SOLAR ENERGY CORPORATION OF INDIA LIMITED
NEW DELHI

Ref No. SECI/C&P/IPP/11/0023/23-24/Amendment-02 Date 04.06.2024

Amendment-02 to RfS for Selection of Solar Power Developers for Setting up of 1200 MW ISTS-Connected Solar PV Power Projects with 600 MW/1200 MWh Energy Storage Systems (ESS) in India under Tariff-Based Competitive Bidding (SECI-ISTS-XV)			
RfS No. SECI/C&P/IPP/11/0023/23-24 dated 16.03.2024			
Sr. No.	**Clause/ Article No.**	**Existing Clause/Article**	**Amended Clause/Article**
Amendments in the RfS document			
1.	Bid Information Sheet (H)	Amount: INR 12,94,000/- (Indian Rupees Twelve Lakhs and Ninety-four Thousand only) per MW per Project to be submitted in the form of Bank Guarantee along with the response to RfS	Amount: INR 12,83,000/- (Indian Rupees Twelve Lakhs and Eight-three Thousand only) per MW per Project to be submitted in the form of Bank Guarantee along with the response to RfS
2.	3.3	The Projects to be selected under this scheme provide for deployment of Solar Photovoltaic Technology. …	The Projects to be selected under this scheme provide for deployment of Solar Photovoltaic Technology, along with Energy Storage System. …
3.	6.1	**Modified as follows:** The Projects shall be located at the locations chosen by the Bidder/SPD at its own discretion of and cost, risk and responsibility. A single Project can be set up at multiple locations with different Delivery Points. The ESS component needs to be co-located with the Project, however, in case of a Project located at multiple locations, the ESS needs to be co-located with at least one of the components. In any case, additional connectivity for solar PV component or ESS component, above the Contracted Capacity, will not be provided. However, Project location(s) should be chosen taking cognizance of the provision as per Clause 7 of the RfS. It is hereby clarified that the sum of rated capacities of individual project components (Solar and ESS) may be greater than the Contracted Capacity but the guaranteed off-take by SECI under this RfS will be limited to Contracted Capacity.	
4.	6.3	**Modified Clause:** The SPDs are free to change the Project location and/or Delivery Point up to the deadline for Financial Closure as per Clause 21 of the RfS. 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, without any condition. b. Subsequent to deadline to apply for connectivity, any change in Delivery Point shall be allowed by SECI only in case the scheduled commissioning date of the ISTS-substation of the proposed revised Delivery Point is on or before the scheduled commissioning date of the existing Delivery Point of the Project, at the time of seeking approval from SECI by the SPD.	

		In this case, the SPD will be required to apply for connectivity at the proposed substation within 7 working days of intimation of approval for the same by SECI. In case the SPD fails to obtain connectivity on account of reasons attributable to it, including but not limited to failure to apply for connectivity within the above deadline, the SPD will not be eligible for corresponding extension in the timelines for meeting the Project milestones and for any relief under change in law provisions, and the same will be borne by the SPD.	
5.	7.5	… Bids indicating substations outside the above three choices will be liable for rejection. It is, however, clarified that selection of Delivery Point by the Bidder at the time of bid submission will not be evaluated with respect to the SCSD of the Project as per the PPA.	… Bids indicating substations outside the above four choices will be liable for rejection. The substation being chosen in line with S.No. i, ii, iii, and iv above, should have a scheduled commissioning date on or before 31st December, 2027. The Bidder is required to provide the proof in this regard at the time of bid submission, as part of Format-7.1 of the RfS.
6.	7.9	In case the ESS component is located separately from the Solar Power generating component of a Project, the charges for charging the ESS, as applicable under GNA regulations and other orders issued by MoP/CERC will be borne by the SPD.	All charges and losses related to discharging the ESS component up to Delivery Point shall be borne by the SPD and the Buying Entity shall bear the applicable charges and losses during discharge of the ESS component beyond Delivery Point.
7.	8.1	The Bidders will declare the annual CUF of the Projects at the time of submission of response to RfS, and the SPDs will be allowed to revise the same once within first year after the commencement of power supply from the full Project Capacity. The revised CUF shall be greater than the CUF initially quoted by the Bidder. Thereafter, the CUF for the Project shall remain unchanged for the entire term of the PPA. The declared/revised annual CUF shall in no case be less than 17%. …	For supply of power in hours other than Peak Hours, the Bidders will declare the annual CUF of the Projects at the time of submission of response to RfS, and the SPDs will be allowed to revise the same once within first year after the commencement of power supply from the full Project Capacity. The revised CUF shall be greater than the CUF initially quoted by the Bidder. Thereafter, the CUF for the Project shall remain unchanged for the entire term of the PPA. The declared/revised annual CUF shall be between 25%-27%. …
8.	8.1	… The SPD is mandated to delivery up to 1000 kWh of energy per MW rated Project capacity of the project in AC terms, during Peak Hours as per the schedule given by the Buying Entity (i.e., For each 100 MW of project capacity, SPD shall supply up to 100,000 kWh of energy during Peak Hours), on a daily basis. Reconciliation of the same shall be carried out	… The Buying Entity shall intimate the hours (which shall be 2 hours during a day) during which it intends to draw the energy from the ESS on daily basis. Buying Entity shall choose the 2 hours such that there is a continuous discharge from the ESS at least for 1 hour. The SPD is mandated to deliver 1000 kWh of energy per MW rated Project capacity of the

