

**TAMILNADU GENERATION AND DISTRIBUTION CORPORATION LIMITED
ABSTRACT**

NCES – Processing of applications for installation of Solar Roof Top in H.T Premises –
At present received at CE/NCES - Decentralisation –Powers delegated to Superintending
Engineers of EDC- Procedure to be adopted – Approval –Accorded –Reg.

(TECHNICAL BRANCH)

Per (CMD) Proceedings No:198,

Dated: 14.09.2023
Sobhagridhu, Avani-28.

Thiruvalluvar Aandu-2054.

- Read:** 1. TNERC(Grid Interactive Solar PV Energy generating Systems) (GISS)
Regulations, 2021.
2. Hon'ble TNERC Generic Tariff Order for Grid Interactive PV Solar Energy
Generating System (GISS) Order No. 8 of 2021 dated 22.10.2021.
3. Note order approval of CMD/TANGEDCO dt.13.9.2023

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PROCEEDINGS:

The applications seeking approvals for installation of Solar Roof top within
the H.T premises are at present being processed and sanction accorded by Chief
Engineer/NCES office.

However in order to promote solar energy and to process the applications
in a faster manner , approval is hereby accorded for decentralizing the procedure
and powers accorded to Superintending Engineers of the respective EDCs for
processing of solar roof top capacities ranging from 1 KW to 999 KW in respect of
H.T services.

Hence forth the applications seeking approvals for installation of solar roof
top within the H.T service premises shall be received by the jurisdictional
Superintending Engineers '**THROUGH ONLINE MODE**' only and the following
procedure shall be adopted for processing the applications :

1.The application seeking approval for installation of solar roof top within the H.T premises has to be processed based on the Hon'ble TNERC GISS order No.8 of 2021 dt. 21.1.2021 along with its amendments if any.

2.Applications shall be received from the prospective consumers in the prescribed format (Annexure I) at the jurisdictional Circle office ie., by Superintending Engineer/EDC.

3.Necessary payment advice in the prescribed format (Annexure –II) has to be given to the applicant within three days from the date of receipt of application. As per the existing Hon'ble TNERC rules and regulations, the following fees shall be adopted

Sl.No	Capacity of solar roof top plant	Registration fess
1.	Upto 500 KW	Rs. 5,000/- + GST
2.	Above 500 kW and upto 999 kW	Rs. 10,000/- + GST

4. On the basis of payment priority, the concerned EE/O&M may be instructed to inspect the site and submit field feasibility report within one week as per prescribed format (Annexure III).

5. Based on the Field report, Noted For Record (NFR) (Annexure –IV) may be issued to the applicant for erection of solar power plant on submission of all required documents.

6. Further SE/EDC shall raise separate demand for providing bi-directional meter based on field conditions, if necessary.

7. The consumer shall also be advised to provide generation meter of adequate capacity for levy of network charges.

8.On receipt of intimation from the applicant for completion of solar plant, inspection shall be done by territorial EE/MRT wing and submit Inspection report within one week to the concerned SE/EDC .Inspection report shall include all rules

and regulations prescribed in GISS order dt. 21.10.2021 including safety certificate of CEIG, installation of generation meter etc.

9. Based on the MRT report, SE/EDC shall issue the "Tie-up approval" (Annexure –V) so as to commission the roof top solar power plant with Grid.

10. Synchronization of the solar roof top power plant shall be done by concerned EE/O&M in the presence of EE/MRT within three days from the issue of Tie up approval and agreement shall be executed in the prescribed format with the consumer (Annexure –VI).

11. While commissioning, it shall be ensured that the existing HT service has to be upgraded to Solar service and necessary billing mechanism to be adopted as per the TNERC guidelines.

12. On successful commissioning of the service a report as per the format (Annexure –VII) shall be sent to Chief Engineer/NCES.

Sd/-14.09.2023.
CE/NCES.

Encl: Annexure I to VII.

To

The Director/Generation/TANGEDCO, Chennai-2.

Copy submitted to the Chairman-cum-Managing Director's Table.

Copy submitted to the Managing Director/TANTRANSCO, Chennai-2

Copy submitted to the Director/Distribution/TANGEDCO, Chennai-2.

Copy submitted to the Director/Finance/TANGEDCO, Chennai-2.

Copy to Chief Engineer/NCES, Chennai-2.

