SOLAR ENERGY CORPORATION OF INDIA LIMITED
NEW DELHI

Ref No. SECI/C&P/IPP/13/0020/25-26/Amendment-01 Date: 02.04.2026

Amendment-01 to RfS for Selection of RE Power Developers for Supply of 1000 MW of Round-the-Clock Thermal Mimic (RTC-TM) Power from ISTS-connected Renewable Energy (RE) Power Projects in India, under Tariff-based Competitive Bidding (SECI-RTC-TM-V)			
RfS No. SECI/C&P/IPP/13/0020/25-26 dated 10.03.2026			
S. No.	**Clause/ Article No.**	**Existing Clause/Article**	**Amended Clause/Article**
Amendments in the RfS document			
1.	5.1	A Bidder, including its Parent, Affiliate or Ultimate Parent or any Group Company shall submit a single bid offering a minimum quantum of cumulative Contracted Capacity of **100 MW** and a maximum quantum of **500 MW**, …	A Bidder, including its Parent, Affiliate or Ultimate Parent or any Group Company shall submit a single bid offering a minimum quantum of cumulative Contracted Capacity of **50 MW** and a maximum quantum of **500 MW**, …
2.	6.3.i	In this regard, any change in Delivery Point from the one mentioned in the Covering Letter at the time of bid submission shall be allowed till the deadline to apply for connectivity, subject to the condition that the Scheduled Commissioning Date of the proposed new Delivery Point is on or before 30th June, 2028. The Bidder/ RPD is required to provide the proof of SCD of substation in this regard at the time of intimation of such change to SECI. For the proof of SCD of substation, in case a Bidder/ RPD chooses to submit the proof of application of connectivity/ in-principle grant of connectivity/ final grant of connectivity of any entity than the Bidder/ RPD (whose connectivity is allowed to be utilized by the Bidder as per GNA regulations), the Bidder/ RPD is required to submit an Undertaking from the connectivity applicant/ grantee as per Annexure-I, along with copy of the application/ in-principle/ final grant of connectivity.	In this regard, any change in Delivery Point from the one mentioned in the Covering Letter at the time of bid submission shall be allowed till the deadline to apply for connectivity.
3.	7.5	… Bids indicating substations outside the above four choices will be liable for rejection. The substation being chosen in line with Sl. i, ii, iii, and iv above, should have a scheduled commissioning date on or before **30th June,**	… Bids indicating substations outside the above four choices will be liable for rejection.

		2028. The Bidder is required to provide the proof of SCD of substation in this regard at the time of bid submission, as part of Format-7.1 of the RfS. For the proof of SCD of substation, in case a Bidder chooses to submit the proof of application of connectivity/ in-principle grant of connectivity/ final grant of connectivity of any entity than the Bidder (whose connectivity is allowed to be utilized by the Bidder as per GNA regulations), the Bidder is required to submit an Undertaking from the connectivity applicant/ grantee as per Annexure-I, along with copy of the application/ in-principle/ final grant of connectivity, as part of Format-7.1 of the RfS.	
4.	8.1.a	**Clause modified as follows:** Demand Fulfilment Ratio: The procurement shall be in power (MW) terms. The RPD shall supply RE power in Round-the-Clock manner by maintaining the following Demand Fulfilment Ratios (DFR): (i) a minimum DFR of 90% in each time-block during the Peak Hours; (ii) a minimum DFR of 70% in each time-block during the off-Peak Hours. For the purpose of this Clause, a day shall consist of 96 time-blocks (each block comprising a 15 minutes' duration).	
5.	8.1.b	**Clause modified as follows:** "Demand Fulfilment Ratio" in a particular time-block for scheduling shall be calculated as follows: DFR = [Power Injection Scheduled by the RPD (MW) in a particular time block ÷ Contracted Capacity (MW)], subject to the maximum value of DFR being 1. The RPD's performance against this metric will be measured by: (i) adding up the shortfall of each time-block in meeting the min. DFR requirement during the Peak Hours; (ii) adding up the shortfall of each time-block in meeting the min. DFR requirement during the off-Peak Hours; Penalty for both the above shortfalls will be calculated on time-block-wise basis and will be reconciled on monthly basis. This aggregate penalty of both the above shortfalls shall be recovered on monthly basis from the subsequent monthly bill. However, it is further clarified that in the event a project is being mapped with two or more Buying Entities, the penalty for both the above shortfalls shall be calculated separately for each Buying Entity considering peak and off-peak hours of respective Buying Entity.	
6.	8.1.c	… The Buying Entity shall choose any 6 hours on a daily basis between 00:00 Hrs. to 10:00 Hrs. and 18:00 Hrs. to 24:00 Hrs. of a day, which shall be the 'Peak Hours' for that day. …	… The Buying Entity shall choose any 6 hours, on a daily basis, between 18:00 Hrs. in the evening of a day and 10:00 Hrs. in the morning of the subsequent day, which shall