		on a monthly basis. … … Any shortfall in supply of Peak Power below the requirement of Buying Entity as per this clause, shall be dealt as per the PPA.	project in AC terms, during Peak Hours as per the schedule given by the Buying Entity (i.e., For each 100 MW of project capacity, SPD shall supply up to 100,000 kWh of energy during Peak Hours), on a daily basis. Reconciliation of the same shall be carried out on a monthly basis. … … Any shortfall in supply of Peak Power below the requirement of Buying Entity as per this clause, shall attract separate penalties and the same shall be dealt as per the PPA. The SPD shall offer power such that 100% of the annual energy offered corresponds to Solar power. The SPD can, however, source up to 5% RE power (in energy terms), on annual basis, from the green market sources/bilateral agreements, towards meeting the supply conditions stipulated in the RfS/PPA. In order to allow optimization of operation of ESS component, the SPD is allowed to use the ESS component for any other application (including market operations such as third party sale or sale in power exchange) within the availability of connectivity, without requiring No Objection Certificate (NOC) from SECI/Buying Entity, during Off-Peak Hours (hours other than Peak Hours). It may be noted that at any instance of energy supply from the Project, priority shall be accorded by SPD to meet the capacity requirements as per PPA, before selling any quantum in the open market. Any instance of third-party sale of power from the Project by the SPD, while the supply commitments under the PPA remains unfulfilled, shall constitute a breach of SPD's obligations under the PPA and render the SPD liable for penalty @1.5 times of extant market rate/kWh (reference rate being the highest of the applicable rates in the DAM/G-DAM/RTM of all the Power Exchanges operating in India on that day) for the quantum of such sale. This penalty will be levied over and above the

			penalty for shortfall in meeting the CUF requirement during hours other than Peak Hours and supply of energy during Peak Hours.
9.	8.2	If for any Contract Year, it is found that the SPD has not been able to supply minimum energy corresponding to the value of annual CUF within the permissible lower limit of CUF declared by the SPD, on account of reasons primarily attributable to the SPD, such shortfall shall be dealt as per the applicable provisions of the PPA.	For supply of power in hours other than Peak Hours, if for any Contract Year, it is found that the SPD has not been able to supply minimum energy corresponding to the value of annual CUF within the permissible lower limit of CUF declared by the SPD, on account of reasons primarily attributable to the SPD, such shortfall shall be dealt as per the applicable provisions of the PPA. Further, shortfall in supply of power during the Peak Hours shall be dealt separately, on a monthly basis, and the same shall also be dealt as per the applicable provisions of PPA.
10.	9	… In line with this regulation, the SPD proposing the Project, or its part, for trial run or repeat of trial run, shall give to SECI and the Buying Entity, a preliminary notice not later than 90 days prior and advance notice not later than 30 days prior to the proposed commissioning date. Further, the SPD shall also give a notice of a period not less than seven (7) days to the concerned RLDC(s), Buying Entity(ies), and SECI. … … The SPD shall be required to obtain NOC from SECI prior to sale of infirm power to any third party prior to declaration of COD.	… In line with this regulation, the SPD proposing the Project, or its part, for commissioning, shall give to SECI and the Buying Entity, a preliminary notice not later than 90 days prior and advance notice not later than 30 days prior to the proposed commissioning date. Further, the SPD shall also give a notice of a period not less than seven (7) days, for trial run or repeat of trial run, to the concerned RLDC(s), Buying Entity(ies), and SECI. … … The SPD shall be required to obtain NOC from SECI prior to sale of infirm power to any third party prior to declaration of COD. However, in case the Buying Entity is ready to offtake that infirm power as per regulations prior to declaration of COD then such infirm power shall be scheduled to the Buying Entity in line with Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023. In case the infirm power is off-taken by Buying Entity, then such power shall be purchased at the Applicable Tariff (as per Article 9.1 of PPA). In case Buying Entity does not consent to purchase such infirm power, the right of refusal shall then vest with SECI.

11.	9.iv.	CEI/CEIG (as applicable) report containing approval for all the components, including Solar PV modules, inverters, …	CEI/CEIG (as applicable) report containing approval for all the components, including Solar PV modules, ESS component(s), inverters, …
12.	9.x.	Invoices against purchase of the Solar PV modules, Inverters/PCUs, …	Invoices against purchase of the Solar PV modules, ESS component(s), Inverters/PCUs, …
13.	9	… However, on the basis of above documents, the SPD shall be required to obtain No-objection certificate (NOC) from SECI prior to declaration of commissioning/COD of the Project. …	… However, on the basis of above documents, the SPD shall be required to obtain No-objection certificate (NOC)/ PPA Compliance Certificate from SECI prior to declaration of commissioning/COD of the Project. …
14.	9.1	Part Commencement of supply of power from the Project shall be accepted by SECI subject to the condition that the minimum capacity for acceptance of first and subsequent part(s) shall be 50 MW (with the last part being the balance Contracted Capacity), without prejudice to the imposition of penalty, in terms of the PPA on the part which has not yet commenced supply of power. …	Part Commencement of supply of power from the Project shall be accepted by SECI subject to the condition that the minimum capacity for acceptance of first and subsequent part(s) shall be 50 MW along with proportionate ESS component (with the last part being the balance Contracted Capacity), without prejudice to the imposition of penalty, in terms of the PPA on the part which has not yet commenced supply of power. For example, in case the Contracted Capacity is 300 MW, then the minimum capacity for acceptance of the first part commencement of power supply shall be 50 MW Solar PV Power Project along with a minimum ESS component of 25 MW/50 MWh. …
15.	9.2.c	In case of delay in commencement of supply of power beyond the SCSD until the date as per Clause 9.2.b above, …	In case of delay in commencement of supply of power beyond the SCSD/ extended SCSD until the date as per Clause 9.2.b above, …
16.	9.2.c	… For example, in case of a Project of 240 MW capacity, if commencement of power supply from 100 MW capacity is delayed by 18 days beyond the SCSD, …	… For example, in case of a Project of 240 MW capacity, if commencement of power supply from 100 MW capacity is delayed by 18 days beyond the SCSD/ extended SCSD, …
17.	10	… Subsequent to grant of connectivity, in case there is a delay in grant/operationalization of GNA by the CTU …	… Subsequent to grant of connectivity, in case there is a delay in Start Date of Connectivity by the CTU …
18.	10.iii	The delay in grant of connectivity/GNA by the CTU and/or …	The delay in Start Date of connectivity/GNA by the CTU and/or …
19.	10	… The above shall be treated as delays beyond the control of the SPD and SCSD for such Projects shall be revised as the date as on 60 days	… The above shall be treated as delays beyond the control of the SPD and SCSD for such Projects shall be revised as the date as on 60 days