Copy to Chief Engineer/Distribution/Chennai North, Chennai South, Coimbatore, Karur,
Thiruvannamalai, Tirunelveli, Vellore, Trichy, Villupuram, Erode

Copy to Chief Engineer/IT, Chennai-2.

Copy to Chief Engineer/Personnel/Administrative Branch/Chennai.

Copy to the Chief Financial Controller/Revenue and General/TANGEDCO, Chennai-2.

Copy to the Superintending Engineer/NCES/Tirunelveli.

Copy to the Superintending Engineer/NCES/Udumalpet.

Copy to the Superintending Engineer/ Information Technology-1, Chennai.

Copy to the Chief Internal Audit Officer/Audit Branch/TANGEDCO.

Copy to the Assistant Personnel Officer/Tamil Development for publication in TANGEDCO, TANTRANSCO and TNEB Ltd Bulletin (2 Copies).

Copy to BP Section, O/o. CE/Personnel,Chennai-2.

Copy to stock File.

ANNEXURE –I

Application Form for Installation of Grid- Connected Solar PV Energy Generating System

To:
The Section Officer/Designated
Officer Distribution Licensee
[name of office]

Photo of
applicant(s)

- I. I / We herewith apply and request for Grid – Connected Solar PV Energy generating system to be connected to the service connection of following details:

1. Name(s) of applicant(s) in full	
2. Address of the premises at which the solar energy generation system is to be installed	
3. Address for communication	
4. Service connection number	
5. Service connection tariff	
6. Sanctioned Load / Contracted Demand	
7. Mobile number(s)	
8. Email ID	

9. Proposed AC capacity of the solar system to be installed	
10. Roof Top or Ground Mounted	
11. Net Metering / Net Feed-in / Gross Metering	
12. Solar grid inverter make, type and capacity	
13. Solar grid inverter has automatic isolation protection (Y/N)?	
14. Has a Solar Generation Meter been installed (Y/N)?	
15. Make, capacity, Sl.No of the Generation meter	
16. Expected date of commissioning of solar PV system.	

- II. I / We agree to pay the required charges as demanded in accordance with the Rules, Codes and Regulations.
- III. I / We agree to install the plant in accordance with the protection and Safety Standards as mandated in the Regulations relating to Safety.
- IV. I / We agree to enter into the agreement as per the Regulation.
- V. I agree to bear the entire cost of erection of separate service line, to inject the total generated power into the grid in case of gross metering arrangement.

Date:

Name(s) :
Signature(s) :

**Grid – Connected Solar Energy Application
Acknowledgement**

Received an application for Grid – Connected Solar

Energy Generating System Name(s):

Date:

Service Connection number:

Application Registration No.:

Solar Plant Capacity:

Net Metering / Net Feed-in / Gross Metering :

Name of Officer:

Signature:

Designation/Licensee

List of documents attached with application form (to be uploaded)

1. Copy of ownership / lease deed in case of ground mounted solar energy generating system.
2. Proof of payment of registration fee.
3. Diagram showing the layout of premises, metering location and service line configuration etc., in case of gross metering.

ANNEXURE –II
TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD

From
Superintending Engineer/...EDC

To
Consumer Address

Lr.No.SE/...../EDC...../F HT roof top – M/s (....)KW/D.No. /2023 dated.2023.

Dear Sir,

Sub:EDC-M/s–.....**KW** roof top solar power plant
within the consumer premises located at-
As per GISS Connectivity in consumer's LT network of existing
HT SC No:of SE/.....EDC- Registration fee –
To be paid – Reg.

Ref: 1TNERC (Grid Interactive Solar PV Energy Generating Systems) (GISS)
Regulations,2021.

2.Hon'ble TNERC Generic Tariff Order for Grid Interactive PV Solar Energy
Generating System (GISS) Order No. 8 of 2021 dated 22.10.2021.

3. Hon'ble TNERC Order No 07 of 2022 in T.P No.1 of 2022
Dt:09.09.2022[Effective from 10.09.2022].

4.Circular Memo.No. CFC /REV/FC/REV/ AO/REV/AS.3/ TF.OrderD.492 /22
dated 24/9/2022.

5.Your letter dated 01.08.2023 received on 03.08.2023 from M/s....

Your proposal seeking approval for the establishment of**KW** Roof top solar
power plant within the consumer premises located atthrough LT side
of existing HT SC No:..... SE/.....EDC has been received vide ref (5)
above.

