



**BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED**  
**(Wholly owned by Government of Karnataka Undertaking)**

**Tender Enquiry No: BESCOM/GMDSM/SRTPVRES/2019-20**

**SHORT TERM E-TENDER NOTIFICATION**  
**(Through e-Procurement system only)**

**“Expression of Interest for Empanelment of Agencies for Design, Supply, Installation & Commissioning of Solar RTPV Grid connected power plants aggregating 30MW on the Roof-tops of Residential buildings & Group Housing Societies (GHS)/Residential Welfare Associations (RWA) in the jurisdiction of BESCOM under Net Metering scheme including Annual Maintenance Contract for a period of Five years- under SOURA GRUHA YOJANE (SGY)”**

**Volume I**

**Section-I**

**INVITATION TO BIDDERS**

## 1.0 PREAMBLE:

- 1.1** Ministry of New & Renewable Energy (MNRE), GoI vide order dated 08.03.2019 has launched phase-II grid connected Solar Roof top program for achieving cumulative capacity of 40GW from Rooftop Solar Projects by the year 2022. The phase II, is implemented by making DISCOMs and its local offices as the nodal points for implementation of the Rooftop Solar (RTS) program. DISCOMs will play a key role in expansion of RTS as DISCOMS are having a direct contact with end user and provide approval for installation, manage the distribution network and also have billing interface with rooftop owner.
- 1.2 Aim and objective** of Phase-II Grid Connected Rooftop Solar Programme are:
- To promote grid connected RTS in residential and Group Housing Societies(GHS)/Residential Welfare Association(RWA).
  - To bring DISCOMs at forefront as key driver for rapid deployment of RTS.
  - To create awareness, capacity building, human resource development etc.,
  - To promote sustainable business models.
  - To create additional RTS 4000 MW in Residential sector with Central Financial Assistance(CFA).
  - To promote domestic manufacturing of solar cells and modules.
- 1.3** The Ministry of New and Renewable Energy, Government of India vide O.M No.318/331/2017 dated 20.08.2019 has issued operational guidelines for implementation of Phase-II grid connected Rooftop Solar programme for achieving cumulative capacity of 40GW by the year 2022. Under this programme, **Component A** is setting up of 4000MW of grid connected Rooftop plants in residential sector with Central Financial Assistance (CFA).

The CFA pattern for the Residential sector is as follows:

Type of Residential sector	CFA ( as percentage of bench mark cost or cost discovered through competitive process whichever is lower)
Residential sector (Maximum upto 3kW capacity)	40% of bench mark cost **
Residential sector (above 3kW capacity and upto 10kW capacity)	40% upto 3kW Plus 20% for RTS system above 3kW and upto 10kW
Group Housing Societies/ Residential Welfare Associations (GHS/RWA) etc for common facilities up to 500 kWp @ 10kWp per house), with the upper limit being inclusive of individual rooftop plants already installed by individual residents in that GHS/RWA at the time of installation of RTS for common activity	20%

\* The Residential sector users may install RTS plant of even higher capacity as provisioned by respective State Electricity Regulations, however, the CFA will be limited upto 10kWp capacity of RTS plant.

\*\* The Benchmark cost may be different in General Category States/UTs/Special category States/UTs. CFA shall be on benchmark

cost of MNRE for the state/UT or lowest of the costs discovered in the tenders for the state/UT, whichever is lower.

- 1.4** MNRE vide notification no: 318/33/2019-grid Connected Rooftop dated 16.07.2019 have given the benchmark costs for Grid Connected rooftop Solar Roof Top Plants for the year 2019-20 which is as below

Sl. No	Capacity	Benchmark Cost (Rs/kWp)
1	Above 1kW and upto 10kW	54,000/-
2	Above 10kW and upto 100kW	48,000/-
3	Above 100kW and upto 500kW	45,000/-

The above benchmark costs are inclusive of total system cost and its installation, commissioning, transportation, insurance, five year AMC/CMC and applicable fees and taxes.

In the event that the discovered lowest price is higher than the benchmark cost of the MNRE in such case the benchmark cost shall be treated as lowest price.