		subsequent to the readiness of the Delivery Point and power evacuation infrastructure and/or grant/operationalization of GNA. …	subsequent to the readiness of the Delivery Point and power evacuation infrastructure and Start Date of Connectivity of Project. …
20.	11	… Provided that in case both the Buying Entity and SECI give their acceptance to purchase of power, the Buying Entity will be accorded priority in availing such power. …	… Provided that in case both the Buying Entity and SECI give their acceptance to purchase of power, the Buying Entity will be accorded priority in availing such power. In case the designated Buying Entity does not give its acceptance, then SECI can offtake such power directly or designate another potential buyer/entity to offtake such power. …
21.	11.1	**New Clause:** In case solar PV component is ready for injection of power into the grid, but the corresponding ESS component(s) is unable to commence supply of power, the SPD will be allowed to commence power supply from solar PV component which is ready, outside the ambit of PPA, with first right of refusal for such power being vested with the Buying Entity. Subsequent to refusal of such power by the Buying Entity, the right of refusal shall vest with SECI. In case Buying Entity/SECI decides to buy such discrete component's power outside the PPA, such power shall be purchased @ 50% of the PPA Tariff. Following should be noted under this scenario: In case the Buying Entity procures such power through SECI, trading margin of 7 paise/unit will be applicable on such power procurement. The above scenario does not qualify under the provisions of Part/Early Commencement of power supply under the RfS, PPA and PSA. This is a special scenario wherein in case Solar PV project component(s) is ready, the power supply from such component is not wasted. The above scenario will be applicable until the SPD is ready to commence power supply as per the provisions of Clauses 9 and 11 of the RfS.	
22.	14	… The Projects to be selected under this scheme provide for deployment of Solar Power Technology. …	… The Projects to be selected under this scheme provide for deployment of Solar Power Technology, along with Energy Storage System. …
23.	16	Earnest Money Deposit (EMD) for an amount of **INR 12,94,000/-** (Indian Rupees Twelve Lakhs and Ninety-four Thousand only) per Project …	Earnest Money Deposit (EMD) for an amount of **INR 12,83,000/-** (Indian Rupees Twelve Lakhs and Eighty-three Thousand only) per Project …
24.	17	The Successful Bidder shall submit a Performance Bank Guarantee (PBG) for a value **@ INR 32,35,000/MW/Project** (Indian Rupees Thirty-two Lakhs and Thirty-five Thousand/MW/Project) prior to signing of PPA. …	The Successful Bidder shall submit a Performance Bank Guarantee (PBG) for a value **@ INR 32,07,500/MW/Project** (Indian Rupees Thirty-two Lakhs Seven Thousand and Five Hundred/MW/Project) prior to signing of PPA. …

<table>
<tr><td>25.</td><td>20.1</td><td colspan="2">Addendum to the Clause:

The SPD shall submit a detailed completion Schedule for the Project prior to the signing of PPA. Broad details to be captured in the Schedule are the land procurement, grid connectivity; order, supply and erection status of various Project components; financial arrangement/ tie up etc. The SPD shall also submit the progress report to SECI in a form acceptable to SECI and shall contain percentage completion achieved compared with the planned percentage completion for each activity, and any such other information as required by SECI.</td></tr>
<tr><td>26.</td><td>21.2</td><td>… The SPD shall also submit details of all planned/ proposed solar panels and inverters (manufacturer, model number, datasheet), along with necessary purchase order/agreements for the Project.</td><td>… The SPD shall also submit details of all planned/ proposed solar panels, inverters, ESS (manufacturer, model number, datasheet), along with necessary purchase order/agreements for the Project.</td></tr>
<tr><td>27.</td><td>36.1</td><td>The Net-Worth of the Bidder should be equal to or greater than INR 1,29,40,000/MW (Indian Rupees One Crore Twenty-nine Lakhs and Forty Thousand/MW) of the quoted capacity, …</td><td>The Net-Worth of the Bidder should be equal to or greater than INR 1,28,30,000/MW (Indian Rupees One Crore Twenty-eight Lakhs and Thirty Thousand/MW) of the quoted capacity, …</td></tr>
<tr><td>28.</td><td>36.8</td><td>…
For example, if two companies A and B form a Consortium with equity participation in 70:30 ratio and submit their bid for a capacity of 100 MW, then, total Net-Worth to be met by the Consortium is Rs. 92.80 lakhs x 100MW = Rs. 92.80 Crores. Minimum requirement of Net-Worth to be met by Lead Member A would be minimum Rs. 64.96 Crores and to be met by Consortium Member B would be Rs. 27.84 Crores. Similar methodology shall be followed for computation of liquidity requirement.</td><td>…
For example, if two companies A and B form a Consortium with equity participation in 70:30 ratio and submit their bid for a capacity of 100 MW, then, total Net-Worth to be met by the Consortium is Rs. 128.3 lakhs x 100MW = Rs. 128.3 Crores. Minimum requirement of Net-Worth to be met by Lead Member A would be minimum Rs. 89.81 Crores and to be met by Consortium Member B would be Rs. 38.49 Crores. Similar methodology shall be followed for computation of liquidity requirement.</td></tr>
<tr><td>29.</td><td>40.2</td><td colspan="2">Modified as follows:

