



# SOURA GRUHA YOJANE (SGY)

Ref No.: BESCOM/BC-51/2022-23/FA-21/CYS-20

Dated: 14-10-2022

## **Guidelines for Grid Connected Solar Rooftop Program under SOURA GRUHA YOJANE (SGY) scheme for FY 2021-22**

### **Preamble:**

- ❖ Ministry of New and Renewable Energy (MNRE), GoI under phase-II scheme has launched grid connected solar rooftop scheme for Individual Residential Consumers and Group Housing Societies (GHS)/Residential Welfare Scheme (RWA) categories of consumers with Central Finance Assistance (CFA).
- ❖ MNRE, GoI has issued guideline vide dated 20.08.2019 and the gist is as below
  - a) The program will be implemented through DISCOMs as this will lead to ease of access for the consumers.
  - b) The implementing agency i.e DISCOMs or its authorized agency shall invite Expression of Interest for empanelment of agencies for supply, installation, testing and commissioning of RTS system in residential premises.
  - c) The beneficiary interested to install RTS plants will submit their application online or to the local office of the concerned DISCOMs where the online portal is not developed.
  - d) The entire process of receiving proposals, processing them and approval would be IT enabled.
  - e) The CFA details are as detailed below

**Table A**

Type of Residential sector	CFA (as percentage of bench mark cost or cost discovered through competitive process whichever is lower)
Residential sector (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 systems already installed by individual residents in that GHS/RWA at the time of installation of RTS for common activity	20%

- ❖ MNRE, GoI has allocated 10MW to BESCOM for FY 2021-22.



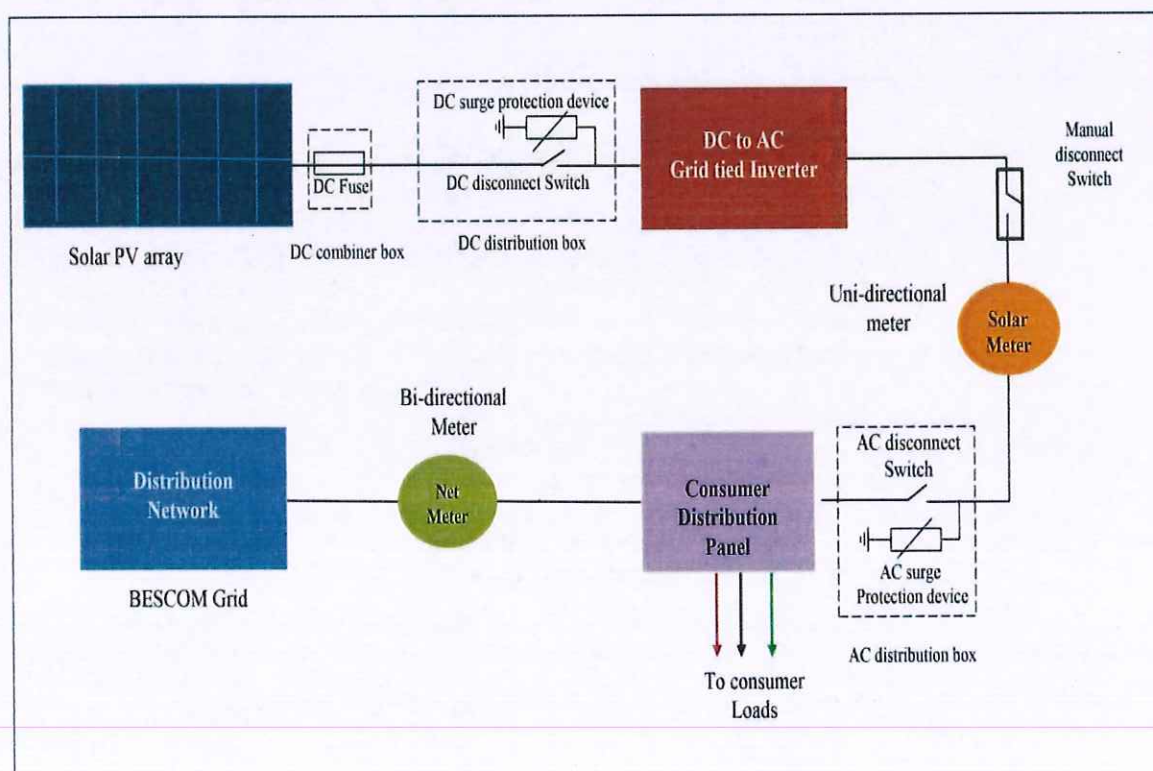
- ❖ The MNRE, GoI benchmark cost for grid connected SRTPV for FY 2021-22 is as tabulated below

Capacity Range*	Benchmark Cost (Rs. per kW) excluding GST
1kW	Rs.46923/-
>1kW to 2kW	Rs.43140/-
>2kW to 3kW	Rs.42020/-
>3kW to 10kW	Rs.40991/-
>10kW to 100kW	Rs.38236/-
>100kW to 500kW	Rs.35886/-
* Capacity will be calculated based on Inverter capacity or the SPV module array capacity whichever is lower.	