			be the 'Peak Hours' for that day. …
7.	8.2.d	In a particular Contract Year, in case of shortfall in meeting min. annual DFR, along with shortfall in meeting time-block wise Peak and Off-Peak Hours DFR requirements, the higher of the following two penalties shall be applicable: (i) the penalty for shortfall in the minimum annual DFR, or (ii) the aggregate penalty for shortfall in the minimum DFR requirements for Peak and Off-Peak Hours. Illustration to this effect is enclosed at Annexure-C of the RfS.	In a particular Contract Year, the aggregate penalty for shortfall in the minimum DFR requirements for Peak and Off-Peak Hours shall be levied on the RPD. Illustration to this effect is enclosed at Annexure-C of the RfS.
8.	9.2.a	The Scheduled Commencement of Supply Date (SCSD) for supplying power from the full Project capacity shall be the date as on **18 months** from the Effective Date of the PPA (for e.g., if Effective Date of the PPA is 07.06.2026, then SCSD shall be 07.12.2027).	The Scheduled Commencement of Supply Date (SCSD) for the Project shall be achieved in a phased manner as detailed below: (i) Phase-I SCSD: The Energy Storage System (ESS) component proposed to be installed as part of the Project, along with the corresponding co-located RE generating component shall commence supply of power within **18 months** from the Effective Date of the PPA. (ii) Phase-II SCSD: The remaining RE generating component of the Project shall commence supply of power within **24 months** from the Effective Date of the PPA. The term 'SCSD' used anywhere in the RfS, PPA, and PSA, shall mean Phase-I/ Phase-II SCSD, as the context requires.
9.	9.2.b	The maximum time period allowed for commencement of power supply from the full Project Capacity with applicable penalty, shall be limited to the date as on **6 months** from the SCSD or the extended SCSD (if applicable) (for e.g., if SCSD is 07.12.2027, then the above deadline for commencement of power supply shall be 07.06.2028).	The maximum time period allowed for commencement of power supply from the respective Project components as specified at Clause 9.2.a.(i) and 9.2.a.(ii) above with applicable penalty, shall be limited to the date as on **6 months** from the respective (Phase-I/ II) SCSD or the extended SCSD (if applicable) (for e.g., if Phase-I SCSD is 07.12.2027, then the above deadline for commencement of power supply shall be 07.06.2028).
10.	9.2.c	In case of delay in commencement of power supply beyond the SCSD/ extended SCSD until the date as per Clause 9.2.b above, as part of the penalty, the total PBG amount for the Project	In case of delay in commencement of power supply from the respective Project components as specified at Clause 9.2.a.(i) and 9.2.a.(ii) above beyond the respective

		shall be encashed on pro-rata basis and proportionate to the Contracted Capacity that has not commenced supply of power.	(Phase-I/ II) SCSD/ extended SCSD until the date as per Clause 9.2.b above, as part of the penalty, the total PBG amount for the Project shall be encashed on pro-rata basis and proportionate to the Contracted Capacity that has not commenced supply of power.
11.	21.1	The Projects shall achieve Financial Closure by the date as on 6 months prior to the SCSD/ extended SCSD. (For e.g. if SCSD of the Project is 07.06.2028, then scheduled Financial Closure date shall be 07.12.2027).	The Projects shall achieve Financial Closure by the date as on 6 months prior to the Phase-I SCSD/ extended Phase-I SCSD. (For e.g. if Phase-I SCSD of the Project is 07.06.2028, then scheduled Financial Closure date shall be 07.12.2027).
12.	34.3	**Clause modified as follows:** A Bidder quoting for 'X' MW Contracted Capacity shall be required to submit credentials for either of the following: i. The Bidder should have successfully commissioned (as a Project Owner or as an EPC Contractor) **a single Generating Station/ Generating System/ Power Plant/ Power Project of Contracted Capacity not less than '4X/5' MW** in last seven years as on last date of bid submission. OR ii. The Bidder should have successfully commissioned (as a Project Owner or as an EPC Contractor) **02 (two) Generating Station/ Generating System/ Power Plant/ Power Project of Contracted Capacity not less than 'X/2' MW each** in last seven years as on last date of bid submission. OR iii. The Bidder should have successfully commissioned (as a Project Owner or as an EPC Contractor) **03 (three) Generating Station/ Generating System/ Power Plant/ Power Project of Contracted Capacity not less than '2X/5' MW each** in last seven years as on last date of bid submission. For the purpose of meeting the above qualification requirements, domestic as well as global experience shall be considered. The Bidder will be required to submit the commissioning certificate issued by the Competent Authority, along with copy of the latest invoice for energy payment supported with REA/ SEA/ JMR/ Obligation report issued by Power Exchange, along with their bid as part of the bid submission. In the case of a Bidder having the above experience as an EPC contractor, along with the above-mentioned documents issued in the name of its respective Employer (i.e. owner of the Generating System/ Power Plant/ Power Project), the Bidder will be required to submit the EPC Contract Agreement with the Employer. In case of the Bidder being a Bidding Consortium, the above technical requirement shall be met by the Lead Member of the Consortium.	