The total number of eligible bidders for the reverse auction shall be decided as mentioned below:
Assuming
T = Total Techno-Commercially Qualified Bidders, and
S_k = Cumulative capacity till the ‘k’th serial number bidder (not the ‘k’th rank bidder) after ranking is done in ascending order from L1 onwards
<table><tr><td>S_E =
(Eligible capacity for award)</td><td>(i) In case $S_T \leq 1200$ MW, $S_E = 0.8 \times S_T$
(ii) In case $S_T > 1200$ MW, $S_E = 0.8 \times S_T$ subject to maximum eligible capacity being 1200 MW.</td></tr></table>
Total eligible Bidders for e-Reverse Auction
i. In case $(0.8 \times S_T) \leq 1200$ MW: all the techno-commercially qualified bidders whose financial bids are in line with the RfS provisions, will be shortlisted for e-RA.</td></tr>
</table>

Accordingly, the no. of bidders shortlisted for e-RA, i.e., "n" = "T".

ii. In case (0.8 X S_T) >1200 MW: The lowest ranked bidder, i.e. the bidder quoting the highest tariff (the "H1 bidder") shall be eliminated at this stage, and the remaining techno-commercially qualified bidders whose financial bids are in line with the RfS provisions, will be shortlisted for e-RA.
Accordingly, the no. of bidders shortlisted for e-RA, i.e., "n" = "T"-1

Note:

(a) In case more than one bidder is ranked as "H1" bidder, i.e., such bidders are at the same tariff, all such bidders will be eliminated at this stage.

(b) The above elimination will take place subject to the condition that the total bid capacity after such elimination remains more than 1200 MW and the minimum number of shortlisted bidders for e-RA, after elimination at this stage, remains 3. In the contradictory scenario, no elimination will take place at this stage.

For e.g. (Shortlisting of Bidders for reverse auction):

Scenario-1: Total bid capacity of techno-commercially shortlisted bidders = S_T=2750 MW

S. No.	Techno commercially qualified Bidder	Rank	Capacity (MW)	T	S_E	(0.8x S_T)	n	Shortlisted Bidders
1	B8	L1	600	8	1200 MW	2200 MW	7*	B8
2	B5	L2	300					B5
3	B1	L3	300					B1
4	B4	L3	250					B4
5	B2	L4	300					B2
6	B3	L5	500					B3
7	B7	L6	200					B7
8	B6	L7	300					

* n = 8-1 = 7 as per the above formula.

Scenario-2: Total bid capacity of techno-commercially shortlisted bidders=S_T=1200 MW

S. No.	Techno commercially qualified Bidder	Rank	Capacity (MW)	T	S_E	(0.8x S_T)	n	Shortlisted Bidders
1	B3	L1	600	4	960 MW	960 MW	4*	B3
2	B2	L2	300					B2
3	B1	L3	100					B1
4	B4	L4	200					B4

* n = 4 as per the above formula

30.	43.25	… shall mean a single point at 220 kV or	… shall mean a single point or multiple points

		above, where the power from the Project(s) is injected into …	at 220 kV or above, where the power from the Project(s) is injected into …
31.	43.25	… a single point at 220 kV or above, where the power from the Project(s) is injected into the identified ISTS Substation (including the transmission line connecting the Projects with the substation system) as specified in the RfS document. …	… a single point at 220 kV or above, where the power from the Project(s) is injected into the identified ISTS Substation (including the transmission line connecting the Projects with the substation system) or InSTS/STU substation, in case of intra-state connected Projects, as specified in the RfS document. …
32.	43.44	**"PROJECT" or "SOLAR PV POWER PROJECT" or "POWER PROJECT"** shall mean the renewable energy generation facility owned by the SPD, comprising Solar Power Generating systems, including ESS (which may be leased/tied-up from a third party), having a single point of injection into the grid at Interconnection/Metering point at ISTS/InSTS substation … … It may be noted that the sources of generation and ESS, if any, may be co-located, or may be located at different locations, to be considered a single Project. However, it is clarified that ESS charged using a source other than solar power would not qualify as solar power.	**"PROJECT" or "SOLAR PV POWER PROJECT" or "POWER PROJECT"** shall mean the renewable energy generation facility owned by the SPD, comprising Solar Power Generating systems, including ESS (which may be leased/tied-up from a third party), having a single or multiple point(s) of injection into the grid at Interconnection/Metering point at ISTS/InSTS substation … … It may be noted that the sources of generation and ESS shall be co-located, to be considered a single Project. In case a Project is located at multiple locations, the ESS component shall be required to be co-located with at least one such component. Further, it is clarified that ESS charged using a source other than solar power would not qualify as solar power.
33.	43.62	**New Definition:** **"RENEWABLE ENRGY (RE) POWER"** shall mean power from RE Power Projects (Solar, Wind or any other RE generating source).	
34.	Annexure -E	**New Annexure is enclosed herewith.**	
Amendments in the PPA document			
1.	1.1 "Delivery Point" / "Interconnection Point"	shall mean the point at the voltage level of 220 kV or above of the ISTS Sub-station …	shall mean a single point or multiple points at the voltage level of 220 kV or above of the ISTS Sub-station …
2.	1.1 "Solar Power Project" or "Power	having a separate control system, metering and a single point of injection into the grid at Delivery … …	having a separate control system, metering and a single or multiple point(s) of injection into the grid at Delivery … …