All the above benchmark costs are inclusive of total system cost including Photo-Voltaic solar modules, inverters, balance of systems including cables, Switches/Circuit Breakers/Connectors/Junction Boxes, mounting structure, earthing, Lightening arrester, cost of meters (if any other than net meter), cost of civil works, foundations, etc. and its installation, commissioning, transportation, insurance, comprehensive maintenance charges for five years, applicable fees and taxes etc.

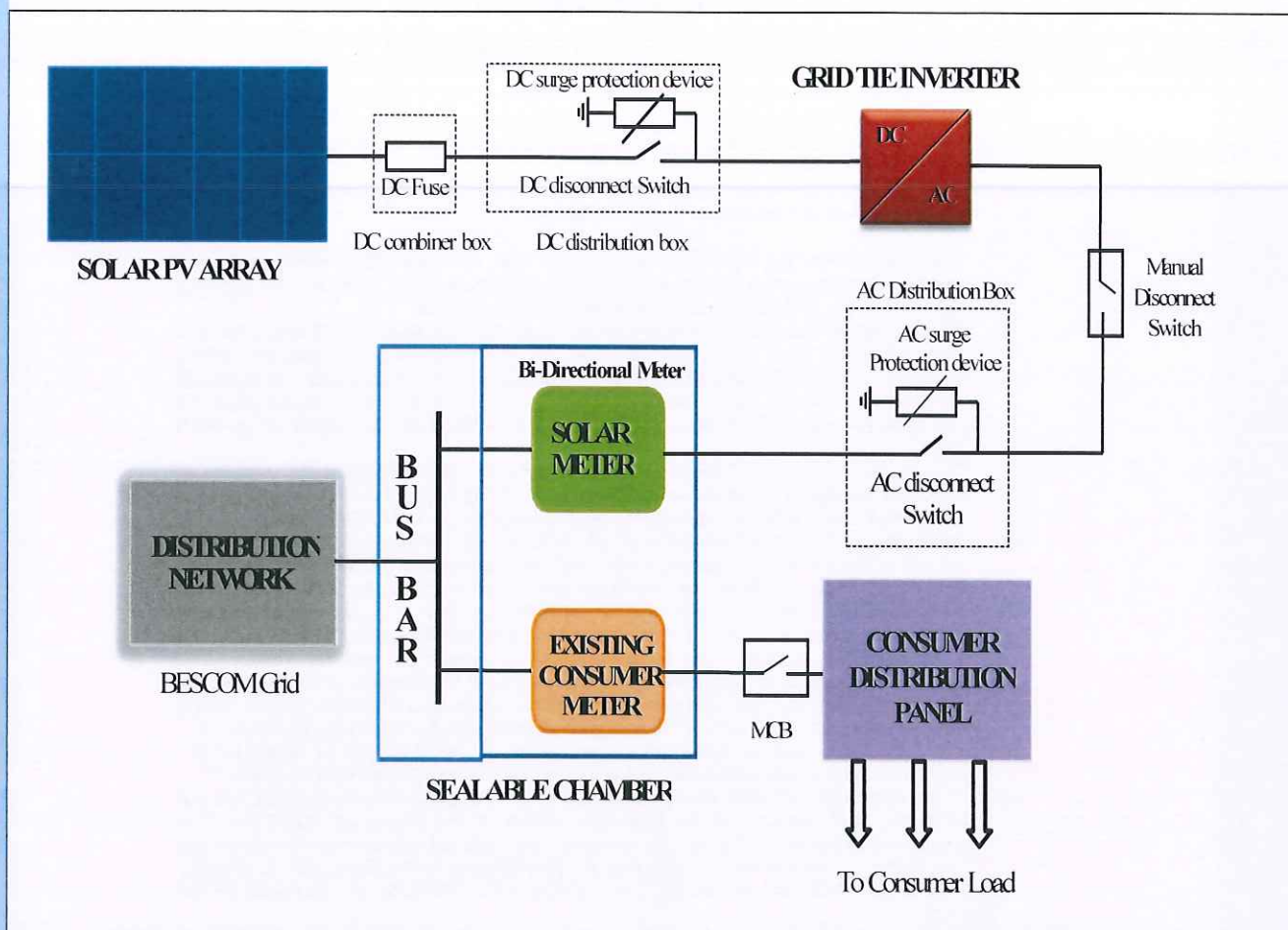
- ❖ The schematic diagram of Solar Rooftop Plant for net metering & gross metering arrangement is as below and consists of following components

Single Line Diagram of Rooftop Facility for Net Metering Interconnection





### Schematic Diagram of Rooftop Facility for Gross Metering Interconnection



- a. Solar Photo Voltaic (SPV) modules
- b. Inverter
- c. Module Mounting structures
- d. Array Junction Boxes
- e. DC Distribution Box
- f. AC Distribution Box
- g. Protections – Earthing System, Lightning Protection, Surge Devices
- h. Cables (DC cables & AC cables)
- i. Energy Meters (Bi-Directional Meter & Solar Meter)

❖ MNRE, GoI vide OM dated 02.02.2022 has issued new simplified procedure wherein the residential consumers will have flexibility to get the solar rooftop plant installed by themselves or through any vendor of their choice. The procedure is under process.