#### **1.5 PATTERN OF RELEASE OF CFA BY MNRE TO BESCOM**

	Advance	2 <sup>nd</sup> Instalment	3 <sup>rd</sup> Instalment
Release of CFA in residential sector	30% of CFA * after issuance of work order /empanelment of system integrators	30% of CFA*after completion of 30% of sanctioned capacity, submission of online project completion report and utilization certificates etc.,	Balance 40% after completion of sanctioned capacity in the sanctioned timeline, submission of online PCR, UC, audited SoE, Project Completion Certificates etc.,

\*CFA will be calculated @ 20% of benchmark cost or cost discovered through tender whichever is lower for the purpose of advance to DISCOMs.

#### **2.0 SCOPE OF WORK:**

- 2.1** Survey of the site for its solar roof top capacity considering the shadow free space for the shortlisted consumers furnished to successful bidders.
- 2.2** Preparation of Detailed Project Report (DPR) of the proposed SRTPV plant for all the capacities as prescribed by BESCOM.
- 2.3** Design, Supply, Installation, Metering, Testing and Commissioning of Solar RTPV grid connected plant as per the technical specifications notified by MNRE/GoK/KERC/BESCOM and any other applicable laws including but not limited to regulations notified by Karnataka Electricity Regulatory Commission (KERC).
- 2.4** Transportation of materials to Site, unloading at site, handling, storage, associated civil works, services, permits (material related), insurance at all stages, construction, erection, installation, testing

- (pre-grid and post grid), commissioning, performance testing, trial run, training to Consumer / BESCOM nominated representatives.
- 2.5 Execution of Tripartite Agreement (TPA) between BESCOM, Consumer and successful bidder for EPC purposes.
  - 2.6 Execution of a Power Purchase Agreement (PPA) in the Commission approved standard format on net metering basis between Consumer & BESCOM.
  - 2.7 Performance testing of the complete system.
  - 2.8 Submission of Work Completion Report along with drawings and test reports of all the equipments.
  - 2.9 Risk liability of all personnel associated with installation, testing and commissioning of the project and AMC period of 5yrs.
  - 2.10 Training on the various aspects of maintenance of the system after commissioning for the consumer.
  - 2.11 A technical Person should be there to supervise the SRTPV plants.
  - 2.12 Entering into Annual Maintenance Contract (AMC) with consumers for 5 years.
  - 2.13 Establishing "Service Centres" and "Call Centres" in the concerned area.

### 3.0 PRICES:

- 3.1 The Bidders shall quote price @ Rs/kWp (kilo Watt peak) for the system capacities lower to the benchmark cost as detailed below

**Table:A**

Category	Capacity	Benchmark Cost (Rs/kWp)
Category-1	1kW to 3kW	54,000/-
Category- 2	>3kW to 10kW	54,000/-
Category -3	>10kW to 100kW	48,000/-
Category- 4	>100kW to 500kW	45,000/-

The quoted price shall be inclusive of total system cost, its installation, commissioning, transportation, insurance, five years AMC and applicable fees, connectivity charges, meter testing fee, cost of Bi-Directional Meter & SMC box, Remote Monitoring System cost etc., including GST and all applicable taxes and duties.

Note: **The evacuation of energy from SRTPV plants shall abide by KER C SRTPV Regulations-2016. For SRTPV plants above 50kWp, the infrastructure charges has to be borne by respective SRTPV consumers.**

- 3.2 The Bidders shall mandatorily quote price @ Rs/kWp for all the four categories lower to the benchmark cost as detailed in the Table 'A' or else shall be liable for rejection.
- 3.3 The price shall remain **FIRM** and shall be binding on the successful bidder till the completion of work and no price adjustment shall be applicable for the entire duration of the project.
- 3.4 The price shall be on F.O.R destination at consumers' premises basis. Price shall be inclusive of taxes, levies, duties, packing, forwarding, freight, insurance, loading, unloading, supply,

installation, commissioning, meter charges, meter testing fee, SMC Box charge, Remote Monitoring System cost, connectivity charges, 5 years AMC cost etc., and any other charges for successful supply and installation of the systems at any locations in the jurisdiction of BESCOM and all other miscellaneous expenses of marketing, commissions etc., if any.