<table>
<tr><td></td><td></td><td colspan="2">For the purpose of meeting the above qualification requirements, the Bidder may seek qualification on the basis of technical capability of its Affiliate(s). In case of the Bidder being a Bidding Consortium, the Lead Member may seek qualification on the basis of technical capability of its Affiliate(s).</td></tr>
<tr><td>13.</td><td>40.4</td><td>… In case the partial capacity offered to the last Successful Bidder as per Cl. 40.2 above, is lower than 50% of the total quoted capacity by such Bidder or 100 MW, …</td><td>… In case the partial capacity offered to the last Successful Bidder as per Cl. 40.2 above, is lower than 50% of the total quoted capacity by such Bidder or 50 MW, …</td></tr>
<tr><td>14.</td><td>42.41</td><td>… The Buying Entity shall choose any 6 hours on a daily basis between 00:00 Hrs. to 10:00 Hrs. and 18:00 Hrs. to 24:00 Hrs. of a day, which shall be the ‘Peak Hours’ for that day. …</td><td>… The Buying Entity shall choose any 6 hours, on a daily basis, between 18:00 Hrs. in the evening of a day and 10:00 Hrs. in the morning of the subsequent day, which shall be the ‘Peak Hours’ for that day. …</td></tr>
<tr><td>15.</td><td>Annexure-A Sl. 1, 2, and 3</td><td colspan="2">Clause modified as follows:
1. SPV MODULES
a. The SPV modules used in the grid solar power Projects must qualify to the latest edition of any of the following IEC PV module qualification test or equivalent BIS standards.
<table>
<tr><td rowspan="5">All Solar PV Technologies</td><td>IS 14286 (Part 1):2023/ IEC 61215-1: 2021</td><td>Terrestrial Photovoltaic (PV) Modules – Design Qualification and Type Approval Part 1 Test Requirements</td></tr>
<tr><td>IS/IEC 61730-1:2016</td><td>Photovoltaic (PV) Module Safety Qualification Part 1 Requirements for Construction</td></tr>
<tr><td>IS/IEC 61730-2:2016</td><td>Photovoltaic (PV) Module Safety Qualification Part 2 Requirements for Testing</td></tr>
<tr><td>IS/IEC 61701 : 2011</td><td>Salt Mist Corrosion Testing of Photovoltaic (PV) Modules (for corrosive and marine environments – severity level may be fixed as per needs of site)</td></tr>
<tr><td>IS 16664 : 2018/ IEC 62716 : 2013</td><td>Photovoltaic (PV) Modules- Ammonia Corrosion Testing</td></tr>
<tr><td rowspan="2">Crystalline Silicon Terrestrial Photovoltaic (PV) modules (Si wafer based)</td><td>IS 14286 (Part 1/Sec 1) : 2023/ IEC 61215-1-1: 2021</td><td>Terrestrial Photovoltaic (PV) Modules – Design Qualification and Type Approval: Part 1 Test Requirements: Sec 1 Special requirements for testing of crystalline silicon photovoltaic (PV) modules.</td></tr>
<tr><td>IS 17210 : Part 1 : 2019/ IEC TS 62804-1 : 2015</td><td>Photovoltaic (PV) Modules — Test Methods for the Detection of Potential-Induced Degradation Part 1 Crystalline Silicon</td></tr>
<tr><td rowspan="2">Thin Film Modules [CdTe, a-Si, Cu (In,Ga) (S,Se)2]</td><td>IS 14286 : Part 1 : Sec 2 : 2023 /IEC 61215-12:2021 + AMD 1:2022)</td><td>Terrestrial photovoltaic PV modules Design qualification and type approval Part 1-2: Special requirements for testing of thin-film Cadmium Telluride CdTe based photovoltaic PV modules</td></tr>
<tr><td>IS 14286 (Part 1/Sec 3):2023 /IEC 61215-1-3 :2021 +</td><td>Terrestrial Photovoltaic (PV) Modules – Design Qualification and Type Approval Part 1 Test Requirements Section 3 Special requirements for</td></tr>
</table></td></tr>
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	Amd-1:2022	testing of thin-film amorphous silicon based photovoltaic (PV) modules
IS 14286 (Part 1/Sec 4): 2023/ IEC 61215-1-4: 2021 + Amd-1:2022		Terrestrial Photovoltaic (PV) Modules – Design Qualification and Type Approval Part 1 Test Requirements Section 4 Special requirements for testing of thin-film Cu (In,Ga)(S,Se)2 based photovoltaic (PV) modules
IEC TS 62804-2:2022		Photovoltaic (PV) modules - Test methods for the detection of potential-induced degradation - Part 2: Thin-film

b. In addition, SPV modules must qualify to IEC 61730 for safety qualification testing at 1000 V DC or higher. The modules to be used in a highly corrosive atmosphere throughout their lifetime must qualify to IEC 61701.
c. Only the Solar PV Module models and manufacturers included in Approved List of Models and Manufacturers (ALMM) List-I (of solar PV modules) are eligible for use, as revised from time to time.
d. It is mandatory to use both domestically manufactured solar PV Cells and domestically manufactured solar PV modules.

