

GULBARGA ELECTRICITY SUPPLY COMPANY LIMITED

(A Government of Karnataka Enterprise)

Phone No: 08472 256881
E-mail: gescomdsm@gmail.com



Corporate Office, GESCOM,
Kalaburagi,
Pin Code.585 102.

No.GESCOM/CEE(O)/EEE(DSM)/AEE(DSM)/AE(DSM)/2023-24/ 17558

Date: 17 JUN 2023

Guidelines for Grid connectivity of Solar Rooftop Photo Voltaic (SRTPV) systems installed as per the KERC(Implementation of Solar Rooftop Photovoltaic Power plants) Regulations, 2023:

1. The SRTPV Application is invited from all the consumers of GESCOM through **On-line mode only and no off-line Applications are allowed.**
2. Applications can be submitted from 1kWp to upto 2000kWp. At GESCOM Website:- <http://gescomsrtpv.in/>
3. Document Required for application.
 - a. Recent electricity bill.
 - b. Aadhar card.
 - c. Pan card.
 - d. Photo of the applicant.
4. The fee details:

Sl. No	Capacity of the proposed SRTPV system	Registration Fee	Facilitation Fee	Remarks
1	From 1kWp Upto and inclusive of 5kWp	500/- + Applicable GST	1000/- + Applicable GST	Application fee and Facilitation fee are non-refundable.
2	Above 5kWp Upto and inclusive of 50Kwp	1000/- + Applicable GST	2000/- + Applicable GST	
3	Above 50kWp and Upto 2000Kwp	2000/- + Applicable GST	5000/- + Applicable GST	

5. The Sub-divisional officer (SDO) shall be Nodal point of contact for Solar RTPV program.
6. Type of Metering:

Sl. No	Type of Metering	Eligible Consumers
1	Gross metering & Net Metering	Applicable for Domestic consumers, Hospital and Educational institutions Consumers. (HT-4,HT-2(C), LT(a) & LT2(b))

		Note: Commission vide order dated 01.06.2023 has allowed one time irrevocable option of either gross to net metering for consumer at the time of signing of PPA
2	Net Metering	Applicable to Industrial, Commercial and all categories of consumers other than Domestic Consumers.

7. The Power Purchase Agreement (PPA) Execution and Approval letter issuing Authority for SRTPV installations:

Sl. No	Capacity wise SRTPV PPA Executive & Approval letter issuing Authority	GESCOM Officer's
1	Upto 50Kwp	Assistant Executive Engineer (Ele) O&M Sub-division
2	Above 50kWp upto 1000kWp	Executive Engineer (Ele) O&M Sub-division
3	Above 1000kWp upto 2000kWp	Draft PPAs are to be approved, by KERC through Corporate Office.

8. The SRTPV plant Commissioning & Synchronizing Authority:

Sl. No	Capacities	GESCOM Officer's
1	Upto 50Kwp	Assistant Executive Engineer (Ele) O&M Sub-division in Co-ordination with meter testing (MT) staff
2	Above 50kWp upto 199kWp LT Installations	Executive Engineer (Ele) O&M Sub-division in Co-ordination with meter testing (MT) staff
3	Above 50kWp upto 2000kWp HT Installations	Executive Engineer (Ele) O&M Sub-division in Co-ordination with HT Rating Staff

9. The draft PPA for capacity above 1000kWp shall be submitted to DSM Section, Corporate Office for KERC approval along with following documents:

- Demand Draft of Rs.5000/- in favour of The Secretary, KERC.
- Online Application and Technical Feasibility Report.
- The Detailed Project reports.
- Self-Declaration from the applicant for investment under CAPEX scheme.

- e. Specifications of the roof type along with photographs certified by Concerned EE.
- f. Land ownership or lease agreement documents whichever is applicable.
- g. Latest Electricity bill copy.

Note: In the case of a lease agreement, the PPA shall be executed for the duration of the lease period or maximum for 25 years, whichever is earlier.

10. The Applicant can select any PV modules and system installer to install the SRTPV System.
11. The Applicant shall use only tested Bi-directional Meters from GESCOE empanelled firms available at Vendor outlets.
12. The Applicant shall use Grid tied inverter from GESCOE empanelled firms only.
13. Interconnection voltages as per KERC Regulation-2023, sl. No. 6 (1)(a) shall be as below:

Sl. No	System Capacity	Voltage level
1	From 1kWp upto & inclusive 5kWp	230 V-Single Phase
2	Above 5kWp & Upto 50Kwp	400 V-Three Phase
3	Above 50kWp & above Upto 500Kwp	11kV HT

14. The cost of distribution network upto the interconnection point shall be borne by the applicant as per **KERC Regulation-2016, sl. No. 6 (1)(d)**.
15. The check meter shall be provided for SRTPV systems capacity of more than 17.5 kW.
16. CT's, PT's and Metering Cubicle shall be procured from GESCOE approved Vendors only.
17. For Gross Metering and Net Metering, meters shall be procured from GESCOE approved/ empanelled Vendors only.
18. SRTPV applicant shall be totally 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 as per KERC Standardized PPA clause 1.6 (a).