	Project" or "Project"	The ESS component may be co-located with the Solar PV Power generating component, or may be located separately, under a single Project. In case the ESS component is located separately from the Solar PV generating components, the charges for charging the ESS, as applicable under GNA regulations and other orders issued by MoP/CERC will be borne by the SPD. All charges and losses related to discharging the ESS component up to the Delivery Point shall be borne by the SPD. …	The ESS component shall be co-located with the Solar PV Power generating component to be considered a single Project. In case a Project is located at multiple locations, the ESS component shall be required to be co-located with at least one such component. All charges and losses related to discharging the ESS component up to the Delivery Point shall be borne by the SPD and the Buying Entity shall bear the applicable charges and losses during discharge of the ESS component beyond Delivery Point. …
3.	1.1 "RE Power" or "Renewable Energy Power"	**New Definition:** shall refer to power from Solar Power Generating Systems, Wind Power Generating Systems, Wind Solar hybrid or any other renewable energy resource based Generating System or a combination thereof, with or without Energy Storage System (ESS). It is clarified that ESS charged using a source other than RE power would not qualify as RE Power. Further, in the case of charging the ESS from sources other than RE, any financial implications, including but not limited to ISTS charges, shall be borne by the SPD.	
4.	2.3.2	… the event will result in Termination of this Agreement or pro-rata reduction in Contracted Capacity of this Agreement, as the case may be. …	… the event may result in Termination of this Agreement or pro-rata reduction in Contracted Capacity of this Agreement, as the case may be, at the discretion of SECI. …
5.	3.1.2	**Modified as follows:** The above configuration shall be identical to the "installed capacity" for which connectivity has been granted to the SPD under the GNA Regulations. Also, any change in Delivery Point is allowed up to the deadline for Financial Closure as per Article 3.4 of this Agreement. 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, without any condition. b. Subsequent to deadline to apply for connectivity, any change in Delivery Point shall be allowed by SECI only in case the scheduled commissioning date of the ISTS-substation of the proposed revised Delivery Point is on or before the scheduled commissioning date of the existing Delivery Point of the Project, at the time of seeking approval from SECI by the SPD. In this case, the SPD will be required to apply for connectivity at the proposed substation within 7 working days of intimation of approval for the same by SECI. In case the SPD fails to obtain connectivity on account of reasons attributable to it, including	

		but not limited to failure to apply for connectivity within the above deadline, the SPD will not be eligible for corresponding extension in the timelines for meeting the Project milestones and for any relief under change in law provisions, and the same will be borne by the SPD.	
6.	4.1.1.(a)	The SPD shall be solely responsible and make arrangements for land & associated infrastructure for development of the Project and for Connectivity with the ISTS System for …	The SPD shall be solely responsible and make arrangements for land & associated infrastructure for development of the Project and for Connectivity with the ISTS System (connectivity can be taken by SPD, up to the Contracted Capacity, at different Interconnection Points) for …
7.	4.1.1.(l)	The SPD shall fulfil the technical requirements according to criteria mentioned under Annexure B of the RfS–Technical requirement for Grid Connected Solar PV Power Projects. …	For the Solar PV and ESS components, the SPD shall fulfil the technical requirements according to criteria mentioned under Annexure B and Annexure-E of the RfS, respectively. …
8.	4.1.1.(o)	After signing of PPA, the SPD shall apply for drawl NOC(s) from the respective STU(s) of the State(s) as per the power mapping provided by SECI.	Not Used.
9.	4.1.1.(p)	For the Project being implemented under this Agreement, the SPD shall be required to submit the status of Project to SECI as and when requested by SECI, strictly within the timelines provided by SECI. Further, on 5th day of every calendar month, the SPD shall be required to submit the Project status as per Annexure-D of the RfS or the format as desired by Buying Entity.	For the Project being implemented under this Agreement, the SPD shall submit a detailed completion Schedule for the Project prior to the signing of PPA. Broad details to be captured in the Schedule are the land procurement, grid connectivity; order, supply and erection status of various Project components; financial arrangement/ tie up etc. The SPD shall also submit the progress report to SECI in a form acceptable to SECI and shall contain percentage completion achieved compared with the planned percentage completion for each activity, and any such other information as required by SECI. The SPD shall be required to submit the progress status of Project to SECI as and when requested by SECI, strictly within the timelines provided by SECI. Further, on 5th day of every calendar month, the SPD shall be required to submit the Project progress status as per Annexure-D of the RfS or the format as desired by Buying Entity. In case of failure to comply with the same, SECI at its discretion, may or may not consider the SCSD extension request of the SPD.

10.	4.4.1	The CUF declared by the SPD is _____(insert the amount as per SECI's LoA). …	For supply of power in hours other than Peak Hours, the CUF declared by the SPD is _____(insert the amount as per SECI's LoA). …
11.	4.4.1.(a).i.	The SPD is mandated to deliver up to 1000 kWh of energy per MW rated Project capacity of the project in AC terms, during Peak Hours as per the schedule given by the Buying Entity (i.e., For each 100 MW of project capacity, SPD shall supply up to 100,000 kWh of energy during Peak Hours), on a daily basis. Reconciliation of the same shall be carried out on a monthly basis. …	The Buying Entity shall intimate the hours (which shall be 2 hours during a day) during which it intends to draw the energy from the ESS on daily basis. Buying Entity shall choose the 2 hours such that there is a continuous supply at least for 1 hour. The SPD is mandated to deliver 1000 kWh of energy per MW rated Project capacity of the project in AC terms, during Peak Hours as per the schedule given by the Buying Entity (i.e., For each 100 MW of project capacity, SPD shall supply up to 100,000 kWh of energy during Peak Hours), on a daily basis. Reconciliation of the same shall be carried out on a monthly basis. …
12.	4.4.1.(a).iii.	… For each 100 MW of Contracted Capacity, as per the PSA, the Buying Entity may specify off-take of amount of power during the Peak Hours up to 100,000 kWh of energy, on a daily basis.	… For each 100 MW of Contracted Capacity, as per the PSA, the Buying Entity may specify off-take of amount of power during any 2 hours out of the Peak Hours for offtake of 100,000 kWh of energy, on a daily basis.
13.	4.4.1.(a).v	After fulfilling the obligations of assured peak power supply, the ESS may be utilized for any other application by the SPD within the availability of connectivity.	In order to allow optimization of operation of ESS component, the SPD is allowed to use the ESS component for any other application (including market operations such as third party sale or sale in power exchange) within the availability of connectivity, without requiring No Objection Certificate (NOC) from SECI/Buying Entity, during Off-Peak Hours (hours other than Peak Hours). It may be noted that at any instance of energy supply from the Project, priority shall be accorded by SPD to meet the capacity requirements as per PPA, before selling any quantum in the open market. Any instance of third-party sale of power from the Project by the SPD, while the supply commitments under the PPA remains unfulfilled, shall constitute a breach of SPD's obligations under the PPA and render the SPD liable for penalty @1.5 times of extant market rate/kWh (reference rate being the highest of the applicable rates in the DAM/G-