Now in view of the TNERC Grid Interactive Solar PV Energy Generating Systems
(GISS) Regulations,2021 cited 1st above and subsequent to the Hon'ble TNERC Generic
Tariff Order for Grid Interactive PV Solar Energy Generating System (GISS) Order No. 8

of 2021 dated 22.10.2021, vide reference 2nd cited above, you are requested to make the following payment within one month for taking further action:

Sl.No.	Description	A/c Head	Amount in Rs. P.
1.	Registration fee	62.363	Rs./-
2.	GST 18% of Registration fee	46.941 & 46.942	Rs......./-
Total			Rs./-

Payment is to be made online either through DD/RTGS / NEFT mode only from the Bank Account of the applicant to whom the demand letter is addressed, favoringas per details below.

Name of the beneficiary
Address:	
<u>Bank particulars:-</u> Bank Name: Bank Address:	
9 Digit MICR code of the bank branch	
Bank Account No:	
11 Digit IFC code of beneficiary branch	
Permanent Account No.(PAN)	

After making payment, the scanned copy of the UTR number along with the details of item wise payment made with its GST portion, as per format annexed herewith shall be communicated immediately by **email to the mail id** **The above bank details are to be used exclusively for this purpose only and not for any other transaction.**

As per the new guidelines issued by the Govt. of India, the GST E-INVOICE has to be generated from the GST portal within 30 days from the date of such payments and will attract penalty if generated after 30 days.

Further, it is requested to furnish the following documents

- 1) Latest copy of HT bill
- 2) DPR of the Solar Project with all technical details, layout details, electrical diagram, space utilized etc.
- 3) Time line to complete the project
- 4) Proof of Ownership of the premises by the entity
- 5) No due certificate from the EDC in which HT service is located.
- 6) GST particulars of the consumers
- 7) The filled in application as per the format enclosed.
- 8) Billing under: Net-feed-in/Gross Metering.

On receipt of payment details, GST particulars and on receipt of documents mentioned above along with the duly filed application, further action will be taken in this regard. Further the approval is subject to only the technical feasibility to connect your GISS taking into account the total solar plants connected to the TANGEDCO's feeding substation of your HT service as laid down in the GISS regulation.

Yours faithfully,

Superintending Engineer/EDC

Encl : Format – 1No.

Copy to DFC/....., O/o SE/.....EDC.

Copy to Chief Engineer/NCES/Chennai-2.

ANNEXURE-III

TAMILNADU GENERATION & DISTRIBUTION CORPORATION LTD

From
Superintending Engineer/EDC

To
Executive Engineer/O&M

Lr.No.SE/ EDC /F. /D. /2023 dated. . .2023

Dear Sir,

Sub: SE/...EDC -M/s.....– Establishment ofKW grid interactive roof top solar power plant within the company premises located at ----- –Under Net feed-in mechanism through company's LT network of existing HT.SC.No.....in SE/.....EDC– Field report called for – Reg.

- Ref:1. TNERC (Grid Interactive Solar PV Energy Generating Systems) (GISS) Regulations,2021.
2. Hon'ble TNERC Generic Tariff Order for Grid Interactive PV Solar Energy Generating System (GISS) Order No. 8 of 2021 dated 22.10.2021.
3. Letter dated received on..... from M/s.....
4. Lr.No/SE/...EDC /F.M/s...../D.No. /2023 dt.

M/s.has proposed to establishKW LT Grid interactive roof top Solar Power plant within the company premises located at for self-consumption under Net Feed-in mechanism as per the GISS Regulation cited in the reference 1st above.

In order to process the application ofit is requested to furnish the following report after field inspection of the site.

1. Whether the ProposedKW rooftop solar power plant is to be established within the HT consumer of M/s.....and the details of any other solar system existing in the HT premises.
2. Name of the HT feeder feeding M/s.along with the Sub Station feeding the service and Power Transformer capacity of the SS.
3. The details of cumulative capacity of all solar generating system under **NET feed- in** metering mechanism connected to the individual Transformer.
4. No due certificate with respect to any arrear/Court case pending in the HT service
The report is to be sent in the enclosed format after field inspection.

Superintending Engineer/...EDC

Encl : Format

ANNEXURE –IV
TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD

From

SE/EDC

To

Lr. No.SE/.....ED//F HT Roof top- M/s.- KW /D /2023 dated . .2023
Dear Sirs,

Sub : TANGEDCO –EDC - M/s. -
Establishment ofKW AC Ground Mounted Solar PV power within the consumer premises located at- a per Grid Interactive PV Solar Energy Generating System (GISS) Connectivity - consumer side LT network in the existing HT SC No.....of SE/EDC - Issuance of Noted for Record letter – Reg.

