**SOLAR ENERGY CORPORATION OF INDIA LIMITED**
**NEW DELHI**

Ref No. SECI/C&P/OP/15/0001/25-26/Amendment-01 Date: 15.09.2025

**Amendment-01 to RfP for Selection of Contractor for Balance of System along with 5 years of Comprehensive O&M of 600 MW/1200 MWh BESS Project at Nandiyal, Andhra Pradesh (AC Package)**

**RfS No. SECI/C&P/OP/15/0002/25-26 dated 20/08/2025**

<table>
<tr><th>S. No.</th><th>Clause No.</th><th>Existing Clause</th><th>Amended Clause</th></tr>
<tr><td>1</td><td>10.1</td><td>The deadline for completion of the entire scope of Works under the RfP and/or Contract Agreement, including Design, Engineering, Procurement and Supply (except BESS), Construction, Erection, Testing and Commissioning shall be the date as on 14 (Fourteen) Months from the Effective Date of the Contract Agreement (CA). For example, if the Effective Date of the Agreement is 10.10.2025, the above deadline shall be 10.12.2026. The detailed procedure and scope of Testing and Commissioning is mentioned in the Annexure-B.</td><td>The deadline for completion of the entire scope of Works under the RfP and/or Contract Agreement, including Design, Engineering, Procurement and Supply (except BESS), Construction, Erection, Testing and Commissioning shall be as follows:<br><table><tr><td>AC package Capacity</td><td>Timeline for commissioning*</td></tr><tr><td>300MW/ 600 MWh</td><td>14 months</td></tr><tr><td>600 MW/ 1200 MWh</td><td>16 months</td></tr></table>*from the Effective Date of the Contract Agreement (CA).<br><br>For example, if the Effective Date of the Agreement is 10.10.2025, the above deadline for 300 MW/600 MWh shall be 10.12.2026 and for 600 MW/1200 MWh shall be 10.02.2027. The detailed procedure and scope of Testing and Commissioning is mentioned in the Annexure-B.</td></tr>
<tr><td>2</td><td>11.1</td><td>…If the level of the specified Functional Guarantee parameters, as demonstrated even during repeat of the Guarantee Test(s), are outside the acceptable shortfall limit, the Employer/SECI may at its option, either,<br>• Reject the Equipment and advise immediate replacement to suit the</td><td>…..If the level of the specified Functional Guarantee parameters, as demonstrated even during repeat of the Guarantee Test(s), are outside the acceptable shortfall limit, then the Liquidated Damages shall be laid as mentioned in the Annexure B of the RfP document.</td></tr>
</table>

| | | | |
|---|---|---|---|
| | | provisions of Technical Specification without any additional cost or;<br>• Reject the Equipment and recover the payments already made, or;<br>• Terminate the Contract and recover the payments already made, or;<br>• Accept the equipment after levy of liquidated damages in accordance with the provisions specified… | |
| 3 | 19.1 | …with a validity period up to (& including) the date as on 78 Months (14 Months Project commissioning period) + prescribed O&M Period, i.e., 60 Months + 04 Months additional) from the date of issuance of NoA… | …with a validity period up to (& including) the date as on 80 Months (16 Months Project commissioning period) + prescribed O&M Period, i.e., 60 Months + 04 Months additional) from the date of issuance of NoA… |
| 4 | 19.8.b. | In case the Contractor is unable to submit Drawing & Test Certificates within the reasonable time. | Void |
| 5 | 63.19 | **Clause modified as follows:**<br><br>The Contractor shall also arrange suitable insurance to cover following during the O&M Period:<br><br><u>Machinery Breakdown:</u> Electrical & or machinery breakdown of any machinery or other equipment resulting in costly repairs or even replacement of the equipment.<br><u>Property Damage:</u> The insurance should cover material damage due to external causes such as fire, theft, vandalism, sabotage, hail damage, snow load, lightning strike, overload, operational mistakes, clumsiness, negligence & theft.<br><u>Employer's Liability:</u> Provides cover against the risk of accident from usual workplace risks such as working at height & manual handling during construction & O&M period. | |
| 6 | 89.3 | <u>Working Capital:</u> The bidder should have a minimum Working Capital (WC) of INR 55.64 Crore as per the last audited annual financial year statement. If the bidder's working capital is inadequate, the bidder should supplement this with a letter from an Indian branch of a Scheduled Commercial Bank as listed on the website of Reserve Bank of India, as applicable on the date of issuance of letter, confirming availability of | <u>Working Capital:</u> The bidder should have a minimum Working Capital (WC) of INR 48.69 Crore as per the last audited annual financial year statement. If the bidder's working capital is inadequate, the bidder should supplement this with a letter from an Indian branch of a Scheduled Commercial Bank as listed on the website of Reserve Bank of India, as applicable on the date of issuance of letter, confirming availability of |

