

RfS for Setting up of Pilot Projects of 500 MW/ 1000 MWh Standalone Battery Energy Storage Systems in India under Tariff-based Global Competitive Bidding (ESS-I)

(RfS No. SECI/C&P/IPP/15/0001/22-23 dated 13.04.2022)

Solar Energy Corporation of India Limited

(A Government of India Enterprise)

Salient features of the RfS - 500 MW/ 1000 MWh

Standalone BESS Project : 2 Projects of 500 MWh (250 MW x 2 hrs) each.

Projects to be set up on “B-O-O-T” basis for providing Energy storage facility to Procurer for charging and discharging the system on “on-demand” basis.

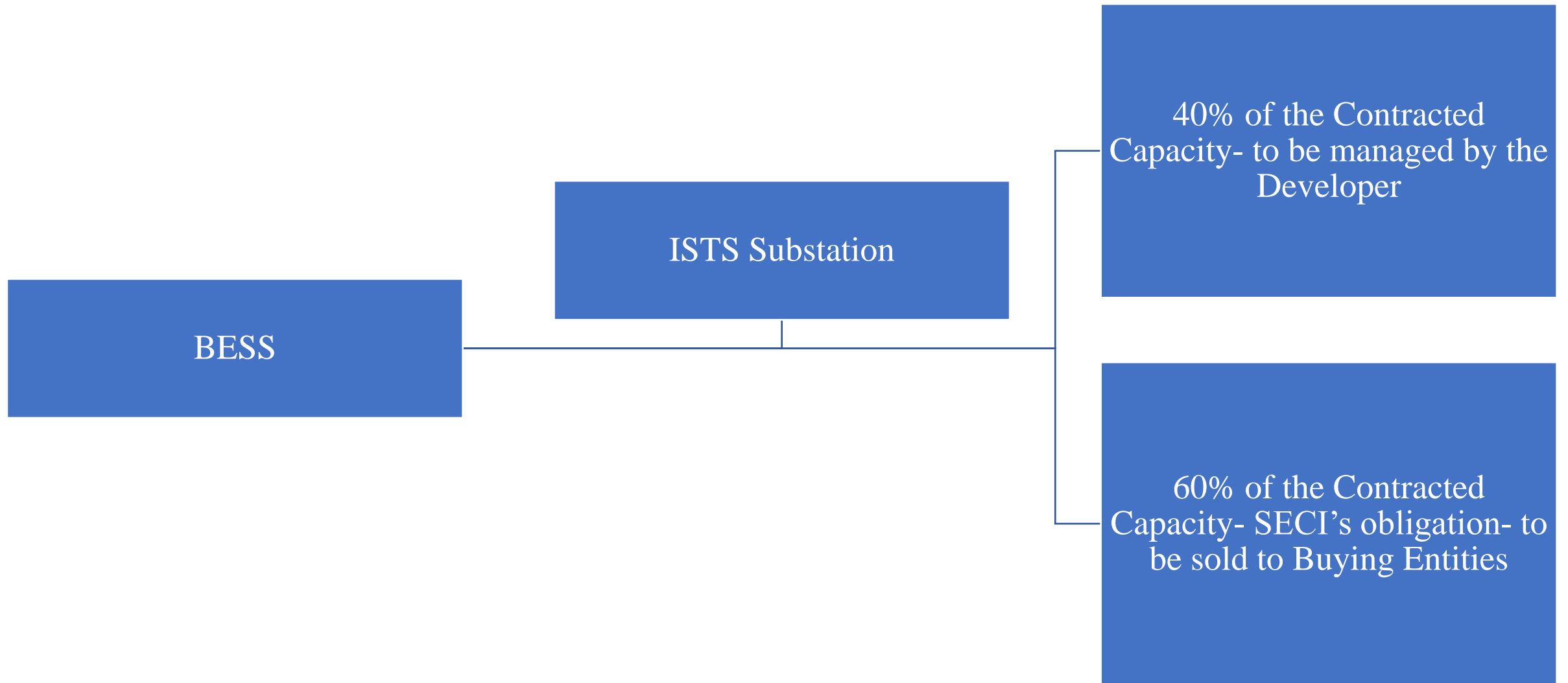
Land will be allocated by the transmission licensee at Fatehgarh-III S/S of ISTS network.
Assured Connectivity to be provided, application under scope of the developer (BESSD)

Both Projects to be set up at the same location, a bidder can quote for either one or both of the Projects.

Bidding to be conducted on a single tariff i.e. capacity charges (INR/MW), payable on monthly basis

SECI shall sign BESPA for utilization of 60% of Project Capacity with payment security

RfS for Procurement of 1000 MWh



Project Performance Criteria

Min. availability of 95% on annual basis. Degradation factored in annual performance, table has been provided in the RfS.

Min. 85% Round-trip efficiency to be maintained.

Charging and discharging schedule to be provided by SECI/Offtaker on a daily basis.
“Resting period” of max. 1 hour to be maintained between two cycles.

BESS to be made available for daily utilization of 2 cycles/day.