- Ref:
1. Your application dt..... Received on
 2. TNERC (Grid Interactive Solar PV Energy Generating Systems) (GISS) Regulations, 2021 dt 02.12.2021.
 - 3.Hon'ble TNERC Generic Tariff Order for Grid Interactive PV Solar Energy Generating System (GISS) Order No. 8 of 2021 dated 22.10.2021.
 4. Hon'ble TNERC Order No 07 of 2022 in T.P No.1 of 2022 Dt 09.09.2022 [Effective from 10.09.2022]
 5. Circular Memo.No. CFC/REV/FC/REV/AO/REV/AS.3/TF.Order

D.492/22,dated 24/9/2022

6. Demand letter reference.....
7. Payment reference
8. Field report reference.....
9. Documents receipt reference

With reference to your application received in the ref cited above and in continuance to the correspondences made in the references cited above your proposal for establishment ofKW AC Roof top Solar PV power plant within the HT SC premises oflocated at.....under Grid Interactive PV Solar Energy Generating System (GISS) is hereby "Noted For Record" by TANGEDCO.

Details of the HT Service connection:

Sl.No	Particulars	Description
1.	Name of the HTSC	
2.	Sanctioned Demand	
3	Name of the SS	
4.	Existing RT SPV plant capacity	
5.	Proposed Roof Top /Ground Mounted/ Capacity	
6.	HT SC No./TF	
7.	Circle (EDC)	
8.	HTSC Feeding feeder Details	

The Registration fee of Rs..... /- was collected vide Document No..... dt is taken into account for the proposedKW of M/s.

This approval is accorded subject to complying with the following technical and other conditions as stated below.

- 1) As per TNERC (Grid Interactive PV Solar Energy Generating System (GISS) Regulation 2021., you have to establish , operate and maintain Roof Top Generating stations.,

- 2) Safety Certificate from the CEIG shall be obtained by the generator before synchronizing the unit with TANGEDCO grid and copy of certificate to be made available to the SE/EDC concerned. You shall arrange for inspection of your solar PV power plant annually by TANGEDCO officials.
- 3) Initial synchronization of the plant with TANGEDCO grid, shall be made under, the supervision of TANGEDCO Engineer, not below the rank of Executive Engineer.
- 4) The proposedKW Solar power plant is to be interfaced at the LT Side of your HT Service connection with necessary breaker, protection and metering arrangement.
- 5) Your Proposal for erection ofKW Grid Interactive PV Solar Energy Generating System (GISS) within the consumer premises atwith connectivity at LT side of your existing HT SC No. of SE/.....EDC is agreed by TANGEDCO.

6) Energy Metering

- 6.1(a) Net feed-in tariff is to be adopted for this case . The energy Meter with Communicable modem is to be installed immediately after the Solar grid inverter. If the eligible consumer is within the ambit of Time –of- Day (ToD) Tariff, the energy meter shall have programmable ToD (Time- of the – Day) registers with a minimum of four energy export ToD registers. The total solar power generated is accounted for feed-in tariff determined by the commission from time to time .The monitory value of the imported energy is debited at retail tariff, the monitory value of exported energy is credited at feed-in tariff. The monitory value of the exported energy is deducted from the monitory value of imported energy to arrive at the net amount to be billed.
- (b) In case of multiple GISS units under one service connection, Individual generation meter for each inverter / set of inverters in each spot/ place / building of the premise shall be installed. The readings of the generation meters shall be added together (both energy and demand recorded for each billing cycle) for arriving one value of total generation to be reckoned as the unit generation and demand reached for the respective billing cycle of the service connection concerned for billing purpose necessary metering

arrangement with Communicable Modem for taking aggregate of all meter reading at a single point is to be made by the consumer.