| | | | |
|---|---|---|---|
| | | the line of credit for more than or equal INR 55.64 Crore to meet the working Capital requirement. | the line of credit for more than or equal INR 48.69 Crore to meet the working Capital requirement**.** |
| 7 | 89. Note 2 | The Bidder, including any Member of a JV/Consortium, may seek qualification on the basis of financial capability of either its Parent, Holding, Subsidiary or Affiliate for the purpose of meeting the qualification requirements. However, financial qualification will be determined on aggregate basis by adding the financial capability of the bidder with its Parent/affiliates/Holding/Subsidiary, whose financials have been submitted by the bidder | The Bidder, including any Member of a JV/Consortium, may seek qualification on the basis of financial capability of its Parent, Holding, Subsidiary or Affiliate(s) for the purpose of meeting the qualification requirements. However, financial qualification will be determined on aggregate basis by adding the financial capability of the bidder with its Parent/affiliates/Holding/Subsidiary, whose financials have been submitted by the bidder. Further, it is clarified that bidder is allowed to use financial capability of more than 1 Affiliate/Parent/Ultimate Parent/ Group Company for meeting the qualification requirement. |
| 8 | 99.28 | Clause modified as follows:<br>"**DC PACKAGE**" means "Request for Proposals for Selection of BESS Supplier for 600 MW/1200 MWh Battery Energy Storage System (BESS) along with 15 years of Comprehensive Service and Maintenance (DC Package)" with RfP No. SECI/C&P/OP/15/0001/25-26 dated 04.08.2025 issued by SECI. | |
| 9 | Annexure B I.1 | Cumulative Power Transformer Capacity: 640 MVA | Cumulative Power Transformer Capacity: 660 MVA |
| 10 | Annexure B I.1 | Cumulative Inverter Duty Transformer Capacity: Minimum 640 MVA | Cumulative Inverter Duty Transformer Capacity: Minimum 660 MVA |
| 11 | Annexure B I.1 | O&M period: 15 Years 3 months | O&M period: 5 Years |
| 12 | Annexure B I.1 | Plant End Substation Power Transformer (33/220 kV) Capacity: 640 MVA | Plant End Substation Power Transformer (33/220 kV) Capacity: 660 MVA Minimum |
| 13 | Annexure B I.1 | **Transmission Line from Pooling Substation to Interconnecting Substation:** | **Transmission Line from Pooling Substation to Interconnecting Substation:** |

<table>
<tr><td></td><td></td><td>220KV DCSS line from project site up to 400/220KV S/s Kurnool (Approximate aerial distance 2 km)<br>Note: Construction of 220KV Underground Cable from Pooling Sub-Station (plant end) to 400/220KV S/s Kurnool including all clearances shall be in the scope of Contractor.</td><td>220KV DCSS line from project site up to 400/220kV S/s Kurnool via Overhead Transmission lines/ Underground Cables (Approximate aerial distance 2 km)<br>Note: Right of Way (RoW) and associated clearances shall be in the scope of Contractor.</td></tr>
<tr><td>14</td><td>Annexure B I.1</td><td>For Operational Acceptance<br>The round-trip efficiency and dispatchable energy shall meet the minimum requirements as stipulated at the start of operation.</td><td>For Operational Acceptance:<br>1. Dispatchable energy shall meet the minimum requirements as stipulated at the start of operation.<br>2. Guaranteed ceiling of 4% on system losses post-AC terminals of PCS till PoI, so as to demonstrate 82% round-trip efficiency, inclusive of auxiliary consumption</td></tr>
<tr><td>15</td><td>Annexure B I.1</td><td>BESS Availability: 98%</td><td>System Availability: 98%</td></tr>
<tr><td>16</td><td>Annexure B I.3.1</td><td>13 Cable Trenches, Trays, and Supports<br><table><tr><th>DC Package</th><th>AC Package</th></tr><tr><td>✓ (up to PCS)</td><td>✓ (beyond PCS)</td></tr></table></td><td>13 Cable Trenches, Trays, and Supports<br><table><tr><th>DC Package</th><th>AC Package</th></tr><tr><td></td><td>✓</td></tr></table></td></tr>
<tr><td>17</td><td>Annexure B I.9.6</td><td>The Contractor shall establish forecasting tools for submitting schedule and comply with<br>respective CERC/SERC Regulations on Forecasting, Scheduling and Deviation settlement of generation.</td><td>VOID</td></tr>
<tr><td>18</td><td>Annexure B II.2.2</td><td>RMU Requirement: 3 VCBs, 1 Metering PT( (2 cores, 50 VA), 1 Cast Resin Power VT (250 VA)</td><td>Removed</td></tr>
<tr><td>19</td><td>Annexure B II.13</td><td><u>Power Transformer</u><br>As specified in Section I (Scope of Works), Power Transformer of 33/220 kV ONAN/ONAF with OCTC Power Transformer shall be provided in line with “Standard Technical Specifications of</td><td><u>Power Transformer</u><br>As specified in Section I (Scope of Works), Power Transformer of 33/220 kV ONAN/ONAF with OLTC Power Transformer shall be provided in line with “Standard Technical Specifications of</td></tr>
</table>