#### **4.0 Submission of Bid documents:**

##### **4.1 Availability of Bid documents.**

Bidder can download the Bid documents from e-procurement portal from **16.03.2020, 16.00 hrs.**

##### **4.2 Submission of Bid documents**

**4.2.1** Bid should be submitted in two parts namely:

**Part-I: Techno-commercial Bid** shall contain full technical particulars and commercial terms and conditions. (Structure of the technical bids has been defined under clause-5.0).

**Part-II: Price Bid:** Price shall remain binding on the Bidder(s) throughout the contract period and in the event that the discovered lowest price is higher than the benchmark cost of the MNRE in such case the benchmark cost shall be treated as lowest price. Any alteration in the rates etc., will not be allowed on any ground, such as mistake, misunderstanding etc., after the Bid has being submitted (Structure of the price bids has been defined in price sheet).

**4.2.2** All the Bid documents shall be submitted through e-procurement portal on or before **15.04.2020 upto 16.15 hrs.**

##### **4.3 Opening of Bid:**

The Techno-Commercial Bid will be opened on **17.04.2020, 16.05 hrs** as mentioned in the e-procurement portal. However, Price Bids of Techno-Commercially responsive Bidders will be opened in e-procurement portal after completion of Techno-Commercial evaluation. Separate intimation regarding date of opening of Price Bid will not be issued.

##### **4.4 Instructions to Bidders**

- The Bid shall be uploaded through **e-procurement portal only** on or before the last date and time for submission of the Bid.
- E-procurement portal automatically locks the tender after the last date and time of receipt of tenders as mentioned in the e-procurement portal.
- The Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the

Bidder, in which case such corrections shall be initialled by the person or persons signing the Bid.

- All the documents in support of qualifying requirements shall be scanned and uploaded in the e-procurement portal. Failure to furnish the documentary evidences/supports electronically would result in outright rejection of their offers.
- The Bid submitted through e-procurement mode **without payment of EMD** will be treated as disqualified.

#### 4.5 Modification/withdrawal of Bids

The Bidder may modify or withdraw the Bid after the submission of Bid, but prior to the deadline prescribed for submission of Bid.

#### 4.6 Evaluation of Bid

##### 4.6.1 Technical Evaluation

The Techno-Commercial Bid will be evaluated as per Pre-Qualifying Requirements and only the Price Bids of **responsive** Techno-Commercial Bidder(s) will be opened.

##### 4.6.2 Financial Evaluation

- The bidders shall quote the price as per **clause 3.0 of ITB of Volume-1, Section-I**.
- The Bidders shall mandatorily quote price @ Rs/kWp for all the four categories as per clause 3.0 of Volume-1, Section-I.
- L1 bidder shall be determined who quotes lowest for each of the category.
- Further, area wise and capacity target will be assigned to the successful Bidder at the discretion of BESCOM.
- The work awards will be issued to L1 bidder for all categories only if he matches L1 rates quoted by the other L1 bidders in all other categories or at discretion of BESCOM.

Eg:

Category	Capacity	Benchmark Cost (Rs/kWp)	L1 Bidder	Quoted Rates of L1(Rs/kWp)
Category-1	1kW to 3kW	54,000/-	X	42,000/-
Category-2	>3kW to 10kW	54,000/-	Y	41,000/-
Category-3	>10kW to 100kW	48,000/-	Z	38,000/-
Category-4	>100kW to 500kW	45,000/-	A	35,000/-

The work award for all the categories will be issued to 'X' only if he matches and agrees to execute the work for L1 rates quoted by other L1 bidders in other categories.

- All the Bidders within the price bracket of (L1+X% of L1) shall be empanelled where the value of 'X' is 20 provided they match L1.
- Further, if total no. of empanelled agencies are found to be less than 5 in the acceptable band, then those agencies who fall in L1+(X+5)% of L1 where the value of 'X' is 20 shall be empanelled provided they match L1.