			DAM/RTM of all the Power Exchanges operating in India on that day) for the quantum of such sale. This penalty will be levied over and above the penalty for shortfall in meeting the CUF requirement during hours other than Peak Hours and supply of energy during Peak Hours
14.	4.4.1.(a).vi i.	The Buying Entity shall be required to intimate its choice of Peak Hours and Power requirement in the selected Peak Hours to SECI and SPD on daily basis latest by 06:00 AM of that day, which will be deemed to have been accepted by the SPD for supply of Peak Power. …	The Buying Entity shall be required to intimate its choice of Peak Hours (which shall be 2 hours during a day) and Power requirement in the selected Peak Hours to SECI and SPD on daily basis latest by 06:00 AM of that day, which will be deemed to have been accepted by the SPD for supply of Peak Power. In this regard, it is hereby clarified that the Buying Entity shall choose the 2 hours such that there is a continuous supply at least for 1 hour. …
15.	4.4.1.(b)	… Such shortfall shall be permissible up to 20% below the energy requirement by the Buying Entity during Peak Hours, on a monthly basis. The shortfall beyond 20% will be calculated on a daily basis, and penalty will be levied on the total shortfall aggregated in a month. It is hereby clarified that the penalty on account of shortfall in meeting the minimum energy requirement as per Article 4.4.1 shall be levied annually and the penalty on account of shortfall in supply of energy during shall be calculated on a monthly basis. For example, for the month of April, the SPD was required to supply 3 MUs during Peak Hours and the SPD supplies 2.3 MUs during this month, then the applicable penalty for shortfall in supply during Peak Hours for this month will be Rs. 2.7 Lakhs [=(0.80 x 3 – 2.3) x 2.7] (considering the tariff of Rs. 2.7/kWh). This penalty will be over and above the penalty for shortfall in meeting the minimum annual CUF requirement. In other words, this penalty is independent of the penalty on account of shortfall in meeting the minimum annual CUF requirement.	… Such shortfall shall be permissible up to 30% below the energy requirement by the Buying Entity during Peak Hours, on a monthly basis, and up to 15% below the energy requirement on an annual basis. The monthly shortfall beyond 30% will be calculated on a daily basis, and penalty will be levied on the total shortfall aggregated in a month. For the annual shortfall beyond 15%, penalty will be calculated on annually. In a Contract Year, the higher of these two penalties (monthly shortfall and annual shortfall) shall be applicable, and the remaining penalty amount (based on difference of applicable penalty for that Contract Year and penalty levied for the 11 months in that Contract Year) shall be levied in the last month of the Contract Year. For e.g. If for a Contract Year, the sum of penalties for all the 12 months comes out to be Rs. 2 Lakhs and the penalty for shortfall in annual shortfall comes out to be Rs. 2.2 Lakhs, the applicable penalty for that Contract Year shall be Rs. 2.2 Lakhs. And if the penalty levied on the SPD till 11 months of that Contract Year is Rs. 1.7 Lakhs, the penalty

			imposed in the last month will be Rs. 0.5 Lakhs. The SPD shall offer power such that 100% of the annual energy offered corresponds to Solar power. The SPD can, however, source up to 5% RE power (in energy terms), on annual basis, from the green market sources/bilateral agreements, towards meeting the supply conditions stipulated in this Agreement. It is hereby clarified that for supply of power in hours other than Peak Hours, the penalty on account of shortfall in meeting the minimum energy requirement as per Article 4.4.1 shall be levied annually and for supply of power during the Peak Hours, the penalty on account of shortfall in supply of energy during the Peak Hours shall be calculated on a monthly basis. For example, considering energy supply during Peak Hours for the month of April, the SPD was required to supply 3 MUs during Peak Hours and the SPD supplies 2.3 MUs during this month, then the applicable penalty for shortfall in supply during Peak Hours for this month will be Rs. 4.05 Lakhs [=(0.80 x 3 – 2.3) x 2.7 x 1.5] (considering the tariff of Rs. 2.7/kWh). This penalty will be separate from the penalty for shortfall in meeting the minimum annual CUF requirement, which is applicable for supply of power in hours other than Peak Hours.
16.	4.5.2	Subsequent to grant of connectivity, in case there is a delay in operationalization of GNA by the CTU …	Subsequent to grant of connectivity, in case there is a delay in Start Date of Connectivity by the CTU …
17.	4.5.2.(iii)	The delay in operationalization of GNA and/or delay in readiness of the ISTS substation at the Delivery Point, …	The delay in Start Date of Connectivity and/or delay in readiness of the ISTS substation at the Delivery Point, …
18.	4.5.2	… The above shall be treated as delays beyond the control of the SPD and SCSD for such Projects shall be revised as the date as on 60 days subsequent to the readiness of the Delivery Point and power evacuation infrastructure and/or grant/operationalization of GNA. …	… The above shall be treated as delays beyond the control of the SPD and SCSD for such Projects shall be revised as the date as on 60 days subsequent to the readiness of the Delivery Point and power evacuation infrastructure and/or Start Date of Connectivity. …