| | | | |
|---|---|---|---|
| | | Transformer(s) for Solar Park pooling station" issued by<br>Central Electricity Authority (CEA). The transformer shall be capable of being overloaded to 110% for four hours in a 24-hour cycle | Transformer(s) for Solar Park pooling station" issued by<br>Central Electricity Authority (CEA). The transformer shall be capable of being overloaded to 110% for four hours in a 24-hour cycle |
| 20 | Annexure B II.22.3 | The ROW for the TL/UG cable shall be obtained prior to the construction of the line from the concerned authorities. | The RoW for the TL/UG cable shall be obtained prior to the construction of the line from the concerned authorities. Compensation shall follow from the MoP Order No. F. No. 3/4/2016-Trans-Part(4)) titled "**Guidelines for Payment of Compensation for Right of Way for Transmission Lines**" |
| 21 | Annexure B IX.3.1.2 | The following equipment shall be used during the commissioning process (Refer clause 21 of Section II: Technical Specifications for testing instruments):<br>o Earth resistance tester<br>o Insulation tester<br>o Digital multi-meter<br>o Clamp meter<br>o Infrared camera<br>o Digital lux meter<br>o Electroluminescence camera, power supply and accessories<br>All testing equipment shall possess valid calibration certificate issued from approved laboratories. | The following equipment shall be used during the commissioning process (Refer clause 21 of Section II: Technical Specifications for testing instruments):<br>o Earth resistance tester<br>o Insulation tester<br>o Digital multi-meter<br>o Clamp meter<br>o Infrared camera<br>o Digital lux meter<br>All testing equipment shall possess valid calibration certificate issued from approved laboratories. |
| 22 | Annexure B IX.3.2.2.2. | Pre-Energizing Tests | VOID |
| 23 | Annexure B IX.3.3.1 | **Clause modified as follows:**<br><br>**BESS Inverter Availability Test**<br><u>Calculation of the Operation Time</u><br>It shall be calculated on inverter level. The operation time starts as soon as the BESS inverter is available for dispatch and capable of charging or discharging based on grid conditions and system commands. Therefore, only the periods when the BESS is | |