## 5.0 Pre-Qualifying Requirements (PQR) of Bidder

	Particulars	Documents Requirement
	<b>TECHNICAL CRITERIA:</b>	
1	The <b>Lead Bidder</b> and their <b>Consortium Partner</b> shall have their company <b>Registered</b> under the <b>Company Act-1956</b> & shall be in existence for a minimum of <b>3 years</b> .	Company Registration certificate registered under Company Act – 1956 shall be uploaded
2	The <b>Lead Bidder</b> shall be either a <b>System Integrator</b> or a <b>module manufacturer or both</b>	A System Integrator shall upload Registration certificate of the company /firm issued by any State/ Central Government or equivalent certificate issued by competent authority or A Module manufacturer shall upload the Registration certificate for Manufacturing of PV Module issued by any State/ Central Government
3	The <b>Lead Bidder</b> shall be registered under MSME or NSIC	Relevant Certificate/document shall be uploaded
4	The <b>Lead Bidder</b> shall have experience for having successfully completed the works of ON-Grid connected Solar Roof Top PV projects as below a. <b>Minimum 30%</b> of the capacity put to Tender b. <b>Minimum 5 Nos. of separate works of each 1 MW each</b> shall have been carried out in BESCOM jurisdiction The work shall be carried out in any State/Central Government/Public Sector under takings/Private Sector.	<ul style="list-style-type: none"> <li>• The copies of Work Awards/PO's shall be uploaded</li> <li>• Work completion certificates issued by an officer not below the rank of Executive Engineer or Equivalent rank not older than 6 months, shall be uploaded</li> <li>• The Performance certificate for continuous two-year satisfactory functioning issued by an officer not below the rank of Executive Engineer or Equivalent rank</li> <li>• The Performance certificate shall not be older than 6 months from the date of submission of bid.</li> </ul>
5	The <b>Lead Bidder</b> shall possess <b>Class I Electrical Contractor License</b> issued by Chief Electrical Inspectorate, Government of Karnataka	Copy of the license shall be uploaded



6	The <b>Lead Bidder</b> shall have experience in <b>Operation and Maintenance</b> of Solar Roof Top Projects completed in State/ Central Government / Public sector under takings / Private Sector, for a <b>minimum period of 1 year for 25% of capacity put to tender</b>	Copy of the Agreement executed between the System Integrator and SRTPV owner of Solar Roof Top Projects completed in State/ Central Government / Public sector under takings/Private Sector for carrying out Operation and maintenance of SRTPV Plant shall be uploaded
7	The <b>Lead Bidder</b> shall not have been <b>defaulted</b> against any Work/Service against any of the previous Orders placed by any State / Central Government/Public sector under takings/ Private Sector as on the date of submission of bid.	The self-declaration shall be uploaded
8	The <b>Lead Bidder</b> shall not have been <b>black listed</b> by any State / Central Government / Public sector under takings/ Private Sector as on the date of submission of bid	The self-declaration shall be uploaded
<b>FINANCIAL CRITERIA:</b>		
1	The <b>Annual turnover of Lead Bidder and Consortium partner together</b> shall not be less than <b>50% of the Amount put to tender in any one of the preceding</b> three financial years 2016-17, 2017-18 and 2018-19	Audited Annual Reports of Balance Sheet and Profit & Loss accounts for the last three years (i.e., 2016-17, 2017-18 and 2018-19) shall be uploaded.
2	The <b>Liquid assets of the Lead Bidder and Consortium partner together</b> consisting of <b>cash at bank + term deposits + availability of fund based credit facility</b> in any Nationalized Scheduled Bank as on <b>29.02.2020</b> or at a later date shall not be less than <b>25% of the amount put to tender</b>	Availability of cash at bank, term deposit and availability Fund based credit facility shall be supported by a certificate issued by any Nationalized Scheduled Bank shall be uploaded.

## 6.0 Requirements of the Bidders:

- 6.1** Proposals can be submitted by an individual company or consortium of companies as one of the following:
- An Individual company
  - A consortium limited to a maximum of two constituents including the lead bidder.
  - The consortium can be between two companies located in India.
- 6.2** The bidder forming a consortium must satisfy the pre-qualification criteria.
- 6.3** The bid shall be signed by both the members of the consortium so as to legally bind jointly. A copy of the consortium agreement on non-judicial INR 200/- stamp paper satisfying the above conditions shall be submitted.
- 6.4** A Consortium partner shall not be a partner to more than one bidder in this tendering process. In that case, both or all such offers will be rejected. In case a Lead Bidder becomes a Consortium partner of another bidder in the same tendering process in both, such offers will also be rejected.