**OFFICE MEMORANDUM**

Subject: Simplification of procedure - Rooftop Solar Programme Ph-II


This refers to PIB release issued on 21.01.2022 regarding simplification of Rooftop Solar Programme of Ministry of New and Renewable Energy, announcing that the residential consumers will have flexibility to get the rooftop solar plant installed by themselves or through any vendor of their choice.

2. The new simplified procedure will be as follows:

- i. A national portal for registering applications from the beneficiary, approval thereof and tracking progress will be developed. There will be a portal in the similar format at the level of the DISCOMs and both the portal will be linked.
- ii. The household beneficiary, who wishes to install Rooftop Solar (RTS) under the new mechanism will apply on the national portal. The beneficiary will be required to submit necessary information including details of bank account where the subsidy amount will be transferred. At the time of application, the beneficiary will be informed about the complete process and subsidy amount that can be availed for installation of the RTS plant.
- iii. The application will be forwarded online to the concerned DISCOM for issuance of technical feasibility approval within next 15 working days. After the application is transferred to the DISCOM it will also be displayed on the DISCOM portal.
- iv. After obtaining technical feasibility, the beneficiary will install the RTS plant from any vendor of his choice by selecting solar modules fulfilling the conditions of DCR and enlistment under ALMM and inverters which are certified by BIS. The list of empanelled vendors will be provided on the portal. In order to ensure quality and post installation services, MNRE will issue standards and specifications for RTS plant and a format of agreement to be executed between beneficiary and the vendor. The agreement among other terms and conditions will have the provision to ensure that the RTS plant installed meets safety and performance standards and that the vendor would maintain the plant for next 5 years or higher period as per terms of the agreement.
- v. The beneficiary has to install RTS plant within a specified period otherwise his application will be cancelled and he has to re-apply for installation of RTS plant.
- vi. Upon installation of RTS plant, the beneficiary will apply for net-metering on the national portal, which will be forwarded online to the concerned DISCOM. The concerned DISCOM will either procure and install the net-meter or it will advise the beneficiary to procure the net-meter as per prescribed specifications and get it tested from the DISCOM authorized lab. The decision of the DISCOM will be posted on the portal.
- vii. After installation of the net-meter, the DISCOM officer will submit a commissioning and inspection report on the national portal, which will also be reflected on the DISCOM portal.
- viii. On receiving the inspection report, the subsidy will be released directly in the bank account of the beneficiary by the DISCOM.
- ix. The whole process will be monitored and a grievance redressal mechanism will be put in place.

3. It is expected that the national portal will be developed in about six to eight weeks. Till the national portal comes into operation, the existing procedure for availing subsidy for installation of rooftop solar plant through DISCOMs will continue and will be the only authorized procedure to avail subsidy from MNRE. After the National portal set up, the beneficiary will have the choice of installing RTS availing either of the options.

4. The general public may be advised not to trust any misleading/spurious information being published on websites/social media particularly asking for registration fee or other payment for getting Government of India subsidy for installation of rooftop solar plants. Authentic information in this regard will be made available on the official website of Ministry [www.mnre.gov.in](http://www.mnre.gov.in) or on SPIN portal [www.solarrooftop.gov.in](http://www.solarrooftop.gov.in).

  
(J K Jethani)  
Sr. Director/Scientist-F

To

1. ACS/Principal Secretary (Energy/Power/Renewable Energy), all States/UTs
2. Secretary, all SERCs/JERCs
3. CMD/MD/CEO, all DISCOMs
4. Electricity Departments of Arunachal Pradesh/ Nagaland/ Mizoram/ Sikkim/UTs



**General Terms and Conditions for installation of SRTPV plant from the empanelled Vendor of BESCOM under SGY scheme**

1. Online Applications are invited from Individual Residential Consumers and Group Housing Societies (GHS)/Residential Welfare Associations (RWA) category consumers of BESCOM for installation of solar rooftop plants. The consumer in addition to registration through online shall also submit application form in the prescribed Format-1 to the sub-divisional officer, BESCOM.

Online Application link:

[http://srtpv.bescom.org/SRTPV/expression\\_of\\_interest\\_soura\\_gruha.jsp](http://srtpv.bescom.org/SRTPV/expression_of_interest_soura_gruha.jsp)

2. The existing SRTPV consumer is not eligible under this SGY scheme.
3. The consumer during registration shall request SRTPV capacity less than or equal to sanctioned load of the installation.