2. POWER CONDITIONERS/ INVERTERS

The Power Conditioners/Inverters of the SPV power plants must conform to the latest edition of IEC/ equivalent Indian Standards as specified below:

Efficiency Measurements	IS/IEC 61683:1999
Environmental Testing	
IS/IEC 60068 : Part 2 : Sec 1 : 2007	Environmental testing - Part 2-1: Tests - Test A: Cold
IS/IEC 60068 : Part 2 : Sec 2 : 2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat
IS/IEC 60068 : Part 2 : Sec 14 : 2023	Environmental testing - Part 2-14: Tests - Test N: Change of temperature
IS/IEC 60068 : Part 2 : Sec 30 : 2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)
Electromagnetic Compatibility (EMC)	
IS 14700-6-2 (2019) / IEC 61000-6-2 Ed. 2	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments
IEC 61000-6-4 Ed. 2.1	Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments
Electrical Safety	
IS 16221 : Part 1 : 2016/ IEC 62109-1 : 2010	Safety of Power Converters for use in Photovoltaic Power Systems Part 1 General Requirements
IS 16221 (Part 2): 2015/	Safety of Power Converters for Use in

		IEC 62109-2: 2011	Photovoltaic Power Systems Part 2 Particular Requirements for Inverters
		Anti-Islanding Protection	IS 16169: 2019/ IEC 62116: 2014
		Maximum Power Point Tracking Efficiency of Grid Connected Photovoltaic Inverters	IS 17980: 2022/IEC 62891:2020
		3. OTHER SUB-SYSTEMS/ COMPONENTS Other subsystems/ components used in the SPV Power Plants (Cables, Connectors, Junction Boxes, Surge Protection Devices etc.) must also conform to the relevant international/national Standards for Electrical Safety besides that for Quality required for ensuring Expected Service Life and Weather Resistance. It is recommended that the Cables of 600-1800 Volts DC for outdoor installations should comply with the IS 17293:2020 for service life expectancy of 25 years.	
16.	Appendix-A1	**Clause 2 and subsequent clauses modified/ added as follows:** **2. System Testing and Commissioning** The BESS shall be commissioned as per commissioning criteria and procedures specified by the CEA. **3. Identification and Traceability** Cells/Racks/Packs Assembly shall meet seismic requirement for the plant location of the BESS. Labelling of cells/batteries shall include manufacturer's name, cell type, name-plate rating, date of manufacture and date of expiry of parts and labour warranty. **4. Other Sub-systems/Components** Other subsystems/components used in the BESS must also conform to the relevant international/national Standards for Electrical Safety for ensuring Expected Service Life and Weather Resistance. **5. Fire Protection** The BESSD shall design and install a fire protection system that conforms to national and local codes. The fire protection system design and associated alarms shall take into account that the BESS will be unattended at most times. For high energy density technologies, the BESSD shall also obtain thermal runaway characterization of the battery storage systems. **6. Authorized Test Centres** Batteries/ Power Conditioning Units deployed in the power plants must have valid test certificates for their qualification as per above specified IEC/ BIS Standards by one of the ILAC member signatory accredited laboratories. In case of module types/ BESS/equipment for which such Test facilities may not exist in India at present, test certificates from reputed ILAC Member body accredited Labs abroad will be acceptable. **7. Warranty** BESSD shall procure performance guarantees from the OEM to ensure minimum performance levels for predefined application(s) as per the terms of the RfS. The Warranty shall clearly indicate life expectancy given discharge profiles provided for the application.	

8. Performance Monitoring

As part of the performance monitoring, the following shall be carried out:

a) The BESSD must install necessary equipment to continuously measure BESS operating parameters (including but not limited to voltage, current, ambient conditions etc.) as well as energy input into and energy output from the BESS along with Metering arrangement in accordance with extant regulations. They will be required to submit this data to SECI on line and/or through a report on regular basis every month for the entire duration of contract.

b) The BESSD shall provide access to the SECI/MNRE or their authorized representatives for installing any additional monitoring equipment to facilitate on-line transfer of data.

c) All data shall be made available as mentioned above for the entire duration of the Contract.

d) The plant SCADA should be OPC version 2.0a (or a later version including OPC UA) compliant and implement appropriate OPC-DA server as per the specification of OPC Foundation. All data should be accessible through this OPC server for providing real time online data (BESS parameters) to the SECI/ MNRE. This time series data shall be available from the Project SCADA system to facilitate monitoring and should include among others as stated before, below parameters to facilitate daily, monthly and annual Report for performance monitoring.

e) Web-based monitoring should be available, which should not be machine dependent. The web-based monitoring should provide the same screens as available in the plant. Also, it should be possible to download reports from a remote web-client in PDF or Excel format.