Daily operational window to be agreed upon by developer and off taker, taking into account resting period, grid outages, scheduled maintenance

Liquidated damages on account of Shortfall in meeting performance criteria:

Twice the amount payable as capacity charges for the capacity not made available

Qualification Requirements

Companies/AIFs as per Guidelines

Net-Worth/ Asset Under Management (AUM) or Investible Funds:

minimum INR 74 Lakhs/MW (~89415 EUR/MW)* of the quoted capacity in MW

Liquidity: Any one of the following parameters

- **Minimum Annual Turnover:** INR 29 Lakhs/MW (~35041 EUR/MW)*
- **Minimum PBDIT:** INR 5.80 Lakhs/MW (~7008 EUR/MW)*
- **Minimum Line of Credit:** INR 7.25 Lakhs/MW (~8760 EUR/MW)*

EMD (BG/POI): Rs. 7.40 lakh/MW (~8942 EUR/MW)*, PBG/POI: Rs. 11.1 lakh/MW (~13412 EUR/MW)*

Consortium allowed to participate; Parent / Affiliates' strength could be used

*1 INR = 0.012 EUR

Important Timelines

LoAs to be issued within 3 months of issuance of RfS

BESPA to be signed within 90 days of LoA

Financial Closure deadline: 12 months after BESPA

Scheduled Commissioning Date (SCD): 18 months after BESPA, 9 months' LD period

Term of Agreements: 12 years from SCD or full commissioning, whichever is later

Salient Features of the RfS

Category	Provisions of the RfS
Land	<ul style="list-style-type: none">• Layout of the land admeasuring 13 Acres along with coordinates of interconnecting GSS has been provided. No additional land would be provided. However, Bidder at its own risk and cost without interfering with the existing system of POWERGRID can arrange for additional land.• Annual land charge would be INR 1 (~0.012 EUR) (for 13 acres).• Agreement for land shall be provided along with Pre-bid queries.
Project Configuration	<ul style="list-style-type: none">• Power as well as energy rating will have to be ensured / demonstrated by the BESSD as per provisions of the Bidding Documents.• There shall be physical and electrical separation including installation of separate metering system for both 60% and 40% capacity as envisaged• 100% capacity is termed as the Project capacity out of which 60% of the capacity is termed as the Contracted Capacity. BESSD would be required to install system of rated capacity of not less than 250 MW/500 MWh (for a single project) and have to demonstrate a dispatch-able rating of 250MW/500MWh at the Point of Interconnection.

Salient Features of the RfS- Contd.

Category	Provisions of the RfS
Project Configuration	<ul style="list-style-type: none">• Indicative SLD shall be provided along with the clarifications / amendments.• In regard to technology mix for the Project Capacity, BESSD can choose mix of BESS technologies within the project.
LTA & Connectivity	<ul style="list-style-type: none">• BESSD shall be provided assured connectivity as envisaged in RfS documents. However, BESSD will have to make necessary application and payment of fee (if any) within stipulated time period as envisaged in RfS.• Current Project capacity can be accommodated in the Fatehgarh-III substation within whose premise this Project Site is located.• One bay at 220 kV for each Project (250 MW/500 MWh) shall be constructed by the POWERGRID and shall be made available to the BESSD.• Any delay in operationalization of LTA/Grid Access within stipulated time period would entail extension in SCD.
DSM	<ul style="list-style-type: none">• BESSD and DISCOMs shall be responsible for DSM charges separately at their respective ends for both charging and discharging

Salient Features of the RfS- Contd.

Category	Provisions of the RfS
Charging Power	<ul style="list-style-type: none"> Charging Power for Contracted Capacity (i.e. 60% of the Project Capacity) shall be provided by the Buying Entities. For balance 40% capacity, BESSD would have to make arrangement for the charging power. Auxiliary Power shall be provided from the grid on chargeable basis. Also, BESSD can have its own source of generation catering to the auxiliary power requirement of the Project, at its own risk and cost.
Treatment of ISTS Charges	<ul style="list-style-type: none"> ISTS Charges shall be dealt as per extant regulation / orders.
Performance Parameters	<ul style="list-style-type: none"> Illustration for calculation of Availability, Round trip efficiency and capacity degradation have been provided. All auxiliary consumptions shall be to the account of BESSD and the same is excluded from RtE calculations.
Performance Parameters	<ul style="list-style-type: none"> Reactive power (if any) arising out of the Project shall be to the account of the BESSD. There is liquidated damages on account of the performance parameters (availability, RtE and Degradation). Resting period of 1 hr has been envisaged.

Salient Features of the RfS- Contd.

Category	Provisions of the RfS
Off take Guarantee	<ul style="list-style-type: none"> Current offtake bifurcation of 60:40 is with an intent of holistic development of the power sector.
Charging and Discharging Schedule	<ul style="list-style-type: none"> BESSD will have to comply with the Charging and Discharging Schedule as intimated by Buying Entity. Alternation if any in Charging / Discharging Schedule shall be subject to other regulatory provisions and constraints like transmission line capacity etc. Discharge of power from BESS during peak Solar hours (11:00 AM- 2:00 PM) shall be subject to the Grid Constraints.
Charging and Discharging Schedule	<ul style="list-style-type: none"> If required, off-taker may utilize more than 2 cycles a day subject to the maximum of annual cycles being not more than 730 cycles. Max. rating: 100% of Contracted Capacity, Min. rating: 20% of the Contracted Capacity.
Transfer of Projects Asset	<ul style="list-style-type: none"> BESSD will have to transfer entire project asset to SECI or its authorized agency upon completion of term of the BESPA at INR 1 (~0.012 EUR). BESSD will also have to demonstrate residual capacity of 70%. Entire 100 % of the Project Capacity will have to be transferred at the end of the term of the BESPA. BESPA provides for a detailed procedure in regard to the transfer of the Project.
GST Implication	<ul style="list-style-type: none"> Clarity on GST (if any), on account of storage capacity services shall be provided before bid submission.

Thank You