**Note:**

- Plant capacity' means DC Capacity i.e., total solar wattage of all of solar panels connected. The plant capacity of the SRTPV Plant installed at the Consumer premises shall be less than or equal to the sanctioned load of the Consumer. Inverters shall be installed equal to or nearer to capacity of the plant as arrived above.
- Solar Rooftop plant of 1kWp, total solar wattage of all of solar panels connected i.e DC capacity shall be less than or equal to 1kW and the inverter shall be installed equal to 1kW capacity.

4. The consumer shall opt for Net Metering or Gross Metering during registering the application

**Net Metering:** means an arrangement under which an eligible consumer supplies the surplus electricity generated from his SRTPV plant to the Distribution Licensee after off-setting the electricity supplied by the distribution licensee to such eligible consumer during the billing period.

**Gross-metering:** means an arrangement under which an eligible consumer supplies the entire electricity generated from his SRTPV plant to the distribution licensee during the billing period.

5. The consumer shall pay application fee and facilitation fee as detailed below:

Sl no	Capacity of proposed SRTPV system	Registration fee Rs.	Facilitation fee Rs.	Total Amount
1	>1kWp upto 5kWp	500/-	1000/-	Rs. 1500/- plus applicable GST
2	>5kWp upto 50kWp	2000/-	3000/-	Rs. 5000/- plus applicable GST
3	>50kWp upto 500kWp	5000/-	10000/-	Rs. 15000/- plus applicable GST

**Note :** Application fee is non- refundable



6. The consumer shall select Engineering Procurement & Construction Contractor (EPC) from the empanelled list of BESCOM for installation of SRTPV plant during registration. The safety of the consumer in all aspects is their responsibility
7. The sub-divisional officer, BESCOM shall be the nodal point of contact for the scheme.
8. Technical feasibility will be carried out by the concerned sub-divisional officer, BESCOM. The sub-divisional officer, BESCOM shall submit feasibility report in the online portal of BESCOM. Application which is not technically feasible will be rejected.
9. The Vendor shall conduct survey of the installation and the survey report shall be duly signed by the Vendor & Consumer.
10. The consumer shall pay facilitation fee to BESCOM through online portal of BESCOM after receiving payment intimation from BESCOM.
11. The sub-divisional officer, BESCOM shall issue intimation letter in the prescribed Format-2 to the consumer for execution of Power Purchase Agreement (PPA) with BESCOM.
12. The consumer shall execute Power Purchase Agreement (PPA) on Non-Judicial stamp paper of Rs. 200 as per the KERC Standard Format with BESCOM for a period of 25 years on Net/Gross metering arrangement at the tariff determined by Hon'ble Karnataka Electricity Regulatory Commission (KERC) and the Vendor shall coordinate with the consumer for execution of PPA. The cost of the stamp paper shall be borne by the Consumer.
13. The consumer shall execute an agreement with the Vendor for installation of SRTPV plant and shall upload the agreement in the online portal of BESCOM.
14. The consumer shall pay the SRTPV installation cost excluding CFA to the Vendor through online transaction mode only and the customer shall be solely responsible for financial transaction with the Vendor. The cost of the Bi-directional Meter and the related necessary components of metering system shall borne by the Consumer.

The list of the empaneled Meter Vendors for different types of Bi-direction Meters and the corresponding Rate of the Meter is as shown in the table below.



Capacity Range	Type of Bi-directional Meter	Rates Inclusive of taxes in Rs. and Name of the empaneled Meter Vendor				Calibration fees of Meter (Payable to BESCO) in Rs.
		M/s Secure	M/s Genus	M/s HPL	M/s L&T	
Upto 5kW	Single Phase, 2 wire	2,805	2,680	2,200	---	200
Above 5kW & upto 17.5 kW	Three Phase, 4 wire, Whole current	6,985	---	6,300	---	1,800
Above 17.5 kW & upto 50 kW	Three Phase, 4 wire, CT Operated	10,076	9,700	8,500	---	1,800
50 kW & above	Three Phase, 4 wire, CT Operated	21,755	---	---	22,000	2,400

15. The sub-divisional officer, BESCO in the prescribed Format-4 shall issue approval letter to the consumer to start the installation of SRTPV systems by the Vendor of BESCO after execution of PPA.

16. The SRTPV installation shall be carried out by the Vendor within 150 days from the date of approval of PPA from sub-divisional officer, BESCO or the last date of the project timeline specified by MNRE to BESCO i.e. 05.01.2024 whichever is earlier

Note:

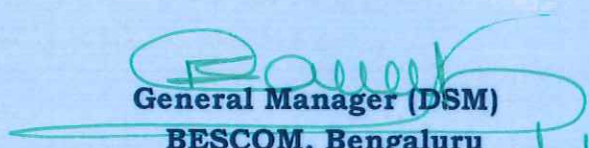
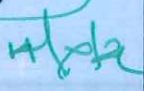
- The project shall be implemented as per Solar Rooftop Photovoltaic Power systems Regulations, 2016 and as per Letter of Empanelment issued to the empanelled Vendor.
- The SRTPV systems above 50kWp, the infrastructure charges such as replacement of HT cubicle, Transformers etc., have to be borne by respective SRTPV consumers. The evacuation of energy from SRTPV systems shall abide by KERC SRTPV Regulations-2016.
- The consumer shall use only tested Bi-directional meters from BESCO empanelled firms available at vendor outlets and has to pay the cost of the bi-directional meter and the related necessary components of metering system.