7) Standards and Technical Requirements

- 7.1. The GISS interconnection with the TANGEDCO grid shall comply with all applicable regulations and standards of the Central Electricity Authority (CEA) ., Grid Codes and the Tamil Nadu Electricity Distribution Code with Latest Amendments.
- 7.2. The solar Plant Capacity Shall not exceed the Sanctioned Load / Contracted Demand.
- 7.3. The Solar Power generator /consumer and equipment shall meet the requirement specified in the CEA's (Technical Standards for connectivity of the Distributed Generation Resources) Regulations. 2013 and as amended from time to time.
- 7.4. The responsibility of operation and maintenance of the solar power plant including all accessories are rest with the solar power generators. The Design and Installation of the GISS should be equipped with appropriately rated protective devices to sense any abnormality in the system and carryout automatic isolation of the GISS from the grid. The Inverters used should meet the necessary quality requirements. The Protection logics should be tested before commissioning of the plant. Safety certificates for the installation should be obtained from the appropriate authorities.
- 7.5. The automatic isolation of the GISS should be ensured for no grid supply and low or over voltage conditions and within the required response time. Adequate rated fuses and fast acting circuit's breakers both on input and output side of the inverters and disconnect/ isolating switches to isolate DC and AC system for maintenance shall be provided, where ever found necessary the consumer should provide for all internal safety and protective mechanism for earthing, surge, DC Ground Fault, Transients etc. as per the CEA regulation / Standards.
- 7.6. The Inverter should be a Sine Wave Inverter Suitable for Synchronizing with the Distribution Licensees Grid.
- 7.7. To prevent back feeding and possible accidents when maintenance works are carried out by TANGEDCO, suitable isolator / isolating disconnect switches which can be locked by distribution licensee personnel should be provided. This is in addition to automatic sensing and isolating on grid supply failure etc., and in addition to internal disconnect switches. In the event of distribution licensee's HT supply failure, the GISS should have

automatic isolation mechanism to prevent any solar power being fed to the HT grid of distribution licensee.

- 7.8 The consumer/Prosumer/Generator is solely responsible for any accident to human being/ animals whatsoever (fatal/non-fatal/departmental/non departmental) that may occur due to back feeding from the GISS when the grid supply is off. The distribution Licensee reserves the right to disconnect the consumer installation at any time in the event of such exigencies to prevent accident or damage to men and material.
- 7.9. The consumer/prosumer/Generator shall abide by all the codes and regulations issued by the CEA/ Commission to the extent applicable and in force from time to time.
The Consumer/Prosumer/Generator shall comply with CEA/TNERC/CEIG/ distribution licensee's requirements to the extent it is applicable with respect to safe, secure and reliable function of the GISS and the grid. The Power Injected into the Grid Shall be of the required quality in respect of wave shape, frequency, nascence of DC components etc.,
- 7.10. The GISS Shall restrict the harmonic generations, flicker within the limit specified in the relevant regulations issued by the Central Electricity Authority.
- 7.11. Any Battery backup shall be restricted to the consumers network and the consumer shall be responsible to take adequate safety measures to prevent battery power/ diesel generator (DG) power/ backup power extending to distribution licensee's HT grid on failure of distribution licensee's grid supply.

8. Energy accounting during meter defect / failure / burnt:

- 8.1. In case of defective/ failure/ burnt condition of any meter, the concerned officer shall replace the meter as specified in the Electricity Supply Code.
- 8.2. The Electricity generated by the RT SPV power plant during the period in which the meter is defective shall be determined based on the readings of the check Meter or the reading / consumption recorded in the inverter.
- 8.3. In Case of Defect of Both meter and Inverter, if the recorded data are retrievable from the internal storage of the meter, billing shall be done accordingly based on the data so retrieved.
- 8.4. In case of data not being retrievable, the consumption during the period which the meter is defective shall be determined as specified in the Electricity Supply Code. The Details of Meter, Nature of Defect, Action taken to retrieve the data and reason for non

retrieval of data shall be documented by a competitive authority and preserved to be produced at any time in future.

9. GENERAL.

- 9.1 The prosumer has to install the solar generation meter at their cost at solar power plant end with communicable modem.
- 9.2. The Solar Plant Capacity in all categories shall be reckoned as the capacity on AC side and not excess than the sanctioned load/demand at any time.
- 9.3. The feed –in price has been determined with 21% CUF taking into account of the AC Output capacity and corresponding capital cost.
- 9.4. Addition of capacity of DC Panels is Left to the option of eligible consumer/prosumer/ generator to the extent of the sanctioned GISS plant capacity (AC output capacity) which will be reckoned by the AC output demand reached/Kwhr consumption and recorded in the Total Generation Meter for the given Billing cycle subject to approval of TANGEDCO and CEIG
- 9.5. GISS - Agreement shall have to be executed with the respective EDC in the format approved by the TNERC as per the GISS regulation.
- 9.6. It is the responsibility of the generator to obtain the required clearances from statutory bodies, before commissioning of your SPG.
- 9.7 It is also to be ensured that harmonics are maintained within the prescribed limit as per the CEA norms to maintain the grid discipline. If the SPG injects the harmonics beyond such stipulated limit, a compensation of 15% of the applicable Generation tariff rate shall be deducted by the TANGEDCO from every Month bill in whose area the plant is located till such time it is reduced within the stipulated limit. The harmonic studies shall be conducted within 3 Months from the date of Commissioning of the solar generating Plant for taking necessary action to limit the level of harmonics as per CEA norms.
- 9.8. The SPG shall ensure that the power factor of the power delivered to the TANGEDCO/TANTRANSCO grid is as per the Hon'ble TNREC/ CEA norms issued from time to time.
- 9.9. The SPG shall make bonafide effort to operate the plant in such a manner so as to avoid fluctuation and disturbances to the TANGEDCO network due to (GISS) operation with the Network.