- 6.5** The partners of a consortium are not allowed to bid individually.
- 6.6** The designated Lead Bidder of the consortium shall be in-charge of the project. He shall have due authorization with a power of attorney on non-judicial stamp paper of INR.200/-and shall be submitted along with the bid from the consortium members. The Lead Bidder shall be authorized to incur liabilities and receive instructions for and on behalf of both consortium partners for the entire execution of the job and dealing shall be done exclusively with the lead Bidder in-charge of consortium. He shall also be authorized to receive payments on behalf of both the members.
- 6.7** In case of successful bidder, the agreement shall be signed by the Lead Member and shall be legally binding on the other member of the consortium. Both the members of the consortium shall, however, be liable jointly for execution of the job and fulfilling the terms and conditions of the agreement.
- 6.8** The partners of the consortium shall be liable jointly for the execution of the contract in accordance to the contract terms and a statement to this effect shall be included in the authorization mentioned above as well as in the Bid and in the agreement (in case of successful bid). The consortium agreement should indicate precisely the role of the members of the consortium in respect of the contract.
- 6.9** This section covers the minimum requirements with respect to experience, capability and other particulars of the Bidder to be considered eligible for participation in the bid for the proposed work. The bidder shall become eligible to bid on satisfying the essential “qualifying requirements” and on uploading of the required documentary evidences along with the Tender.
- 6.10** System Integrator means a company/firm which can acts as an Engineering, Procurement and Construction (EPC) contractor for Solar PV power plants.

## **7.0 GENERAL IMPORTANT CONDITIONS:**

- 7.1** The Bidder shall deploy crystalline silicon based solar photovoltaic technology (including all forms of photovoltaic) based RTS projects for generation of electricity and the project proponents to adhere to the national/international standards specified by MNRE from time to time.
- 7.2** All equipments such as SPV modules, inverters, meters, cables, mounting structures and other balance of systems etc., shall meet technical requirements and quality standards as prescribed by MNRE and BESCOM for time to time.
- 7.3** The mechanical structures, electrical works including power conditioners/inverters/charge controllers/maximum power point tracker units/distribution boards/digital meters/switch gears/Bi-directional meters/cables and overall workmanship of the RTS plants/systems must be warranted against manufacturing/design/installation defects during the AMC period.

- 7.4** The Bidder should use only **indigenously manufactured PV panels (both cells and modules manufactured in India)** for the said project.
- 7.5** The Bidder shall install grid tied inverters and meters empanelled in BESCOM.
- 7.6** The Bidder shall install RTS plant within the timeframe decided by BESCOM.
- 7.7** The Bidder shall establish a service centre in each District. In case if it is not economically viable for an individual vendor, then group of empanelled vendors can establish a service centre in each District. Their contact details shall be made available on the website of BESCOM.
- 7.8** The service centres have to provide services to the RTS owners within the timelines decided by BESCOM. Non performing/under performing PV panels shall be replaced free of cost during the AMC period. Non-compliance of the service standards by the vendor will attract penalty and such vendors are not eligible for future work orders.
- 7.9** The successful bidders shall be responsible to co-ordinate with BESCOM or the consumer for obtaining the necessary approvals for commissioning and Grid connectivity of the Solar RTPV plant.
- 7.10** The SRTPV plant installations shall be implemented as per Solar Rooftop Photovoltaic Power plants Regulations, 2016 and Generic tariff orders issued by the Commission from time to time.
- 7.11** BESCOM reserves the right to award/reject the work at any stage of tender without giving reason whatsoever to the bidder.
- 7.12** In the event of the information furnished by the Bidder is found to be false at any stage, BESCOM reserves right to take action against such Bidders and may result in forfeiture of the Bid security deposit, disqualify and black list the firm.
- 7.13** Any bid submitted in response to the tender shall confirm absolutely to the tender specifications and other conditions. Any deviation whatsoever wherever mentioned will make the bid liable for rejection.
- 7.14** BESCOM reserves the right to disqualify the bid if the deviation mentioned by the bidder is not acceptable to BESCOM.
- 7.15** In the event of the information furnished by Bidder is found to be false during the execution stage, then BESCOM is at liberty to take action as follows:-
- Cancel the works awarded.
  - Withhold the performance guarantee executed against the contract.
  - Blacklist the firm and impose liquidated damages.
- 7.16** Necessary documentary evidence for fulfilling the qualifying requirements shall be uploaded along with the bid. Not submission of the documents shall lead to rejection of the bid.