17. The consumer shall collect invoice and warranty card from the Vendor.
18. The consumer along with Vendor shall carry out inventory of the materials after installation of the SRTPV plant and inventory report shall be jointly signed by the Vendor and consumer.
19. The consumer shall submit Work Completion Report in the online portal of BESCO and shall also submit hardcopy of Work Completion Report in Format-5 to the sub-divisional officer, BESCO. The Vendor shall coordinate with the consumer for submission of Work Completion Report.
20. Joint inspection of the SRTPV plant shall be carried out by BESCO, Consumer and Vendor after work completion and shall submit Joint Inspection Report in the online portal of BESCO. The Vendor shall coordinate with the consumer for submission of Joint Inspection Report.
21. The sub-divisional officer, BESCO shall commission and synchronize the SRTPV plant. The Vendor shall coordinate for the Commissioning and Synchronizing of the SRTPV plant. The sub-divisional officer, BESCO shall upload and submit Format-6 and also issue Certificate of Synchronization in the prescribed format i.e Format-6A to the consumer.
22. The Vendor shall conduct training to the consumer on various aspects of maintenance after commissioning of the SRTPV plant.
23. The consumer shall submit a photograph of the plant with placard held by the consumer showing the name of the beneficiary, BESCO's application registration number and system capacity to BESCO to claim the CFA.
24. The consumer shall issue a certificate that the system is installed and commissioned in all respect with the date of commissioning, system and inverter capacity, etc. and that the selected Vendor has provided the 05 (Five) Year Warranty Card and the O&M Manual.
25. The Vendor shall hand over the SRTPV plant to the consumer after commissioning of the Solar Rooftop plant and the handing over report shall be jointly signed by the EPC and consumer.
26. The Operation and Maintenance of the SRTPV plant by the Vendor shall be from the date of the commissioning of the SRTPV plant and shall be for a period of 5 years.
27. BESCO or MNRE Officials or Designated Agency reserves the right to inspect the SRTPV plant.



28. Any queries and clarifications, the consumer may contact the concerned Sub-Divisional officer, BESCOM or e-mail to [bescomsgy@gmail.com](mailto:bescomsgy@gmail.com) or contact Solar Help desk No: 080 22340816.

  
General Manager (DSM)  
BESCOM, Bengaluru 



**BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED**

(Wholly owned Government of Karnataka Undertaking)

**Format-1****Application Form for Grid Connectivity Solar Roof Top PV Generation system on Gross/ Net Metering Basis**

<input type="checkbox"/> <b>New</b>	<input type="checkbox"/> <b>Additional</b>	<input type="checkbox"/> <b>Multiple</b>
<input type="checkbox"/> <b>Gross Metering</b>	<input type="checkbox"/> <b>Net Metering</b>	
<input type="checkbox"/> <b>CAPEX</b>	<input type="checkbox"/> <b>SECI</b>	<input type="checkbox"/> <b>Any other scheme please specify</b>

**1. Applicant Details***Applicant details:**Name of the Applicant**Address & Contact details*

House/Flat/Shop No.

Cross

Main

Location

Street

City

Landmark

Pin code

Land Line Ph. No.

Mobile

Email

**2. Installation Details**

Sub-division code

RR Number

Account ID No.

Sanctioned Load in kW .....

Contract Demand in KVA .....

☐ Single Phase☐ Three phase

Category of Installation (please tick (✓) on the appropriate box)

☐ Residential☐ Commercial☐ Industrial☐ Educational Institution☐ Government Organization☐ Others**3. Rooftop System details** (please tick (✓) on the appropriate box)**Proposed Capacity of Solar RTPV power plant in kW peak****Type of Installation****Single phase LT**☐ (Upto and inclusive 5kWp)**Three phase LT(above**☐ 5kWp upto 50kWp)**HT(above**☐ 50kWp upto 1000kWp)**Approximate shadow free area of Rooftop in sq. mts.****4. Subsidy**

Whether applicant wish to avail MNRE subsidy

Yes

☐

No

☐

Whether MNRE Subsidy is sanctioned or not

Yes

☐

No

☐

Certificate:

1. The above stated information's are true to best of my knowledge.
2. Certified that my building can take up the proposed weight of Solar PV system.