- 9.10 Necessary device / provisions shall be made to cut out the SPG automatically when the grid supply fails.
- 9.11. The loss if any, due to any damages that may occur to the equipment. Lines of TANGEDCO/TANTRANSCO resulting on account of parallel operation of your SPG shall be made good by you.
- 9.12. You are bound by the provisions contained in the Electricity Act, 2003 and the rules, regulations codes framed there under by the respective authorities and as amended from time to time.
- 9.13. Your proposed 999KW Solar PV Power Plant shall be commissioned and to be synchronized with TANGEDCO grid within 12 Months from the date of issue of this Noted For Record letter. In case of failure to commission the plant within the time the NFR issued stands automatically cancelled without further notice and the Power Transformer Capacity reserved for your GISS will be allotted to the next eligible applicant.
10. Network Charges:
10. 1 Network charges as Stipulated in the Circular memo cited 9th above has to be collected for the total units generated by the generator and to be recovered from every month CC bill
- 10.2 The total units recorded in the meter provided to measure the total generation of solar power plant shall be reckoned for calculation of network charges.
11. After completion of theKW GISS installation, you are requested to inform your work completion report to this office for inspection and submission of completion certificate .
12. After receiving of the Completion Report from the EE/O&M/ Grid Tie-Up Approval will be issued from this office for connecting up of yourKW Roof top solar PV power plant.

Superintending Engineer/EDC.

Copy submitted to the Chief Engineer/Region and Chief Engineer/NCES.
Copy to the Executive Engineer/O&M/..... And EE/MRT..... - for information.
Copy to the Chief Electrical Inspector to Government/Guindy/Chennai.

ANNEXURE -V

TAMIL NADU GENERATION AND DISTRIBUTION CORPORATION LTD

O/o Superintending Engineer/....EDC
TANGEDCO,

Memo.No. SE/.....EDC/...../F- M/s – KW/D _____/2023 dated _____..2023

Sub: TANGEDCO -.....EDC – M/s..... - Establishment of KW Solar roof top PV power plant within the consumer premises of M/s ----- located at-As per Grid Interactive PV Solar Energy Generating System (GISS) Connectivity at consumer's network in the existing HT SC. No of SE/.....EDC – Grid tie up - Approval accorded - Reg.

- Ref
1. Application dt..... received from M/s.....
 2. TNERC (Grid Interactive Solar PV Energy Generating Systems) (GISS) Regulations, 2021 dt 02.12.2021.
 3. Hon'ble TNERC Generic Tariff Order for Grid Interactive PV Solar.Energy Generating System (GISS) Order No. 8 of 2021 dated: 22.10.2021.
 4. Hon'ble TNERC Order No 07 of 2022 in T.P No.1 of 2022 Dt09.09.2022 [Effective from 10.09.2022]
 5. Circular Memo. No. CFC/REV/FC/REV/AO/REV/AS.3/TF. Order D.492/22,dated 24/9/2022
 6. Other correspondences and references

The proposal of M/s..... for the establishment of KW Solar Roof top PV power plant within the consumer's premises of located atas per Grid Interactive PV Solar Energy Generating System (GISS) with connectivity at LT Side of the following HT SC as per terms and conditions of TNERC Order cited 3rd above has been received in the ref cited 1st above,

Details of the HT service Connection

Sl. No.	Name of the captive user	HT SC No.	Circle (EDC)
1.			

"Noted For Record" letter has been issued on in the reference cited above. Subsequently, the consumer has produced the safety certificate obtained from the CEIG in the ref cited above for installation ofKW solar panels and inverters

With regard to the present status of the project, the Executive Engineer /..... has reported vide letter dated that, the proposedKW(AC) solar roof top plant is ready for interfacing with LV side of the HT service with necessary breaker, protection arrangements.