9. Other necessary criteria

i. Central Electricity Authority, Technical Standards for Connectivity to the Grid, (Amendment) Regulations, 2013 and 2019 mention connectivity standards applicable to the wind generating stations, generating stations using inverters, wind - solar photo voltaic hybrid systems and energy storage systems. BESS, being an inverter based power system element, shall also comply to the requirements specified for other generating stations using inverters.

Some of the requirements are indicated below and following shall be added separately in the "Technical and Regulatory Requirements to be followed by Battery Energy Storage System":

a) BESS shall be capable of operating in the frequency range 47.5 to 52 Hz and be able to deliver rated output both in charging and discharging mode in the frequency range of 49.5 Hz to 50.5 Hz.

b) **Low/High Voltage Ride Through (LVRT/HVRT) -** BESS shall be capable 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 generation sources (inverter-based) may be referred as available in CEA (Technical Standards for Connectivity to the Grid) Regulations shall be applicable to BESS.

c) **Dynamic Reactive Power Support / Voltage Control -** BESS shall have the feature to detect and regulate the voltage of interconnection point as per the specified capability

i.e. The BESS shall be capable of supplying dynamically varying reactive power support at least up to the limits specified for wind/solar generation sources (inverter-based) in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations. The response time of the BESS shall not exceed the value specified in relevant standards or grid codes.

d) **Primary Frequency Control –** The BESS shall have provisions for Primary Frequency Control with a droop which can be set as per system requirement between the range specified for wind/solar generation sources (inverter-based) in the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations.

e) BESS shall be capable to receive active power/reactive power set point from load despatch centres i.e. SLDC/RLDC.

f) The BESS shall have the black start and intentional island control capability to extend start-up of a blackout system or to operate independently after formation of an island.

g) 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 sharing with RLDC/NLDC

ii. 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/SLDC.

iii. 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

10. <u>Safe Disposal of unit Batteries from the BESS</u>

The Developer will comply with the requirements under Hazardous & other Waste (Management and Transboundary Movement) Rules, 2016, as amended from time to time, as applicable. The BESSD shall ensure that all Unit Battery modules from the plant after their 'end of life' (when they become defective/ non-operational/ non-repairable) are disposed in accordance with the "e-waste (Management and Handling) Rules, 2016" notified by the

		Government and as revised and amended from time to time and Battery Waste Management Rules, as and when notified by the Government of India.	
17.	Annexure-C	Revised Annexure is enclosed herewith.	
Amendments in PPA document			
1.	1.1 "Peak Hours"	… The Buying Entity shall choose any 6 hours on a daily basis between 00:00 Hrs. to 10:00 Hrs. and 18:00 Hrs. to 24:00 Hrs. of a day, which shall be the 'Peak Hours' for that day. …	… The Buying Entity shall choose any 6 hours, on a daily basis, between 18:00 Hrs. in the evening of a day and 10:00 Hrs. in the morning of the subsequent day, which shall be the 'Peak Hours' for that day. …
2.	1.1 "SCSD"	shall mean [Insert Date as per applicable provisions of the RfS].	for supply of power from Energy Storage System (ESS) component proposed to be installed as part of the Project, along with the corresponding co-located RE generating component shall mean ____ [Insert Date as on **18 months** from the Effective Date of the PPA] (hereinafter referred to as Phase-I SCSD); and for supply of power from the remaining RE generating component of the Project shall mean ___ [Insert Date as on **24 months** from the Effective Date of the PPA] (hereinafter referred to as Phase-II SCSD). The term 'SCSD' used anywhere in the PPA and PSA, shall mean Phase-I/ Phase-II SCSD, as the context requires.
3.	3.1.2.(a)	In this regard, any change in Delivery Point from the one mentioned in the Covering Letter at the time of bid submission shall be allowed till the deadline to apply for connectivity, subject to the condition that the Scheduled Commissioning Date of the proposed new Delivery Point is on or before 30th June, 2028. The Bidder/ RPD is required to provide the proof of SCD of substation in this regard at the time of intimation of such change to SECI. For the proof of SCD of substation, in case a Bidder/ RPD chooses to submit the proof of application of connectivity/ in-principle grant of connectivity/ final grant of connectivity of any entity than the Bidder/ RPD (whose connectivity is allowed to be utilized by the Bidder as per GNA regulations), the Bidder/ RPD is required to submit an Undertaking from the connectivity applicant/ grantee as per Annexure-I, along with	In this regard, any change in Delivery Point from the one mentioned in the Covering Letter at the time of bid submission shall be allowed till the deadline to apply for connectivity.