Place:

Signature of the applicant

Date:

Name:





# BANGALORE ELECTRICITY SUPPLY COMPANY LIMITED

(Wholly owned by Government of Karnataka Undertaking)

<b>Technical Feasibility Report</b> <b><u>For the SRTPV plants from 1kWp to 50kWp</u></b> <b>(To be submitted by the Assistant Executive Engineer(AEE))</b>		
Sl No.	Parameter	Utility Observation tility Observation
<b>A</b>	<b>Distribution Transformer Details</b>	
1	Location	
2	Capacity in KVA	
3	Total Connected load in kW	
4	SRTPV capacity already connected in kWp	
5	SRTPV Capacity already proposed which is under progress in kWp	
6	Proposed SRTPV capacity in kWp	
7	Total Generation Capacity (4+5+6) in kWp	
8	Whether the transformer capacity is adequate to deliver the proposed SRTPV system in addition to existing/ already proposed under progress solar RTPV systems* <b>(The Transformer shall be loaded upto 80% of capacity)</b>	Yes/No
<b>B</b>	<b>Feeder Details</b>	
1	Name of the 11kV feeder	
2	Feeder Number	
3	Name of the 66/11kV Sub-Station	
4	Type of the conductor/cable (size)	
5	Total connected load on the feeder in kVA	
6	Total capacity (kWp) of SRTPV systems connected on the feeder	
7	Peak load on the feeder in Amps	
8	Proposed SRTPV installation is technically feasible, if the total SRTPV capacity is less than or equal to the 11kV feeder capacity.	Yes/No (if it is not feasible,state reasons)

The Transformer shall be loaded upto 80% of capacity.

Enclosure: 11kV feeder & LT Distribution sketch of the transformer.

I hereby certify that the above said SRTPV installation is technically feasible/not.

Signature and Name

AEE(Ele)

C, O&M Section \_\_\_\_\_,  
BESCOM.



**Technical Feasibility Report**  
**For SRTPV plants - Above 50 to upto 1000kWp**  
**(To be submitted by the Assistant Executive Engineer(AEE))**

Sl No.	Parameter	Utility Observation
<b>A</b>	<b>Distribution Transformer Details</b>	
1	Location	
2	Capacity in KVA	
3	Total Connected load in kW	
4	SRTPV capacity already connected in kWp	
5	SRTPV Capacity already proposed which is under progress in kWp	
6	Proposed SRTPV capacity in kWp	
7	Total Generation Capacity of SRTPV (4+5+6) in kWp	
<b>B</b>	<b>Feeder Details</b>	
1	Name of the 66/11kV Sub-Station	
2	Feeder Number	
3	Name of the 11kV feeder	
4	Type of the conductor/cable (size)	
5	Rate current carrying capacity of the conductor / cable in Amps	
6	Total connected load on the feeder in Amps	
7	SRTPV capacity already connected on the feeder in Amps	
8	SRTPV Capacity already proposed which is under progress on the feeder in Amps	
9	Proposed SRTPV capacity on the feeder in Amps	
10	Total Generation Capacity of SRTPV (7+8+9) on the feeder in Amps	
11	Whether Proposed SRTPV installation is technically feasible or not <b>Note:</b> Total Generation Capacity of SRTPV (7+8+9) on the feeder in Amps should be less than 80% of the current carrying capacity of the feeder in Amps, for Technically Feasible cases	Yes/No (if not state the reasons)





Bangalore Electricity Supply Company Limited  
(wholly owned Government of Karnataka undertaking)

Telephone :

Email ID :

Ref No.:

Office of the

.....

.....

Date:

To,

(Name & address of the applicant)

.....

.....

Madam/Sir,

Sub: Intimation letter for submission of Power Purchase Agreement (PPA) for  
Gross / Net metering for grid connectivity of SRTPV plants - reg

Ref: Application Reg. No. .... dtd: .....

With reference to your application cited under reference, it is pleased to inform that your application is technically feasible for Partial / full proposed capacity for grid connectivity. Hence, you are requested to submit the Power Purchase Agreement (PPA) for execution within 7 days from the date of this letter, failing which your application will be treated as cancelled.

The standard Power Purchase Agreement approved by KERC is available in the BESCOM website. [www.bescom.org](http://www.bescom.org) - > solar RTPV online services (Format 3- Gross Metering / Format 3A- Net-metering)

Yours faithfully,

AEE/Executive Engineer(Ele)  
C,O&M.....sub-div/division,  
BESCOM, .....





**Bangalore Electricity Supply Company Limited**  
(wholly owned Government of Karnataka undertaking)

Telephone :

Email ID :

Ref No.:

Office of the

.....

.....

Date:

TO,

(NAME &amp; ADDRESS OF THE APPLICANT)

.....

.....

Madam/Sir,

Sub: Approval for the PPA and start of SRTPV work - reg

Ref: 1. Application Reg. No. .... dtd: .....