In view of the above, approval is hereby accorded for grid tie up of the KW solar Roof top power plant of M/s.located at..... LV side of the HT.SC. No. of SE/.....EDC with the following conditions:

1. The erection, testing, commissioning and operation of the plant will be governed by the relevant terms and conditions stipulated in the Electricity Act, 2003 and those laid by the Hon'ble TNERC from time to time.
2. TheKW (AC) Solar PV power Plant shall be interfaced at LV side of the existing HT.SC. No of EDC with necessary protection and metering arrangements.
3. TheKW solar power plant shall be commissioned in the presence of Board Engineer not below the rank of Executive Engineer during initial commissioning.
4. Local body clearances wherever found necessary shall be furnished by the company before commissioning of SPV power plant.
5. All protection and other communication facilities as per Board norms may be ensured before synchronizing the unit.
6. M/s. shall be assigned for their 999KW SPV Roof top power plant with a new separate service connection number.
7. A monthly return on energy generated and exported to TANGEDCO grid may be arranged to be furnished to the Chief Engineer/NCES/Chennai -2 by the first week of ensuing month.

8. Energy Metering

- (a) Net feed-in tariff is to be adopted for this case . The energy Meter is to be installed immediately after the Solar grid inverter. with communicable modem
If the eligible consumer is within the ambit of Time –of- Day (ToD) Tariff, the energy meter shall have programmable ToD(Time- of the – Day) registers with a minimum of four energy export ToD registers. The total solar power generated (Gross generation) is accounted for feed-in tariff determined by the commission from time to time. The monitory value of the imported energy is debited at retail tariff. **The monitory value of exported energy shall be credited under feed-in tariff. The monitory value of the exported energy is deducted from the monitory value of imported energy to arrive at the net amount to be billed.**
- (b) In case of multiple GISS units under one service connection, Individual generation meter for each inverter / set of inverters in each spot/ place / building of the premise shall be installed. The readings of the generation meters shall be added together (both energy and demand recorded for each billing cycle) for arriving one value of total generation to be reckoned as the unit generated and demand reached for the respective billing cycle of the service connection concerned For billing purpose necessary metering arrangement with communicable modem for taking aggregate of all meter reading at a single point (Inter connection point of GISS with the grid) is to be made by the consumer.
9. The date of commissioning of the solar power plant may be intimated to the Chief Engineer/NCES.
10. This approval is purely a technical authentication for commissioning of the (GISS) plant in Grid interaction with TANGEDCO grid and the commercial and other terms are not a binding factor which is regulated by the relevant orders.
11. TANGEDCO reserves its right to make any change in the terms and conditions as per the guidelines of TNERC (or) any other statutory authority or for any valid reasons.

12. As per clause 5.2 (u) of the Indian Electricity grid code (IEGC), the company has to adhere the instruction of SLDC/STU for backing down the generation for grid safety aspects.
13. Network charges as applicable as per Circular memo cited 12th above has to be collected for the total units generated (Gross generation) by the generator and to be recovered from every month CC bill.
14. The GISS connectivity Agreement shall be executed with the Superintending Engineer/.....EDC as per the format given by TNERC in the GISS regulation and a copy of the same shall be furnished to this Office.
15. It should be ensured that, every month solar plant meter reading and collection of network wheeling charges are to be done, periodically without any omission.

The receipt of the Memo may be acknowledged to the Superintending Engineer/....EDC.

Superintending Engineer/.....EDC
TANGEDCO

To

The Executive Engineer/ O&M/.....(It is to be ensured that every month the solar generation meter readings is to be taken and network charges collected.)

Copy submitted to the Chief Engineer/Distribution/.....Region and Chief Engineer/NCES for information

Copy to Executive Engineer/MRT.

Copy to the Chief Electrical Inspector to Government/Guindy/Chennai.

ANNEXURE VI

**Grid Interactive Solar PV Energy Generating System (GISS)-
Agreement**

This Agreement is made and entered into at (location) on this (date).....day of (month)..... of.....(year) between the Eligible consumer/ prosumer / generator, residing at (address) as first party.....

.....
.....
.....