19. The Technical, Safety, Grid Connectivity standards are to be followed as per KERC Standardized PPA as below:

- a. **Clause 1(Technical and Interconnection requirement)**
- b. **Clause 2(Safety)&**
- c. **Clause 7(Metering)**

20. GESCOm personnel reserve the right to inspect the entire plant routinely at any time as per the Conditions of Supply to the Distribution Licensees clause 18:00, access to Consumer Premises.

21. The domestic and other consumers to install SRTPV units, with their own investment or under subsidy scheme, The proposed SRTPV Load must be equal or less then to the sanctioned load of the respective consumer's installation under net metering or gross metering arrangements.

22. SRTPV plants on the Government buildings by GESCOm under funding from the Government. Under this scheme, the Government installations are allowed to utilize the SRTPV generated energy under net metering arrangement and to allow the excess energy to be injected to the GESCOm's grid without making any payment by the GESCOms to the Government installations, since the GESCOm shall have to maintain the SRTPV units installed on the Government buildings. The cost of maintenance of the SRTPV installations on Government buildings shall be borne by the GESCOms by adjusting amount towards the surplus energy injected to their grid, at the generic tariff rate determined by the Commission from time to time. As per KERC Order dated 11.11.2016. shall be referred.

23. For multiple SRTPV units in respect of multiple/ single registered consumers on a common rooftop in the premises, or single SRTPV unit having multiple installations, under own investment. The installed capacity to be considered for installing the SRTPV was limited to the combined installed capacity not exceeding the total sanctioned load. Tariff of 90% as determined by the Commission. The existing system of charging 90% of tariff as per PPA or the prevailing tariff, whichever is lower, for any change in sanction load/ tariff of the consumer, would continue. As per KERC Order dated 15.09.2017. shall be referred.

24. Each SRTPV plant of less than 150kW capacity shall be connected only to the existing distribution transformer through which the eligible consumers are being supplied electricity. In such cases, the total capacity of the existing and proposed SRTPV plants on that distribution transformer shall not exceed 80% of the rated capacity.

Example: If the rated capacity of the distribution transformer is 100 kVA, the total allowable capacity of the SRTPV plants to be connected shall be 68kW (80 KVA).

25. Every SRTPV plant of more than 150kW shall be connected only to the existing 11kV Distribution System. In such cases, the total capacity of the existing and proposed SRTPV plants on that feeder shall not exceed 80% of the rated current carrying capacity of that line.

26. The Sub-divisional officer (SDO) shall verify for technical feasibility of the installation and if the application is technically feasible, shall issue the intimation letter for execution the Power Purchase Agreement (either for full or partial SRTPV capacity).

Example:

- Existing DTC capacity of 100kVA
- Already connected/ under progress (SRTPVs) is 60 KWs
- Newly proposed is 50 KWs capacity.
- Then total Solar capacity on the DTC is 110kW (> 80% of the DTC capacity
- Hence, the application is technically feasible for partial capacity of 8 kW only (for total 80% ie 68 Kws/ 80 KVA) as against newly proposed capacity of 50kW.

27. The Distribution Licensee while evaluating the technical feasibility of any proposed SRTPV plant shall ensure that the above said parameters are adhered to and any system improvement works beyond interconnection point shall be taken up by the Distribution Licensee for the purpose of connecting the SRTPV plant with the grid.

28. If the application is not technically feasible, the SDO shall cancel the Application and intimate the same to the Applicant.

29. The SDO/DO shall execute the PPA and issue the Approval letter for start of SRTPV work to the applicant.

Note: For above 100kWp SRTPV plants, draft PPAs are to be approved by KERC through Corporate Office.

30. The SRTPV Consumer shall pay the Electricity tax and other statutory levies, pertaining to SRTPV generation, as levied from time to time as per KERC PPA clause 6 (c).
31. As per Government of Karnataka Notification No. EN 135 EBS 2018 dated: 27.08.2018,
- A. Generating units having capacity to produce electricity above 1 MW from Solar Rooftop sources of energy shall be inspected by the Electrical Inspector before commissioning.
- B. Solar Rooftop generation units installed as per the KERC (Implementation Photovoltaic Power plants) Regulations, 2016 shall be inspected periodically as per Regulations 30 of Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2010.
32. In case of consumer intending to install SRTPV plant with multiple RR nos. in single premises with or without SRTPV unit, any change in sanctioned load/contract demand, change in tariff category of consumer already having SRTPV unit in his/her premises, the KERC order dated: 15.09.2017 and tariff order dated:18.08.2021 (clause xiv, c, page 25) shall be referred.