2. PPA executed date:.. .....

3. KERC approval letter vide no... ..dt:

\*\*\*\*\*

With reference to your SRTPV application, Approval is herewith accorded for PPA executed on ..... for Solar RTPV system of ..... kWp on your rooftop under Net-metering / Gross metering basis and to start the installation work of SRTPV, as per following terms and conditions:

1. As per CEA guide lines, you are responsible for planning, design, construction, reliability, protection and safe operation of all the equipment's subject to the regulations for construction, operation maintenance, connectivity and other statutory provisions.
2. You can select a reputed system installer of your choice, who have experience in design, supply, installation and commissioning of SRTPV system.
3. Only BESCOM empaneled inverters and meter shall be used. The empaneled list of inverters and meters are available in BESCOM website.
4. Upgradation of infrastructure, if required, (service main, meter with CT, upgrade) upto the grid connectivity point is to be done at your cost.
5. All the other components of Solar RTPV system shall comply with applicable IS/IEC standards. The Technical specification of each equipment's is available in BESCOM website.
6. The work of grid connectivity shall be carried out in accordance with the Net- metering / Gross metering schematic diagram available in BESCOM website.
7. Bi-directional meter (whole current/ CT operated) shall be provided before the point of interconnection and the existing meter shall be shifted to the generation side of SRTPV plant to measure solar power generation.



8. Both the meters shall be within the same proximity and easily accessible for taking monthly reading by the meter reader.
9. The Applicant shall provide Bi-directional check meter in series with the proposed Bi-directional meter (Main meter) when the SRTPV system capacity is more than 17.5kWp.

10. You should be complete the SRTPV installation work before

**Note:**

a. SRTPV capacities from 1kWp to 500kWp - Within 180 days from the date of this letter.

b. SRTPV capacities above 500kWp to 1000kWp - Within 180 days from the date mentioned in the KERC approval letter for the PPA.

11. After completion of the work in all respects, you have to submit the work completion report in Format – 5 along with following documents:

- a) Test reports of PV modules and other equipment's (expect Grid tied inverter and bi-directional meter) as per IS/ IEC standards.
- b) Test certificate of Bi-directional meter issued by MT division, BESCOM.
- c) First sheet of Bank pass book containing details of Name of the Bank, Type of account, Account No, Name of the Branch, IFSC code etc.

12. If for any reason the date of commissioning is delayed beyond the date of commissioning agreed, the tariff payable by the BESCOM shall be lower of the:

I. Tariff agreed to in this agreement

**OR**

II. Any revised tariff, determined by the Commission, prevailing on the date of commissioning

**OR**

III. 90% of the tariff agreed to in this agreement.

Please note that BESCOM will not be held responsible for any legal disputes between the applicant and SRTPV system installer arising out of the contract.

Yours faithfully,

AEE/EE

C, O&M .....SD/Division,  
BESCOM.



**Work completion Report**  
(To be submitted by the applicant)

To,

The Assistant Executive Engineer(Ele) / Executive Engineer (Ele),

.....C, O & M, Sub-division/Division

.....

Madam/Sir,

Sub: Submission of work completion report.

Ref: Your letter no .....dt:.....(Format-4).

With reference to the above, the work of installation of SRTPV system is completed and I would like to submit the following information for your kind needful.

A. Solar PV module

1	Make	
2	Type of the module	
3	Capacity of each module in kWp	
4	No. of Modules	
5	Sl.No. of Modules	
6	Total Capacity in kWp	

B. Inverter

1	Make	
2	Type	
3	Capacity	
4	No. of Inverter	
5	Sl.No.	

C. Cables: DC

1	Make	
2	Size & Type	

D. AC wiring

1	Make	
2	Size & Type	

E. DC distribution box

1	Make	
2	Sl. No	
3	DC Surge Protection Device	
4	MCB / Isolator quantity & capacity	

F. AC distribution box

1	Make	
2	Sl. No	
3	AC Surge Protection Device	
4	MCB / MCCB quantity & capacity	



G. Earthing

1	Earthing resistance (less than 5 ohms)	
2	Size of the Earth flat (3x70 sq.mm galvanic iron flat)	
3	Three separate earthing points 1. Modules & DC Surge arrester 2. Inverter & AC Surge arrester 3. Lighting Arrester	

H. Bi-directional meter details (please enclose the test report of bi-directional meter issued by MT division, BESCOM)

Sl. No.	Particulars	Main Meter	Check Meter
1	Make		
2	Type		
3	Sl.No		
4	Single Ph/Three Ph.		
3	CT Ratio		
4	PT Ratio		
5	Date of Test by MT, BESCOM		

I. Caution signs

Size of the caution label: 105 mm width X 20 mm height, with white letters on a red background

1	Panels	
2	Inverters	
3	DC/ AC distribution box	

J. Provision of manual and automatic switch : Yes/ No

K. Installation inspection date:

The SRTPV system has been installed and inspected in compliance with the Electricity Act 2003, the Indian Electricity rules 1956 (Rule 47A)

Inspection by	Inspection date
AEE / EE, C,O&M, Sub-division / Division (for SRTPV capacities upto 1000kWp)	
Electrical inspectorate (Solar RTPV Approval letter shall be submitted)	

Certified that the above said SRTPV system was installed by me and the equipment's used comply the Technical and Safety standards issued by BESCOM.

Applicant Signature

Name:.....

Date: .....

System Installer Signature & seal

Name of the firm:.....

Date: .....