- 7.17** The Bidders shall furnish the ESI and EPF Code Nos. Depositing of EPF and ESI as applicable is the responsibility of the Contractor at his own expenses and shall not be reimbursed by BESCOM.
- 7.18** BESCOM will not be responsible for not getting internet connection while downloading the Electronic Bid sheets/documents or while uploading their offers.
- 7.19** In case the uploaded bid documents could not be opened/not visible at the time of opening of Techno-commercial bids, such bids are liable for rejection.

## **8.0 Two part bids:**

Bid should be submitted in two parts namely: -

**Part-I: Techno-commercial Bid-** containing full technical particulars and commercial terms and conditions (Structure of the technical bids has been defined in the Volume III Section-I.

**Part-II: Price Bid-** Price shall remain binding on the bidder throughout the contract period. Any alteration in the rates etc., will not be allowed on any ground, such as mistake, misunderstanding etc., after the Bid has been submitted. (Structure of the price bids has been defined in Volume III Section-II)

- 9.0** Bidding Documents are non-transferable. The issuance of the bidding documents, however, shall not automatically mean that such firm fulfills/meets the qualifying requirements.

- 10.0** The bidding document comprises the following:

### **Volume-I: Commercial Requirements:**

<b>Section</b>	<b>Description</b>
NIT	Notice Inviting Tender
I	Invitation to bidders
II	Scope of Work
III	Bidding documents
IV	General terms and Conditions of Contract
V	Erection conditions of contract
VI	Annexures

### **Volume-II: Technical Requirements:**

<b>Section</b>	<b>Description</b>
I	Technical Specifications

### **Volume-III: Bid proposal sheets:**

<b>Section</b>	<b>Description</b>
I	Techno-commercial sheets
II	Price sheet

**11.0 Bid Schedule:** The calendar of events for the tender is listed below:

<b>Calendar of Events</b>		
I	Short term Tender Enquiry No.	<b>BESCOM/GMDSM/SRTPVRES/2019-20</b>
II	Bid document availability	16.03.2020 @ 16:00 Hrs.
III	Pre-Bid meeting	26.03.2020 @ 15.00 Hrs Venue: 3 <sup>rd</sup> Floor, Conference Hall, Belaku Bhavan, Corporate Office, BESCOM
IV	Date & Time for Tender <b>Queries/Clarifications</b>	26.03.2020 upto 16.00 Hrs
V	Last Date & Time for receipt of tenders	15.04.2020 upto 16.15 Hrs
VI	Date & Time for Opening of Techno-commercial Bid	17.04.2020 @ 16.05 Hrs
VII	Date & Time for Opening of Price Bid	Price bids of Techno commercially response bidders will be opened in e-procurement portal after completion of techno commercial evaluation.
VII	Approximate amount put to tender	Rs.162 Crs/-
VIII	EMD to be paid	Rs.1.62Crs/- (One Crores sixty two lakhs only)
IX	Validity of Offer	180 days

**Note:**

If the EMD amount exceeds Rs.10 Lakhs, then Payment of Rs.10 lakhs shall be made in e-procurement portal & the balance amount of EMD shall be furnished by way of Bank Guarantee in favour of the General Manager (DSM), BESCOM, Bangalore issued from scheduled bank.

BESCOM will have the right to modify or add events to the calendar and the same will be communicated to the bidders.

The bidders can obtain the tender documents from website free of cost. The prospective bidders are advised to register their user ID, password and Company ID from website <https://eproc.karnataka.gov.in>

Bidders can get clarifications regarding the scope of work and technical features of the project from the undersigned during office hours.

For clarifications regarding e-payment, contact e-procurement help desk 080-22485867/22485927, or e-mail to [hphelpdesk.blr@rtsservices.com](mailto:hphelpdesk.blr@rtsservices.com) for any assistance.

**The bidders will be required to register themselves with the center for e-governance, GoK to participate in the bidding.** Necessary details could also be obtained over telephone at 080-25501216/25501227

**Sd/-**  
**General Manager (DSM)**  
**BESCOM, Bengaluru**