1. Procedure and Time Lines for Grid connected SRTPV plants

Activity	Responsibility	Timeline
For 1kW-10kW(Domestic Consumers)		
Submission of Application which includes PPA. No separate PPA is required to be executed. The submission of application is deemed to be the approval to commence the work.	Consumer/ ESCOM	Zero Date
Directions: ESCOMs are directed to provide facilities for submission of online applications. The PPA and letter of approval to execute the work shall form part of the application. The application format shall be submitted to the Commission for approval within 7 days. The consumer will upload the work completion report within the timelines.		
Online uploading of Work Completion Report by the Consumer.	Consumer	150 (one hundred and fifty) days from the date of uploading/ submission of application.
Inspection by ESCOM officials for commissioning the project, after receipt of work completion	ESCOM	Within 5 (five) working days from the receipt of work completion report, after

report from the consumer.		ensuring satisfactory completion of work. If the plant is not commissioned within 5 days from the date of work completion report, the concerned officer shall be liable to pay penalty of Rs.1000 per day, till the date of commissioning, to the applicant. After five days of work completion, in case the plant is not commissioned, the consumers are entitled to deemed generation benefit.
Commissioning of Rooftop Solar System in case work completion is delayed by the Consumer	Consumer/ ESCOM	Within six months from the date of uploading the application. In case of delay of more than six months, the tariff payable will be as per the terms of PPA.
Billing Process	ESCOM	30 days from the date of commissioning of the Solar plant.
For 1kW-2000kW (All other consumers excluding 1kW to 10kW domestic consumers)		
Submission of Application online	Consumer	Zero Date
Acknowledgment of Application by distribution licensee (ESCOM)	ESCOM	Within 03 (three) working days from zero date
Site verification / Technical Feasibility & issuance of Letter of Approval / Rejection of application.	ESCOM	Within 10 (ten) working days from the date of acknowledging the application.
Execution of PPA (including countersignature by the controlling officer, up to and inclusive of 1000 kW SRTPV projects)	ESCOM & Consumer	Within 5 (five) working days from the date of issuance of Letter of Approval.
Submission for approval of the PPA to the ESCOM, less than 1000kW and to the Commission, for more than 1000 kW.	ESCOM	Within 07 (Seven) working days from the date of execution of PPA.
Submission of Work Completion Report by the Consumer	Consumer	150 (one hundred and fifty) days from the date of execution of PPA.
Inspection by ESCOM officials for commissioning the project, after receipt of work completion report from the consumer.	ESCOM	Within 5 (five) working days from the receipt of work completion report, after ensuring satisfactory

		<p>completion of work.</p> <p>If the plant is not commissioned within 5 days from the date of work completion report, the concerned officer shall be liable to pay penalty of Rs.1000 per day, till the date of commissioning, to the applicant.</p> <p>After five days of work completion, in case the plant is not commissioned, the consumers are entitled to deemed generation benefit.</p>
Commissioning of Rooftop Solar System	Consumer/ ESCOM	Within six months from the date of approval or deemed approval of PPA.
Billing Process	ESCOM	30 days from the date of commissioning of the Solar plant.

33. Billing Procedure:

- a. The consumer shall receive a monthly net import/export bill indicating either net export to the grid or net import from the grid.
- b. "Import"- means energy supplied by the GESCOM grid.
- c. "Export"- means energy delivered to the GECSOM grid.
- d. The meter reading has to capture the present reading of unidirectional meter provided at solar side.
- e. Solar side meter reading is under only for MIS report (to measure the quantum to generation) and shall not be used for billing purpose.
- f. The meter reader has to capture import & export energy and other billing parameters recorded by the bi-directional meter.
- g. In case of net import bill, the consumer shall pay the same as per existing tariff.
- h. In case the export energy is more than the import, AEE, O&M sub-division will arrange for the energy exported as per the KERC approved tariff through NEFT.
- i. Minimum charges/Electricity dues/statutory levies, if any, shall be adjusted against the energy purchase bill.
- j. The amount payable by the GESCOM to the Seller for energy injected to the GESCOM grid (excluding self-consumption) during

the billing period become due for payment, which shall be settled within 30 days from the date of meter reading and credited to the bank account through NEFT.

Yours sincerely,

(Handwritten signature)

**Chief Engineer Electy.,
(Operations),
Corporate Office,
GESCOM, Kalaburagi.**

Copy to: -

- 1) Sr.PS to MD for information and to place the subject before the Managing Director.
- 2) Sr.PS to Director Technical Corporate Office GESCOM Kalaburagi.
- 3) The Chief Engineer Electy., O&M Zone, GESCOM, Kalaburagi/Ballari, for information and needful.
- 4) All the Superintending Engineer Ele., O&M Circle, GESCOM. Kalaburagi/Ballari Zone, for kind needful.
- 5) All the Executive Engineer El., O&M Division, GESCOM Kalaburagi/Ballari Zone, for kind needful.
- 6) All AEE O&M Sub-Division GESCOM, Kalaburagi/ Ballari Zone, For kind needful.
- 7) MF/OC