

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licensee/ UPPCL". This clause has been proposed to be incorporated in the RfS Documents.

7. The following are the key details of the modifications/ amendments in the RfS Documents proposed for approval of the Commission:

**Key modifications/ amendments proposed in the RfS Documents**

S. No.	Particulars	Existing Provision	Modified/ Amended Provision (As Requested)
(i)	Capital Subsidy as per UP Solar Policy - 2022	Nil	As per clause 11.2 of the UP Solar Policy 2022. <i>The Capital Subsidy of Rs. 2.50 Crore per MW will be provided to utility-scale Solar Power Projects set up with 4 hours battery storage system (energized by solar energy only) for sale of power to Distribution licensee/ UPPCL.</i>
(ii)	Round Trip Efficiency	<p>a) For <math>70\% \leq \text{RtE} &lt; 90\%</math>, there shall be a liquidated damage @ APPC charge of previous financial year of the Discoms of excess conversion losses considering system <math>\text{RtE} = 90\%</math></p> <p>(b) For <math>\text{RtE} &lt; 70\%</math>, there shall be a liquidated damage levied @ APPC charge of previous financial year of the Discoms of excess conversion losses considering system <math>\text{RtE} = 90\%</math> and tariff payment for the corresponding month shall not be made to the BESSD</p>	<p>Most of the bidders in the pre-bid meeting requested UPPCL to reduce the minimum Round trip Efficiency (RtE) to 85% from 90%. Considering the request of the bidders and parameters of other similar bids (SECI), UPPCL seek approval of the Commission to allow RtE of 85% as sought by bidders in the pre-bid meeting.</p> <p>Accordingly, the Petitioner has requested to revise the clause as following:  <i>a) For <math>70\% \leq \text{RtE} &lt; 85\%</math>, there shall be a liquidated damage @ APPC charge of previous financial year of the Discoms of excess conversion losses considering system <math>\text{RtE} = 85\%</math></i>  <i>(b) For <math>\text{RtE} &lt; 70\%</math>, there shall be a liquidated damage levied @ APPC charge</i></p>

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S. No.	Particulars	Existing Provision	Modified/ Amended Provision (As Requested)
			<i>of previous financial year of the Discoms of excess conversion losses considering system RtE = 85% and tariff payment for the corresponding month shall not be made to the BESSD</i>
(iii)	Annual Availability	Annual Availability of 98%	Most of the bidders in the pre-bid meeting raised a query that the Annual Availability of 98% is on much higher side and requested UPPCL to modify it to 95%.  Considering the request of the bidders and parameters of other similar bids (SECI, GUVNL and KSEB), Petitioner has requested the Commission to modify/ amend the Annual Availability to 95%

8. The Commission, in view of BESS being at initial stage in the State of U.P. and encourage further development in the interest of Public at large, approves the proposed amendments to the RfS document.

**The Petition is disposed of in terms of the above.**

**(Vinod Kumar Srivastava)**  
Member

**(Raj Pratap Singh)**  
Chairman

Place: Lucknow  
Dated: 16.03.2023