		copy of the application/ in-principle/ final grant of connectivity.	
4.	3.4	The RPD agrees and undertakes to duly perform and complete all of the following activities to achieve Financial Closure, at the RPD's own cost and risk, by the date as on 6 months prior to the SCSD/ extended SCSD: …	The RPD agrees and undertakes to duly perform and complete all of the following activities to achieve Financial Closure, at the RPD's own cost and risk, by the date as on 6 months prior to the Phase-I SCSD/ extended Phase-I SCSD: …
5.	4.4.1	**Article modified as follows:** **<u>Demand Fulfilment Ratio (DFR):</u>** Under this Agreement, procurement of Contracted Capacity shall be in power (MW) terms. The RPD shall supply RE power in Round-the-Clock manner by maintaining the following Demand Fulfilment Ratios (DFR): **(i) a minimum DFR of 90% in each time-block during the Peak Hours;** (ii) **a minimum DFR of 70% in each time-block during the off-Peak Hours.** For the purpose of this Article, a day shall consist of 96 time-blocks (each block comprising a 15 minutes' duration). "Demand Fulfilment Ratio" in a particular time-block for scheduling shall be calculated as follows: DFR = [Power Injection Scheduled by the RPD (MW) in a particular time block ÷ Contracted Capacity (MW)], subject to the maximum value of DFR being 1. The RPD's performance against this metric will be measured by: (i) adding up the shortfall of each time-block in meeting the min. DFR requirement during the Peak Hours; (ii) adding up the shortfall of each time-block in meeting the min. DFR requirement during the off-Peak Hours; Penalty for both the above shortfalls will be calculated on time-block-wise basis and will be reconciled on monthly basis. This aggregate penalty of both the above shortfalls shall be recovered on monthly basis from the subsequent monthly bill. However, it is further clarified that in the event a project is being mapped with two or more Buying Entities, the penalty for both the above shortfalls shall be calculated separately for each Buying Entity considering peak and off-peak hours of respective Buying Entity.	
6.	4.4.2	… The Buying Entity shall choose any 6 hours on a daily basis between 00:00 Hrs. to 10:00 Hrs. and 18:00 Hrs. to 24:00 Hrs. of a day, which shall be the 'Peak Hours' for that day. …	… The Buying Entity shall choose any 6 hours, on a daily basis, between 18:00 Hrs. in the evening of a day and 10:00 Hrs. in the morning of the subsequent day, which shall be the 'Peak Hours' for that day. …
7.	4.4.13	d) In a particular Contract Year, in case of shortfall in meeting min. annual DFR, along with shortfall in meeting time-block wise Peak	In a particular Contract Year, the aggregate penalty for shortfall in the minimum DFR requirements for Peak and Off-Peak Hours

		and Off-Peak Hours DFR requirements, the higher of the following two penalties shall be applicable: (i) the penalty for shortfall in the minimum annual DFR, or (ii) the aggregate penalty for shortfall in the minimum DFR requirements for Peak and Off-Peak Hours. Illustration to this effect is enclosed at Annexure-C of the RfS. Illustration to this effect is enclosed at Schedule-4 of the PPA.	shall be applicable on the RPD. Illustration to this effect is enclosed at Schedule-4 of the PPA.
8.	13.1.1.(i)	… failure to maintain minimum annual DFR requirement as per Article 4.4.1 for a period of 2 (two) consecutive Contract Years, excluding the first Contract Year ending on 31st March immediately after commencement of power supply …	… failure to maintain minimum DFR requirement as per Article 4.4.1 in every time-block during Peak and Off-Peak Hours for a period of 2 (two) consecutive Contract Years, excluding the first Contract Year ending on 31st March immediately after commencement of power supply …
9.	13.3.5	… RPD's min. annual Demand Fulfilment Ratio (DFR) requirement shall be reduced to the average of actual DFR achieved for the 2 default Contract Years and the RPD shall be liable to pay to Buying Entity(ies), lump-sum damages equivalent to 24 (twenty-four) months or balance PPA period, whichever is less, of the tariff, for the reduction in min. annual DFR obligation. … … In the event of termination of PPA in such cases and for other cases (except for the Event of Default on account of failure to commence supply of power within the stipulated time), the RPD shall be liable to pay to Buying Entity(ies), damages, equivalent to 24 (twenty-four) months, or balance PPA period, whichever is less, of tariff for its Contracted Capacity, calculated based on applicable minimum annual DFR obligation. …	… RPD's min. Peak and Off-Peak Hours Demand Fulfilment Ratio (DFR) requirement shall be reduced to the average of respective actual Peak and Off-Peak Hours DFR achieved for the 2 default Contract Years and the RPD shall be liable to pay to Buying Entity(ies), lump-sum damages equivalent to 24 (twenty-four) months or balance PPA period, whichever is less, for the amount corresponding to aggregate energy shortfall arising from reduction in both the min. Peak and off-Peak Hours DFR obligation. … … In the event of termination of PPA in such cases and for other cases (except for the Event of Default on account of failure to commence supply of power within the stipulated time), the RPD shall be liable to pay to Buying Entity(ies), damages equivalent to 24 (twenty-four) months, or balance PPA period, whichever is less, for the amount corresponding to aggregate energy based on the min. Peak and off-Peak Hours DFR obligation. …
10.	13.4.4	… In the event the aforesaid novation is not acceptable to the RPD, or if no offer of novation is made by SECI within the stipulated period, then the RPD may terminate the PPA and at its discretion require SECI to pay to the RPD, damages, equivalent to 24 (twenty-four)	… In the event the aforesaid novation is not acceptable to the RPD, or if no offer of novation is made by SECI within the stipulated period, then the RPD may terminate the PPA and at its discretion require SECI to pay to the RPD, damages, equivalent