19.	4.6.1.(a)	… For example, in case of a Project of 240 MW capacity, if supply of power has commenced of 100 MW capacity is delayed by 18 days beyond the SCSD, …	… For example, in case of a Project of 240 MW capacity, if supply of power has commenced of 100 MW capacity is delayed by 18 days beyond the SCSD/ extended SCSD, …
20.	4.6.2	… In case, the commencement of power supply from the Project is delayed beyond 6 months after the SCSD, …	… In case, the commencement of power supply from the Project is delayed beyond 6 months after the SCSD/ extended SCSD, …
21.	4.6.2.(i)	The Contracted Capacity shall stand reduced / amended to the capacity corresponding to the Project Capacity that has commenced power supply until the date as on 6 months after the SCSD and …	The Contracted Capacity shall stand reduced / amended to the capacity corresponding to the Project Capacity that has commenced power supply until the date as on 6 months after the SCSD/ extended SCSD and …
22.	5.5	… The SPD shall be required to obtain NOC from SECI prior to sale of infirm power to any third party prior to declaration of COD. …	… SECI/Buying Entity reserves first right of refusal on the infirm power generated by SPD and the same may be procured by Buying Entity at Applicable Tariff as per Article 9.1 of the Agreement plus SECI's trading margin. The SPD shall be required to obtain No Objection Certificate (NOC) from SECI prior to sale of infirm power to any third party prior to declaration of Commercial Operation Date (COD). However, in case, the Buying Entity is ready to offtake infirm power prior to declaration of COD then such infirm power shall be scheduled to the Buying Entity in line with Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023. In case Buying Entity does not consent to purchase such infirm power, the right of refusal shall then vest with SECI. …
23.	5.5	… It is clarified that SECI shall bear no responsibility in declaration of commissioning/COD of the Project. However, on the basis of above documents, the SPD shall be required to obtain No-objection certificate (NOC) from SECI prior to declaration of commissioning/COD of the Project. …	… It is clarified that SECI shall bear no responsibility in declaration of commissioning/COD of the Project. However, on the basis of above documents, the SPD shall be required to obtain No-objection certificate (NOC)/ PPA Compliance Certificate from SECI prior to declaration of commissioning/COD of the Project. …
24.	9.2	**Modified as follows:** In case of early part/full commencement of power supply from the project, till SCSD, the SPD will be free to sell the electricity generated, to any entity other than the SECI/ Buying Entity(ies),	

		only after giving the first right of refusal to the SECI/Buying Entity(ies) by giving 15 days advance notice to both SECI and Buying Entity. SECI/Buying Entity shall provide refusal within 15 (fifteen) days from the receipt of the request for early part/full commencement of power supply from the Project, beyond which it would be considered as deemed refusal. Provided that in case both the Buying Entity and SECI give their acceptance to purchase of power, the Buying Entity will be accorded priority in availing such power. In case the designated Buying Entity does not give its acceptance, then SECI can purchase such power directly or designate another potential buyer/entity to purchase such power. In case SECI/Buying Entity agree to purchase power from a date prior to the SCSD, such power shall be purchased at the Applicable Tariff (as per Article 9.1). Any energy produced and flowing into the grid before SCSD shall not be at the cost of SECI.	
25.	9.5	**New Clause:** In case solar PV component is ready for injection of power into the grid, but the corresponding ESS component is unable to commence supply of power, the SPD will be allowed to commence power supply from solar PV component which is ready, outside the ambit of this Agreement. Following should be noted under this scenario: (a) First right of refusal for such power shall vest with the Buying Entity(ies). Subsequent to refusal of such power by the Buying Entity(ies), the right of refusal shall vest with SECI. (b) In case SECI/Buying Entity(ies) decides to buy such discrete component's power outside the PPA, such power shall be purchased at 50% of the Applicable Tariff. In case the same is procured through SECI, trading margin of Rs. 0.07/kWh will be applicable on such power procurement. (c) The above scenario will be applicable until the SPD commences supply of power to the Buying Entity(ies) under the provisions of this Agreement.	
26.	12.1.1	In this Article 12, the term "Change in Law" shall refer to the occurrence of any of the following events pertaining to this Project only after _____ [Enter the date of e-Reverse Auction (e-RA) conducted under the referred RfS], …	In this Article 12, the term "Change in Law" shall refer to the occurrence of any of the following events pertaining to this Project only after _____ [Enter the date of e-Reverse Auction (e-RA) conducted under the referred RfS] and on or before SCSD/extended SCSD, …
Amendments in the PSA document			
1.	1.3	**New Clause:** In case solar PV component is ready for injection of power into the grid, but the corresponding ESS component is unable to commence supply of power, the SPD will be allowed to commence supply of power from such component which is ready outside the ambit of PPA/PSA, with first right of refusal for such power being vested with the Buying Entity. In case the Buying Entity decides to buy such discrete component's power outside the PPA/PSA, such power shall be purchased at 50% of the Applicable Tariff as per Article 1.1 above, for the applicable Contract Year.	

2.	1.4	**New Clause:** As per provisions of PPA & IEGC regulations, SPDs are permitted for scheduling of infirm power during the trial run upto commercial operation. Upon receipt of communication from SECI/SPD regarding start of trial run, Buying Entity shall provide its consent for procurement of infirm power, failing which SPD may be issued NOC prior to sale of infirm power to any third-party prior till declaration of COD.	
3.	2.11.3	… As per the terms of PPA maximum energy is _____MUs. Minimum energy to be supplied till the end of 10 years from the SCSD is _____MUs and ……...Million kWh (MU) for the rest of the Term of the Agreement. The SPD will declare the CUF of the Project and will be allowed to revise the same once within first year after the commencement of power supply from the full Project Capacity. Any penalty with respect to shortfall of energy will be dealt as per the terms of PPA. …	… For supply of power in hours other than Peak Hours, as per the terms of PPA maximum energy is _____MUs. For these hours, Minimum energy to be supplied till the end of 10 years from the SCSD is _____MUs and ……...Million kWh (MU) for the rest of the Term of the Agreement. For supply of power in hours other than Peak Hours, the SPD will declare the CUF of the Project and will be allowed to revise the same once within first year after the commencement of power supply from the full Project Capacity. Any penalty with respect to shortfall of energy during the hours other than Peak Hours will be dealt as per the terms of PPA. …
4.	2.11.3.i	… During these hours, the Buying Entity may choose any number of hours for offtake of power up to 100,000 kWh for each 100 MW of Contracted Capacity, on a daily basis. In this case, the number of hours for complete offtake requirement cannot be less than 2 hours. …	… During the Peak Hours, the Buying Entity may choose any 2 hours for offtake of power up to 100,000 kWh for each 100 MW of Contracted Capacity, on a daily basis. Buying Entity shall choose the 2 hours such that there is a continuous supply at least for 1 hour. …
5.	2.11.3.ii	The Buying Entity shall be required to intimate its choice of Peak Hours and Power requirement in the selected Peak Hours to SECI …	The Buying Entity shall be required to intimate its choice of Peak Hours (which shall be 2 hours) and Power requirement in the selected Peak Hours to SECI …
6.	2.11.3.iii	In addition to the penalty for shortfall in supply of energy corresponding to the minimum annual CUF, for each month, in case of any shortfall in supply of Peak Power as notified by the Buying Entity, from the mandated supply of energy (i.e., up to 100 MWh for each 100 MW capacity), the SPD shall pay a compensation corresponding to the energy shortfall, calculated as 1.5 x PPA Tariff. For the purpose of calculation of shortfall in energy	For shortfall in supply of power during hours other than Peak Hours, the penalty for shortfall in supply of energy corresponding to the minimum annual CUF will be payable by SPD. Further, for shortfall in supply of power during Peak Hours, as notified by the Buying Entity, from the mandated supply of energy (i.e., up to 100 MWh for each 100 MW capacity), the SPD shall pay a compensation corresponding to the

