

SOLAR ENERGY CORPORATION OF INDIA LIMITED
NEW DELHI

Ref No. SECI/C&P/IPP/15/0001/22-23/Amendment-02

Dated 18.07.2022

Amendment-02 to RfS for Setting up of Pilot Projects of 500 MW/1000 MWh Standalone Battery Energy Storage Systems in India under Tariff-Based Competitive Bidding (ESS-I)			
RfS No. SECI/C&P/IPP/15/0001/22-23 dated: 13.04.2022			
Sr. No.	Clause/ Article No.	Existing Clause/Article	Amended Clause/Article
Amendments in the RfS, BESPAs and BESSAs documents			
1.	General	<p>1. The terms “Long Term Access/ Medium Term Access/ Short Term Access (LTA/MTA/STA)” occurring anywhere in the RfS, BESPAs and BESSAs documents shall be read as General Network Access under the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 and the responsibility of obtaining the General Network Access (GNA) vests with the Buying Entity. Clauses/provisions contradictory to the above shall be read accordingly.</p> <p>2. It is further clarified that the Entities (BESSD and Buying Entity) as indicated in the Detailed Procedure issued subsequently under the above Regulation, will be responsible for their respective obligation as notified in the Detailed Procedure irrespective of the provisions of the RfS, BESPAs, BESSAs.</p>	
Amendments in the RfS document			
1.	8.1.b.ii.	<p>Energy scheduled for discharge in a given cycle during a year shall be more than or equal to the Min. Dispatchable Energy Capacity at the End of Year as specified elsewhere under in this Clause.</p> <p>For example, during the 3rd Year after COD, the energy scheduled for discharge from 75 MW capacity shall be more than or equal to $75 \times 0.925 \times 2 = 138.75$ MWh.</p>	<p>Energy scheduled for discharge in a given cycle during a year shall be more than or equal to the Min. Dispatchable Energy Capacity at the End of Year as specified in Clause 8.1.e.iv. below, and shall be limited to the quantum specified for the immediately previous year, as specified in Clause 8.1.e.iv. below.</p> <p>For example, during the 3rd Year after COD, the energy scheduled for discharge from 75 MW capacity shall be more than or equal to $75 \times 0.925 \times 2 = 138.75$ MWh and less than or equal to $75 \times 0.95 \times 2 = 142.5$ MWh.</p>
2.	10.	Addendum to the Clause	<p>In case of delay in Project commissioning on account of reasons solely attributable to the BESSD, resulting in any liquidated damages/penalty levied on the Buying Entity under the GNA Regulations, such damages/penalty shall be passed on to and payable by the BESSD.</p>

3.	38.10	New Clause	For meeting the Financial Eligibility criteria under the RfS, Bidders are allowed to use financials of FY 2021-22 instead of 2020-21, if available.
4.	Annexure-A, Sl. 9.	Modified as follows Please refer Annexure to this Amendment.	
Amendments in the BESP document			
1.	1.1 Definitions: "Due Date"	shall mean the seventy-fifth (75th) day after a Monthly Bill (including all the relevant documents) or a Supplementary Bill is received....	shall mean the forty-fifth (45th) day after a Monthly Bill (including all the relevant documents) or a Supplementary Bill is received....
2.	4.4.1.ii.	Energy scheduled for discharge in a given cycle during a year shall be more than or equal to the Min. Dispatchable Energy Capacity at the End of Year as specified elsewhere under Article 4.4.2.(c). For example, during the 3rd Year after COD, the energy scheduled for discharge from 75 MW capacity shall be more than or equal to $75 \times 0.925 \times 2 = 138.75$ MWh.	Energy scheduled for discharge in a given cycle during a year shall be more than or equal to the Min. Dispatchable Energy Capacity at the End of Year as specified under Article 4.4.2.(c) and shall be limited to the quantum specified for the immediately previous year, as specified in Article 4.4.2.(c). For example, during the 3rd Year after COD, the energy scheduled for discharge from 75 MW capacity shall be more than or equal to $75 \times 0.925 \times 2 = 138.75$ MWh and less than or equal to $75 \times 0.95 \times 2 = 142.5$ MWh.
3.	4.5.6	Addendum to the Clause	Further, in case of delay in Project commissioning on account of reasons solely attributable to the BESSD, resulting in any liquidated damages/penalty levied on the Buying Entity under the GNA Regulations, such damages/penalty shall be passed on to and payable by the BESSD.
4.	6.2	New Clause Supply obligation of the BESSD: In case the BESSD fails to offer the contracted power as per this Agreement to SECI/Buying Entity and sells the contracted power without its consent to any other party, the BESSD, on a complaint to this effect by SECI/Buying Entity to the load dispatch centre concerned, shall be debarred from participating in Power Exchanges and on the Discovery of Efficient Electricity Pricing portal and scheduling of any new short-term contracts from the Project for a period of three months from the date on which the default has been taken cognizance by the concerned load dispatch centre. The period of debarment shall increase to six months for second default and shall be one year for each successive default. Such debarment of the BESSD shall be without prejudice to the rights of SECI/Buying Entity for seeking compensation for the default by the BESSD under this Agreement.	