**Bangalore Electricity Supply Company Limited**  
(wholly owned Government of Karnataka undertaking)

**Commissioning & Synchronizing report of SRTPV  
system ( Net / Gross metering)**

<b>A</b>	<b>Consumer Details</b>			
1	Name of the Consumer			
2	Category			
3	RR No./Account ID/Connection ID			
4	Pole Number			
<b>B</b>	<b>Meter Details</b>	<b>Bi-directional Meter</b>		<b>Generation meter</b>
		<b>Main Meter</b>	<b>Check Meter</b>	
1	Meter make: 1ph / 3 ph			
2	Type			
3	Serial number			
4	Capacity			
5	Meter constant			
6	Initial reading (Tri vector parameters)			
	i) Import			
	ii) Export			

Note:

The Bi-directional meter ~~records solar generation and existing meter records~~ installation consumption in case of Gross metering.

The Bi-directional meter ~~records export of solar energy to grid and Import of energy~~ by the installation. Existing meter records the total solar energy generated.

<b>C</b>	<b>Grid Tied Inverter</b>	
1	Make	
2	Serial number	
3	Capacity	



4	Input voltage	
5	Output voltage	
6	Whether Anti-islanding feature is in working condition	Yes/No
<b>D</b>	<b>PV Module</b>	
1	Make	
2	Serial number	
3	Type of module	
4	Capacity of each module	
5	Number of modules	
6	Total capacity of module	
E	Earthing verified: DC earthing, AC earthing, LA earthing of SRTPV system	Yes/No
F	Details of protective system available	<ul style="list-style-type: none"> <li>• AC &amp; DC DB: Yes/No</li> <li>• Manual Switch solar side: Yes/No</li> <li>• Relay operated automatic switch at net-meter side: Yes/No</li> </ul>
G	AEE, BESCO inspection & approval letter obtained	Yes/No
H	Work completion report of SRTPV system obtained from agency	Yes/No
I	Date of synchronizing with BESCO grid	dd/mm/yyyy

AEE(Ele.)/EE(Ele.)  
MT S/D/Dvn, -----,  
BESCO

AEE(Ele.)/EE(Ele.)  
O&M -----,  
BESCO

Name &  
Signature of  
Consumer

**Note: All SRTPV formats should be updated in online portal and no offline format shall be processed.**





**Bangalore Electricity Supply Company Limited**  
(wholly owned Government of Karnataka undertaking)

Telephone :	Office of the
Email ID :	.....
Ref No.:	.....
	.....Date:

**To,**

(Name & address of the applicant)

.....  
.....

**Madam / Sir,**

**Sub:** Certificate of synchronization of your kWp SRTPV system

**Ref:** Application Reg. No. .... dtd: .....

Synchronization test of Solar Rooftop PV system of.....kWp, installed on the roof of your installation bearing RR No.: .....has been conducted and your SRTPV system successfully synchronized with the BESCOM grid at..... voltage level on dd/mm/yyyy.

Yours faithfully,

AEE/Executive Engineer(Ele) O&M  
BESCOM .....

Copy submitted to:

1. Chief Engineer (Elect), Load dispatch Centre, KPTCL, Anand Rao Circle, Bangalore.
2. Chief General Manager(Operations), Corporate office, BESCOM, K.R. Circle, Bangalore.
3. General Manager(DSM), Corporate Office, BESCOM, K.R. Circle, Bangalore.
4. EE, C, O & M .....Division, BESCOM.
5. Copy for information EE of MT division.
6. MF/OC

Note:

1. Copy is to be marked to CEE, LDC, CGM (Op) if the SRTPV capacity is more than 500kWp.
2. The file along with all the documents is to be sent to revenue section for billing purpose.



### Joint Inspection Report

It is to certify that a Grid Connected Solar PV Power Plant has been installed with following details:

1. Name of the beneficiary: \_\_\_\_\_
2. Address of installation with pin code: \_\_\_\_\_
3. Electricity consumer number: \_\_\_\_\_
4. Solar PV module capacity (DC): \_\_\_\_\_ kWp
5. Inverter capacity (AC) (Nominal output power): \_\_\_\_\_ kW
6. Date of installation: \_\_\_\_\_
7. Date of commissioning (after installation of net-meter): \_\_\_\_\_
8. Date of Joint inspection: \_\_\_\_\_
9. Metering arrangement: \_\_\_\_\_ (Net meter/Gross meter/Net billing)

The above system is as per BIS/MNRE specifications and has been checked for its performance on \_\_\_\_\_ and it is working satisfactorily.

	DISCOM	EMPANELLED AGENCY	CONSUMER
Name	_____	_____	_____
Designation	_____	_____	
Date	_____	_____	_____
Sign	_____	_____	_____
Seal	_____	_____	

It is to certify that the above system has been purchased with following details:

1. Total project cost ₹ \_\_\_\_\_
2. CFA amount ₹ \_\_\_\_\_
3. Amount paid by beneficiary ₹ \_\_\_\_\_

	EMPANELLED AGENCY	CONSUMER
Name	_____	_____
Designation	_____	
Date	_____	_____
Sign	_____	_____
Seal	_____	