		supplied during Peak Hours, a 'month' shall be the billing month as defined in the PPA. This penalty will be levied over and above the penalty for shortfall in meeting the minimum annual CUF requirement as per this Article. Such shortfall shall be permissible up to 20% below the energy requirement by the Buying Entity during Peak Hours, on a monthly basis. The shortfall beyond 20% will be calculated on a daily basis, and penalty will be levied on the total shortfall aggregated in a month.	energy shortfall, calculated as 1.5 x PPA Tariff, on a monthly basis. For the purpose of calculation of shortfall in energy supplied during Peak Hours, a 'month' shall be the billing month as defined in the PPA. This penalty will be separate from the penalty for shortfall in meeting the minimum annual CUF requirement, which is applicable for supply of power in hours other than Peak Hours, as per this Article. Such shortfall shall be permissible up to 30% below the energy requirement by the Buying Entity during Peak Hours, on a monthly basis, and up to 15% below the energy requirement on an annual basis. The monthly shortfall beyond 30% will be calculated on a daily basis, and penalty will be levied on the total shortfall aggregated in a month. For the annual shortfall beyond 15%, penalty will be calculated on annually. In a Contract Year, the higher of these two penalties (monthly shortfall and annual shortfall) shall be applicable, and the remaining penalty amount (based on difference of applicable penalty for that Contract Year and penalty levied for the 11 months in that Contract Year) shall be levied in the last month of the Contract Year. For e.g. If for a Contract Year, the sum of penalties for all the 12 months comes out to be Rs. 2 Lakhs and the penalty for shortfall in annual shortfall comes out to be Rs. 2.2 Lakhs, the applicable penalty for that Contract Year shall be Rs. 2.2 Lakhs. And if the penalty levied on the SPD till 11 months of that Contract Year is Rs. 1.7 Lakhs, the penalty imposed in the last month will be Rs. 0.5 Lakhs.

SAFETY STANDARDS TO BE FOLLOWED FOR ENERGY STORAGE SYSTEMS (AS APPLICABLE)

Battery Energy Storage Systems (BESS)

Standard/ Code (or equivalent Indian Standards)	Description	Certification Requirements
IEC 62485-2	Safety requirements for secondary batteries and battery installations - to meet requirements on safety aspects associated with the erection, use, inspection, maintenance and disposal: Applicable for Lead Acid and NiCd / NiMH batteries	Applicable only for Lead Acid and NiCd/NiMH batteries
UL 1642 or UL 1973, Appendix E (cell) or IEC 62619 (cell) + IEC 63056 (cell)	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications	Required for Cell
UL 1973 (battery) or (IEC 62619 (battery) + IEC 63056 (battery))	Batteries for Use in Stationary, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications / Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications	Either UL 1642 or UL1973 or (IEC 62619 + IEC 63056) for the Battery level
IEC 62281 / UN 38.3	Safety of primary and secondary lithium cells and batteries during transport: Applicable for storage systems using Lithium Ion chemistries	Required for both Battery and Cell.
IEC 61850/ DNP3	Communications networks and management systems. (BESS control system communication)	
UL 9540 or (IEC TS 62933-5-1 + IEC 62933-5-2)	Electrical energy storage (EES) systems - Part 5-1: Safety considerations for grid-integrated EES systems – General specification / Standard for Energy Storage Systems and Equipment	Either UL9540 or (IEC 62933-5-1 + IEC 62933-5-2) is required for BESS system level
IEC 62933-2-1	Electrical energy storage (EES) systems - Part 2-1: Unit Parameters and testing methods - General Specification	Tests for Class B applications: 1. Duty Cycle Round Trip Efficiency Test 2. Equipment and Basic Function Test 3. Available energy Test 4. Insulation test

Power Conditioning Unit Standards for BESS	
IEC 62477-1	Safety requirements for power electronic converter systems and equipment - Part 1: General
IEC 62477-2	Safety requirements for power electronic converter systems and equipment - Part 2: Power electronic converters from 1000 V AC or 1500 V DC up to 36 kV AC or 54 kV DC
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
IEC 62116 Ed. 2	Utility-interconnected photovoltaic inverters - Test procedure of islanding prevention measures
IEC 60068-2-1:2007	Environmental testing - Part 2-1: Tests - Test A: Cold
IEC 60068-2-2:2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat
IEC 60068-2-14:2009	Environmental testing - Part 2-14: Tests - Test N: Change of temperature
IEC 60068-2-30:2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)

For other technologies being used in ESS, the Developer shall adhere to the relevant environmental and safety standards issued by Government of India from time to time.