5.	10.1.5	<p>New Clause</p> <p>The parties acknowledge and accept that the Electricity (Late Payment Surcharge and related matters) Rules, 2022 [hereinafter referred to as ‘Rules’] notified by the Central Government in exercise of the power conferred by Sub-section (1) of Section 176 of the Electricity Act, 2003 shall apply and govern the terms and conditions of this Agreement in regard to matters contained in the said Rules including but not limited to the Late Payment Surcharge, adjustment towards the Late Payment Surcharge, Payment Security mechanism-its operations and consequences, actions of Defaulting Entities, supply obligation of BESSD, power not requisitioned by the Buying Entity, the order of payment and adjustment towards late payment surcharge and indemnification. The above shall apply both in regard to the present agreement as well as on mutatis mutandi and back to back basis to the BESSA. The Rules referred to hereinabove being statutory shall, to the extent applicable, supersede any provisions in this BESPA and the BESSA which are inconsistent or contrary to the provisions of the Rules.</p>	
6.	10.3.5	For payment of any Bill on or before the 45 th Day after presentation of Bill to SECI, the following Rebate shall be paid by the BESSD to SECI in the following manner:.....	For payment of any Bill before Due Date, the following Rebate shall be paid by the BESSD to SECI in the following manner:.....
7.	10.3.5.	(b) Any payments made after ten (10) days of the date of presentation of Bill through hard copy up to the date as on 45 th Day after presentation of Bill to SECI, shall be allowed a rebate of 1 %.	(b) Any payments made after 10 Days upto and including the 30 th Day after the date of presentation of Bill through hard copy, shall be allowed a rebate of 1 %.
Amendments in the BESSA document			
1.	Recital XIV	<p>New Clause</p> <p>The Buying Entity shall be responsible for obtaining Grid Access as per the Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022, within 30 days of signing of BESSA, at its own risk and cost.</p>	
2.	2.1	From the commencement of supply of power by SECI, the Buying Entity shall pay to SECI the monthly Tariff Payments, on or before the Due Date, in accordance with Tariff as specified in Article 1. ...	The parties acknowledge and accept that the Electricity (Late Payment Surcharge and related matters) Rules, 2022 [hereinafter referred to as ‘ Rules ’] notified by the Central Government in exercise of the power conferred by Sub-section (1) of Section 176 of the Electricity Act, 2003 shall apply and govern the terms and conditions of this Agreement (BESSA) in regard to matters contained in the said Rules including but not limited to the Late Payment Surcharge, adjustment towards the Late Payment Surcharge, Payment Security mechanism-its operations and consequences, actions of Defaulting Entities, supply obligation of BESSD, power not requisitioned by the Buying Entity, the order of

			<p>payment and adjustment towards late payment surcharge and indemnification. The above shall apply both in regard to the present agreement as well as on mutatis mutandi and back to back basis to the BESP. The Rules referred to hereinabove being statutory shall, to the extent applicable, supersede any provisions in this Agreement (BESSA) and BESP which are inconsistent or contrary to the provisions of the Rules.</p> <p>Subject to the above, from the commencement of supply of power by SECI, the Buying Entity shall pay to SECI the monthly Tariff Payments, on or before the Due Date, in accordance with Tariff as specified in Article 1. ...</p>
3.	2.2.1	The Buying Entity shall pay the amount payable under the Monthly Bill on or before the Due Date i.e. within 60 days of presentation of bill within official hours....	The Buying Entity shall pay the amount payable under the Monthly Bill on or before the Due Date i.e. within 30 days of presentation of bill within official hours....
4.	2.3Late Payment Surcharge shall be payable on the outstanding payment beyond 30 days after the Due Date at the base rate of Late Payment Surcharge applicable for the period for the first month of default.....Late Payment Surcharge shall be payable on the outstanding payment beyond the Due Date at the base rate of Late Payment Surcharge applicable for the period for the first month of default.....
5.	2.3(a)	<p>Modified as follows</p> <p><i>Regulation of access to defaulting entities</i> -In case of non-payment of dues by the Buying Entity even after two and half months from presentation of bill by SECI, or in case of default in the payment of instalments fixed under rule 5 of the Rules referred in Article 2.1, the power supply to the defaulting entity shall be regulated as follows: -</p> <p>(1) Short-term access, for sale and purchase of electricity including in the power exchange shall be regulated entirely: Provided that the same shall be also applicable on already approved short-term access: Provided further that the National Load Despatch Centre may, under exceptional circumstances for grid security, temporarily review the regulation of short-term access under this rule, and record the reasons for doing so, in writing.</p> <p>(2) If, even one month after the regulation of the short-term access or if the dues have remained unpaid for three and a half months, apart from the regulation of the short-term access in its entirety, the long and medium- term access shall be regulated by ten per cent (10%).</p>	