| | | |
|---|---|---|
| | | operationally available and the grid connection permits power exchange shall be considered. Time periods when the system is intentionally idle due to State of Charge (SOC) limits, scheduled maintenance, or grid disconnect commands shall be distinguished from actual downtime.<br><br><u>Calculation of the Downtime</u><br>The downtime relevant for the availability calculation is any time in which the BESS inverter is not operational when grid conditions would otherwise permit operation. The outage periods shall be considered on inverter level. Only complete outages shall be taken into consideration. System outages due to the following reasons shall not flow into the calculation (i.e., excluded events):<br><br>(i) A failure in the grid making it impossible to transmit the generated power<br>(ii) Causes of Force Majeure<br>(iii) Battery Management System (BMS) protective actions due to temperature, voltage, or current limits that are outside normal operating parameters<br>(iv) Occurrences of anomalies in the power supply system (frequency differences or voltage surges) that trigger the protective systems of the BESS or the limit settings of the inverter<br>(v) Planned maintenance windows and scheduled testing periods as defined in the operation and maintenance agreement<br>(vi) SOC-based limitations when the battery reaches maximum or minimum state of charge limits as specified by the manufacturer<br>(vii) Any forced disconnection due to grid operator commands or market dispatch instructions<br>(viii) Thermal management system protective shutdowns within manufacturer specifications<br><br>Any forced disconnection shall be documented and recorded. |
| 24 | Annexure B<br><br>IX.3.4 | **Clause modified as follows:**<br>**SCADA Reliability and EMS Integration**<br>• Installation of the communication system architecture diagram according to the specifications<br>• Functional Tests conducted during FAT for Pre-Dispatch Inspection shall be repeated.<br>• SCADA shall be linked to all protection relays, disturbance recorders and other substation equipment using the communications protocol<br>**• Demonstration that SCADA and EMS can transmit and receive tags, setpoints, and control commands to and from each other, and the PCS, BMS, and protection systems without loss or excessive delay.**<br>**• Verification of time synchronization across devices.** |

| | | | |
|---|---|---|---|
| | | • Visual check on the assembly of all joints and on the as-installed condition of all components, including:<br>o Ambient temperature sensors are installed properly<br>oMechanical anchorage of the sensors is robust.<br>o Complete calibration certificates of all the instruments shall be provided | |
| 25 | Annexure B<br><br>IX.3.6.1 | This test shall be conducted **3 times for 100% Rated Power, 1 time each for 75%, 50%, 25% of rated power**. Data shall be collected from the Plant SCADA and the following data shall be tabulated in Table 1 for each case. | This test shall be conducted **3 times for 100% Rated Power**. Data shall be collected from the Plant SCADA and the following data shall be tabulated in Table 1 for each case. |
| 26 | Annexure B<br><br>IX.3.6.1 | **Acceptance criteria**<br>Dispatchable energy at the Point of Interconnection shall be at least equal to the dispatchable capacity for the first year specified by the Employer for:<br>(i) AC Terminals of Power Conditioning System (PCS)<br>(ii) Point of Interconnection at 220 kV | **Acceptance criteria**<br>Dispatchable energy at the Point of Interconnection shall be at least equal to the dispatchable capacity for the first year specified by the Employer for Point of Interconnection at 220 kV |
| 27 | Annexure B<br><br>IX.3.6.2 | **Acceptance criteria**<br>Round-trip efficiency of the BESS shall be more than or equal to, including auxiliary consumption at 100% rated power:<br>(i) 86% at the PCS AC Terminals<br>(ii)82% at the 220 kV Interconnection Point | **Acceptance criteria**<br>Round-trip efficiency of the BESS shall be more than or equal to 82%, including auxiliary consumption, at 100% rated power at the 220 kV Interconnection Point |
| 28 | Annexure B<br><br>IX.4.3 | **New Clause**<br>**Correction Formula for estimating LD for AC Contractor:**<br>The following correction shall be applied on the AC RTE:<br><br>$\eta_{actual,ac} = \eta_{measured,ac} + \max(86\% - \eta_{actual,dc}, 0)$ | |
| 29 | Annexure B<br><br>SectionXIII. | b. Calculation of liquidated damages<br>The LD amount shall be calculated as follows:<br>$P = \Delta E \times R$<br>Where<br>• ΔE is (A_guaranteed - A_actual) | b. Calculation of liquidated damages<br>The LD amount shall be calculated as follows:<br>$P = \Delta E \times R$<br><br>Where:<br>• ΔE is (A_guaranteed - A_actual) |

| | | | |
|---|---|---|---|
| | Annexure 2.B | • B is the total energy scheduled for dispatch during the billing period<br>• A_guaranteed is the guaranteed availability as specified elsewhere in the document (refer Scope of Works)<br>• A_actual is the availability demonstrated during the billing period<br>• R is the reference rate of Rs 4.5 per kWh (INR/kWh)<br>• r is the annual discount rate, i.e. 8.5%<br>• N is the number of years over which the performance is evaluated as specified elsewhere in the document (refer Scope of Works) | • B is the total energy scheduled for dispatch during the billing period<br>• A_guaranteed is the guaranteed availability as specified elsewhere in the document (refer Scope of Works)<br>• A_actual is the availability demonstrated during the billing period<br>• R is the reference rate of INR 4.5 per kWh (INR/kWh) |