		months, or balance PPA period, whichever is less, of charges of its Contracted Capacity, calculated based on applicable minimum annual DFR obligation. …	to 24 (twenty-four) months, or balance PPA period, whichever is less, for the amount corresponding to aggregate energy based on the min. Peak and off-Peak Hours DFR obligation. …
11.	Schedule-4	Modified Schedule is enclosed herewith.	
Amendments in PSA document			
1.	2.11.3	**Article modified as follows:** The provisions of Article 4.4 of the PPA shall be applicable mutatis mutandis to this Agreement. The RPD shall supply RE power in Round-the-Clock manner, matching the energy supply criteria stipulated in Article 4.4 of the PPA. The RPD shall be required to maintain the following Demand Fulfilment Ratios (DFR): (i) **a minimum DFR of 90% in each time-block during the Peak Hours;** (ii) **a minimum DFR of 70% in each time-block during the off-Peak Hours.** For the purpose of this Article, a day shall consist of 96 time-blocks (each block comprising a 15 minutes' duration). "Demand Fulfilment Ratio" for a particular time-block shall be calculated as follows: DFR = [Power Injection Scheduled by the RPD (MW) in a particular time block ÷ Contracted Capacity (MW)], subject to the maximum value of DFR being 1. The RPD's performance against this metric will be measured by: (iii) adding up the shortfall of each time-block in meeting the min. DFR requirement during the Peak Hours; (iv) adding up the shortfall of each time-block in meeting the min. DFR requirement during the off-Peak Hours; Penalty for both the above shortfalls will be calculated on time-block-wise basis and will be reconciled on monthly basis. This aggregate penalty of both the above shortfalls shall be recovered on monthly basis from the subsequent monthly bill. <u>Peak Hours:</u> The Buying Entity shall choose any 6 hours, on a daily basis, between 18:00 Hrs. in the evening of a day and 10:00 Hrs. in the morning of the subsequent day, which shall be the 'Peak Hours' for that day. These 6 hours shall be intimated by the Buying Entity on day-ahead basis and will constitute the Peak Hours for that day. All remaining hours outside these 6 Peak Hours chosen by the Buying Entity shall be referred to as 'Off-Peak Hours'. In case of non-receipt of Peak Hours schedule from the Buying Entity, the Peak Hours for that day shall be considered same as the Peak Hours of the preceding day. Penalties with respect to shortfall in meeting the above performance criteria will be dealt as per	

		the terms of PPA.	
2.	3.2.7	… equivalent to 24 (twenty-four) months, or balance PPA period, whichever is less, of charges for its Contracted Capacity, calculated based on applicable minimum annual DFR obligation. …	… equivalent to 24 (twenty-four) months, or balance PPA period, whichever is less, for the amount corresponding to aggregate energy based on the min. Peak and off-Peak Hours DFR obligation. …

Annexure – C (Revised)

ILLUSTRATION FOR PENALTIES APPLICABLE AGAINST SHORTFALL IN POWER SUPPLY (Clause 8 of the RfS)

❖ Assumptions

- Contracted Capacity w.r.t. the Buying Entity (A): 100 MW
- Applicable Tariff for the Project: **Rs. 4.0/kWh**
- Considering 5th Contract Year after commencement of power supply from last part capacity of the Project.
- Power supply profile for a typical month (say April) in the 5th year:

Illustration-1: Calculation of shortfall in meeting min. DFR requirement during Peak Hours and Off-Peak Hours (as per Clause 8.1.a.(i), 8.1.a.(ii), and 8.2.b of the RfS), to be reconciled on monthly basis