		<p>(3) Reduction or withdrawal of long-term access and medium-term open access shall be in such manner that the quantum of reduction in drawl schedule increases progressively by ten per cent (10%) for each month of default.</p> <p>(4) On payment of outstanding dues, the regulation of access under this rule shall end and it shall be restored at the earliest, but not later than two days.</p> <p>(5) National Load Despatch Centre shall issue detailed procedure to implement the regulation of access according to these rules.</p> <p>(6) In case of such reduction of drawl schedule, the liability for payment of capacity charges for its original share in SECI as also the inter-state transmission charges shall remain with the regulated entity.</p>
6.	2.3 (b)	<p>Addendum to the Clause</p> <p><i>Order of payment and adjustment towards Late Payment Surcharge</i> - All the bills payable by the Buying Entity to SECI for the energy storage capacity procured from it, shall be time tagged with respect to the date and time of submission of the bill and the payment made by the Buying Entity shall be adjusted first against the oldest bill and then to the second oldest bill and so on, so as to ensure that payment against a bill is not adjusted unless and until all bills older than it have been paid for.</p>
7.	2.4 (b)	<p>Any payments made beyond a period of 5 days from the date of presentation of bill through email upto and including 30 days, shall be allowed a rebate of 1%.</p> <p>(b) Any payments made beyond a period of 5 Days upto and including the 20th Day from the date of presentation of bills through email, shall be allowed a rebate of 1%.</p>

Annexure-A, Sl. 9. amended as follows

Other Necessary Criteria:

- (a) BESS shall be capacity of operating in the frequency range of 47.5 Hz to 52 Hz and be able to deliver rated output in the frequency range of 49.5 Hz to 50.5 Hz.
- (b) BESS shall be capacity of operating when voltage at the interconnection point on any or all phases dips/rises to the high or low levels. The levels applicable for wind/solar inverter-based generation may be referred as available in Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations.
- (c) For grid support operations, BESS shall have provisions to provide primary frequency control. However, the activation of primary frequency response shall be as per the extant CEA/CERC regulations. The BESS should also be capable of providing reactive power support to the grid.
- (d) BESS shall operate to maintain voltages as per specified voltage ranges in Grid standards. BESS shall have feature to detect the voltage of interconnection point, and regulate voltage independently. The response time of the BESS shall not exceed the value specified in relevant standards or grid codes.
- (e) The BESS should provide reliable protection and not be limited to as an overvoltage/under-voltage protection, overcurrent protection, low-temperature/over-temperature protection of battery, DC insulation monitoring, etc.
- (f) BESS is required to have the following basic functions:
 - i) Monitoring: Monitor operational parameters, equipment status and communication status, alarm and faults of main equipment and BESS system, etc.
 - ii) Information exchange: Receive and process information with RLDC/NLDC including operation parameters, switching information, various alarms and alerts, protective action signals, control information, etc.
 - iii) Control: Including control mode and parameter setting with RLDC/NLDC.

BESS shall have capability to operate in AGC. The details regarding AGC signals required by not limited to, are given (the conventional power plant signal link) at the link, <https://posoco.in/download/detailed-signal-list-for-connecting-generators-under-agc/?wpdml=29546>

BESS shall be able to operate in AGC and be able to comply with the requirements desired by system operators. Some of the BESS signal list for implementation of AGC can be like below (list is indicative only):

- i) Maximum MW permissible (dynamic or user entry)
- ii) Minimum MW permissible (dynamic or user entry)
- iii) Ramp rate up permissible (dynamic or user entry)
- iv) Ramp rate down permissible (dynamic or user entry)
- v) Actual MW
- vi) Actual MVAR
- vii) Auxiliary Consumption MW
- viii) Scheduled MW (dynamic or user entry)
- ix) BESS Temperature (for monitoring and correlation)
- x) Ambient Temperature (for monitoring and correlation)

- xi) Cycle limits (0-100%) per day (user entry)
- xii) Circuit breaker status
- xiii) Local/Remote status
- xiv) AGC Set Point MW from NLDC to BESS
- xv) Voltage (kV) at grid level
- xvi) Voltage (V) at BESS LV side

- (h) The static information like detailed write-up on present operation methodology of BESS, forbidden zones, number of cycle limits, Auxiliary consumption details, capability curve, simulation models (RMS/PSCAD) along with description or any specific information about BESS shall also be furnished as and when required by RLDC/NLDC.
- (i) In addition to the above, the capacity reserved for POSOCO i.e. 30% of the Project Capacity shall also respond to secondary and Tertiary control signals from the Nodal Agency for providing SRAS-UP, TRAS-UP and SRAS-Down, TRAS-UP services as defined under the Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2021. The performance monitoring and incentives, if any for the SRAS/TRAS shall be in accordance with the extant Regulations for Ancillary Services.
- (j) BESS will ensure the compliance of requirements mentioned in procedure of First Time Charging (FTC) as applicable for other power system elements. The consolidated FTC procedure including the requirements for BESS is available in public domain at https://posoco.in/wp-content/uploads/2021/04/Procedure_for_Integration_of_Power_System_Elements.pdf.”