

A-4	101 kWp -500 kWp	20	4500
	Total	290	8400

*Capacity may be interchanged between A-1 to A-4.

Group-B: The size of each GCRT SPV solar power plant (Hybrid) with Battery Bank shall be in the range as given below:

Category	Capacity of GCRT Hybrid Solar Power	Rating of LiFePO4 Battery Bank	Estimated Number of systems	Estimated Capacity	Remarks
B-1	01 kWp (with single Phase PCU)	25.6V (Nominal)/100AH (equivalent to 2560 Wh)	25	25	Battery Bank shall consist of series & parallel combination of LiFePO4 cell of 3.2V (Nominal) and shall have test report from any MNRE/ NABL/BIS/IEC accredited testing center Or from International Laboratory. Battery bank shall also be provided with Battery Management System (BMS). However, Voltage and Ah combination may be changed as per requirement of Inverter/Power Conditioning Unit (PCU) but capacity in Wh shall be equivalent or higher than mentioned against each
B-2	02 kWp (with single Phase PCU)	25.6V (Nominal)/150AH (equivalent to 3840 Wh)	250	500	
B-3	03 kWp (with single Phase PCU)	25.6V (Nominal)/200AH (equivalent to 5120 Wh)	155	465	
B-4	04 kWp (with single Phase PCU)	48V (Nominal)/150AH (equivalent to 7200 Wh)	75	300	
B-5	05 kWp (with single Phase PCU)	96V (Nominal)/100AH (equivalent to 9600 Wh)	67	335	
B-6	7.5 kWp (with single Phase PCU)	96V (Nominal)/150AH (equivalent to 14400 Wh)	30	225	
B-7	10 kWp (with single Phase PCU)	96V (Nominal)/200AH (equivalent to 19200 Wh)	15	150	
	TOTAL		617	2000	

*Capacity may be interchanged between B-1 to B-7.

B.2 THE SCOPE OF WORK SHALL ALSO INCLUDE THE FOLLOWINGS:

- The bidder can bid for complete capacity under Group-A or Group-B or Both Group-A & Group-B. Bids for partial capacity of a single group will not be accepted.

- b. Detailed planning of time bound smooth execution of Project;
- c. The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
- d. Supplier shall be responsible for delivering all the equipment at site under his own arrangement within the stipulated time frame.
- e. The goods supplied under the contract shall be fully insured against loss or damage incidental to manufacture of acquisition, transportation and delivery to site by the supplier at his own cost. Once the material has been supplied at the user site, the storage facility (with lock & key arrangement for the supplier) may be provided by user department/organisation for 15 days only, as it is assumed that within 15 day the systems will be installed.
- f. Performance testing of the complete Project;
- g. After sales service through service center(s);
- h. Coverage of risk liability of all personnel associated with implementation and realization of the Project;
- i. Training of at least one person each to be nominated by user at every location, on the various aspects of design and maintenance of the Project after Commissioning of the Project.
- j. The Successful Bidder shall maintain sufficient inventory of the spare parts to ensure that the Project is functional during the period of warranty period.
- k. The Successful Bidder shall run the Project on trial basis and shall closely monitor the performance of the Project before handing over the same..
- l. Comprehensive maintenance of the Project at every location, from the date of the Commissioning of Project has to be carried out by the Successful Bidder.
- m. Supervision of the on-site assembly and/or start-up of the supplied Goods.
- n. Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied Goods;
- o. Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract;
- p. SAFETY MEASURES: The bidder shall take entire responsibility for electrical safety of the installation(s) including connectivity with the grid and follow all the safety rules & regulations applicable as per Electricity Act, 2003 and CEA guidelines etc.

The detailed technical specifications/description of the above stores are available at Annexure-I & II of this document.

C. Specific Terms & Condition/ Eligibility Criteria related to above Store:

1. Technical Eligibility Criteria:

- a. The Bidder should be either a body incorporated in India under the Companies Act, 1956 or 2013 including any amendment thereto or proprietary/partnership/LLP firm. A copy of certificate of incorporation shall be furnished along with the bid in support of above.
 - (i) The bidder should have also a valid ISO 9001:2015 Certificate issued from any NABCB accredited certification body in the field of quoted item and copy of valid ISO 9001:2015 Certificate must be attached with offer.
- b. **Group-A:** For GCRT Solar Power Plant without Battery Bank:

The bidder should be a manufacturer of solar modules/solar cells or System Integrator. The System Integrator has to submit the undertaking (in Performa-VIII) issued by each manufacturer of major parts/devices (solar modules/inverter) with whom they have tie up mentioning that in case System Integrator defaults, at any stage of execution of warrantee/guarantee/CMC and after sale service of the said device, installed in reference to rate contract of the said tender, then the Company will be responsible to execute the warrantee/guarantee/CMC of the said device at site of installation as per the terms and conditions of rate contract/DNIT of the above tender and will adhere the directions of the New & Renewable Energy Department/HAREDA directly.

Group-B: For GCRT Solar Power Plant with Battery Bank:

The bidder should be a manufacturer of solar modules/solar cells/battery or System Integrator. The System Integrator has to submit the undertaking (in Performa-VIII) issued by each manufacturer of major parts/devices (solar modules/inverter/battery) with whom they have tie up mentioning that in case System Integrator defaults, at any stage of execution of warrantee/guarantee/CMC and after sale service of the said device, installed in reference to rate contract of the said tender, then the Company will be responsible to execute the warrantee/guarantee/CMC of the said device at site of installation as per the terms and conditions of rate contract/DNIT of the above tender and will adhere the directions of the New & Renewable Energy Department/HAREDA directly.

- c. Domestically manufactured PV Module with domestically manufactured solar PV cells should be used. The PV modules should be made up of crystalline silicon solar cells and must have BIS certificate for IS 14286 & IS 61730 (Part-I, Part II). PV modules must meet the latest specifications of MNRE and the models and Manufacturers of PV Modules shall be included in the List of Models and Manufacturers for Solar PV Modules empenelled by MNRE as per its ALMM order (and shall also be valid at the time of supply of material) from time to time, while the inverters/PCU/micro inverters/Battery bank should be tested from the MNRE approved test centres/ NABL/ BIS/ IEC accredited/authorised testing- calibration laboratories. In case of imported inverter/micro inverter/power conditioning units, these should be approved by international test houses. However, if there are any instructions of MNRE regarding of the approval of inverter/micro inverter/Power Conditioning Unit, then the inverter/micro inverter /PCU/battery bank shall be as per latest specification as per instructions/guidelines of MNRE applicable at the time of submission of bid and also at the time of supply.

To bring contractual clarity, Bidders has to give explicit declaration that they are aware of binding provisions of the ALMM Order and the List(s) thereunder, while quoting the rates in the bid.

- (i) *The bidder has to submit the test reports of Solar PV Modules/Inverters/PCU/ Micro inverters/battery bank with the tender.*
- (ii) *If the Manufacturers of PV Modules has applied to MNRE for including their models and name in the List of Models and Manufacturers for Solar*