Time-block	Power required to be Scheduled (B = DFR x A) (in MW) (DFR@70% for Off-Peak Hours and @90% for Peak Hours)	Power Scheduled by the RPD during a day (C) (in MW)	Shortfall in Power Scheduled [D = max (B-C, 0)] (in MW)
00:00-00:15	90	85	5
00:15-00:30	90	95	0
00:30-00:45	70	85	0
00:45-01:00	70	85	0
…			
08:00–08:15	70	80	0
08:15–08:30	70	80	0
08:30–08:45	90	80	10
08:45–09:00	90	80	10
09:00–09:15	90	85	5
09:15–09:30	90	90	0
09:30–09:45	90	95	0
09:45–10:00	70	90	0
10:00–10:15	70	90	0
10:15–10:30	70	90	0
…			

17:00-17:15	70	85	0
17:15-17:30	70	85	0
17:30-17:45	70	80	0
17:45-18:00	70	80	0
18:00–18:15	90	85	5
18:15–18:30	90	85	5
18:30–18:45	90	90	0
18:45–19:00	90	90	0
19:00–19:15	90	90	0
19:15–19:30	90	90	0
19:30–19:45	90	90	0
19:45–20:00	90	90	0
20:00–20:15	70	90	0
20:15–20:30	70	90	0
20:30–20:45	70	85	0
20:45–21:00	70	85	0
21:00–21:15	90	90	0
21:15–21:30	90	90	0
21:30–21:45	90	90	0
21:45–22:00	90	90	0
…			
Total			**50**

*Sum total of shortfall in Power Scheduled in a day: ∑D = 50 MW,

**Considering same situation prevailing for the entire month, total shortfall in Energy in this month = 50 x 30 / 4 = 375 MWh.

***Assuming PPA Tariff of INR 4.0/kWh, Penalty for the above month = (1.5 x 4.0 x 375 x 1000)/10000000= INR 22.50 Lakhs

Note: The above illustration has been provided for a sample monthly data, based on assumptions as indicated. Actual calculations for penalties will be made for the yearly data as made available through the REA.

SCHEDULE 4 of the PPA (Revised): ILLUSTRATION FOR PENALTIES APPLICABLE AGAINST SHORTFALL IN POWER SUPPLY (Article 4.4.13 of the PPA)

❖ Assumptions

- Contracted Capacity w.r.t. the Buying Entity (A): 100 MW
- Applicable Tariff for the Project: **Rs. 4.0/kWh**
- Considering 5th Contract Year after commencement of power supply from last part capacity of the Project.
- Power supply profile for a typical month (say April) in the 5th year:

Illustration-1: Calculation of shortfall in meeting min. DFR requirement during Peak Hours and Off-Peak Hours (as per Clause 8.1.a.(i), 8.1.a.(ii), and 8.2.b of the RfS), to be reconciled on monthly basis

Time-block	Power required to be Scheduled (B = DFR x A) (in MW) (DFR@70% for Off-Peak Hours and @90% for Peak Hours)	Power Scheduled by the RPD during a day (C) (in MW)	Shortfall in Power Scheduled [D = max (B-C, 0)] (in MW)
00:00-00:15	90	85	5
00:15-00:30	90	95	0
00:30-00:45	70	85	0
00:45-01:00	70	85	0
…			
08:00–08:15	70	80	0
08:15–08:30	70	80	0
08:30–08:45	90	80	10
08:45–09:00	90	80	10
09:00–09:15	90	85	5
09:15–09:30	90	90	0
09:30–09:45	90	95	0
09:45–10:00	70	90	0
10:00–10:15	70	90	0
10:15–10:30	70	90	0
…			
17:00-17:15	70	85	0
17:15-17:30	70	85	0
17:30-17:45	70	80	0
17:45-18:00	70	80	0
18:00–18:15	90	85	5
18:15–18:30	90	85	5
18:30–18:45	90	90	0
18:45–19:00	90	90	0

19:00–19:15	90	90	0
19:15–19:30	90	90	0
19:30–19:45	90	90	0
19:45–20:00	90	90	0
20:00–20:15	70	90	0
20:15–20:30	70	90	0
20:30–20:45	70	85	0
20:45–21:00	70	85	0
21:00–21:15	90	90	0
21:15–21:30	90	90	0
21:30–21:45	90	90	0
21:45–22:00	90	90	0
…			
Total			**50**
*Sum total of shortfall in Power Scheduled in a day: ∑D = 50 MW, **Considering same situation prevailing for the entire month, total shortfall in Energy in this month = 50 x 30 / 4 = 375 MWh. ***Assuming PPA Tariff of INR 4.0/kWh, Penalty for the above month = (1.5 x 4.0 x 375 x 1000)/10000000= INR 22.50 Lakhs			

Note: The above illustration has been provided for a sample monthly data, based on assumptions as indicated. Actual calculations for penalties will be made for the yearly data as made available through the REA.