AND

.....Distribution Licensee (herein after called as Licensee) and having its registered office at (address).....as second party of the agreement

And whereas, the Licensee agrees to permit to connect the eligible consumer's/ prosumer's /Generator's GISS (Grid Interactive PV Solar Energy Generating System) of Contracted Capacity of watts at the premises ofand as per conditions of this agreement and regulations / orders issued by the Tamil Nadu Electricity Regulatory Commission, from time to time for Net Metering / Net Feed-in / Gross Metering Mechanism.

Both the parties hereby agree to as follows:

1. Eligibility

Eligibility for Net Metering / Net Feed-in / Gross Metering shall be as specified in the relevant Regulations / Codes / Orders of the Tamil Nadu Electricity Regulatory Commission as amended. Eligible consumer /prosumer /generator is required to be aware, in advance, of the standards and conditions with which his system has to operate safely with coupled integration with the grid / distribution system of the Licensee.

2. Technical and Interconnection Requirements

The eligible consumer/prosumer/generator agrees that his GISS plant /station shall conform to the standards and requirements specified in the following Regulations and codes as amended from time to time.

- (i) CEA's (Technical Standards for connectivity of the Distributed Generating Resources) Regulations, 2013.
- (ii) Central Electricity Authority (Installation and Operation of Meters) Regulation, 2006.
- (iii) Central Electricity Authority (Measures of Safety and Electric Supply) Regulation,

2010.

- (iv) Tamil Nadu Electricity Regulatory Commission's (Grid Interactive Solar PV Energy Generating Systems) Regulation, 2021
- (v) Tamil Nadu Electricity Distribution Code.
- (vi) Tamil Nadu Electricity Supply Code.

Eligible consumer/prosumer/generator agrees that he has installed or will install, prior to connection of GISS to Licensee's distribution system, an isolation device (both automatic and inbuilt within inverter and external manual relays) and agrees for the Licensee to have access to and operation of this, if required and for repair & maintenance of the distribution system.

Eligible consumer/ prosumer/ generator agrees that in case of a power outage on Licensee's system, GISS will shut down, automatically and his plant will not generate power.

All the equipment connected to distribution system must be compliant with relevant international (IEEE/IEC) or Indian standards (BIS) and installations of electrical equipment protective devices, earthing standard etc., must comply with Central Electricity Authority (Measures of Safety and Electricity Supply) Regulations, 2010 as amended from time to time.

Eligible consumer/Prosumer/generator agrees that Licensee will specify the interface / interconnection point and metering point.

Eligible consumer/ prosumer / generator and licensee agrees to comply with the relevant CEA regulations in respect of operation and maintenance of the plant, drawing and diagrams, site responsibility schedule, harmonics, synchronization, voltage frequency, flicker etc.

Due to Licensee's obligation to maintain a safe and reliable distribution system, eligible consumer/prosumer/generator agrees that if it is determined by the Licensee that eligible consumer's/ prosumer's/ generator's GISS either causes damage to and / or produces adverse effects affecting other consumers or Licensee's assets, eligible consumer/prosumer/generator will have to disconnect his GISS immediately from the distribution system upon direction from the Licensee and correct the problem at his own expense prior to a reconnection.

2.8 Both parties of this agreement are mandated by the Tamil Nadu Electricity Regulatory Commission's (Grid Interactive Solar PV Energy Generating Systems) Regulation, 2021 and all relevant regulations, codes and orders of the Tamil Nadu Electricity Regulatory Commission.

3. Clearances and Approvals

The eligible consumer/ prosumer/generator agrees to obtain all the necessary approvals and clearances (environmental and grid connected related) before connecting the GISS to the distribution system.

4. Access and Disconnection

The eligible consumer/ prosumer/generator shall provide access to Licensee to metering equipment and disconnecting devices of GISS, both automatic and manual, at all times.

In emergency or outage situation, where there is no access to a disconnecting means, both automatic and manual, such as a switch or breaker, Licensee may disconnect service to the premises.

Upon termination of this agreement the eligible consumer/prosumer/generator shall disconnect the solar system forthwith from the network of the licensee.

5. Liabilities

Eligible consumer/prosumer/generator and Licensee will indemnify each other for damages or adverse effects from either party's negligence or intentional misconduct in the connection and operation of GISS or Licensee's distribution system.

Licensee and eligible consumer/prosumer/ generator will not be liable to each other for any loss of profits or revenues, business interruption losses, loss of contract or loss of goodwill, or for indirect, consequential, incidental or special damages, including, but not limited to, punitive or exemplary damages, whether any of the said liability, loss or damages arise in contract, or otherwise.

Licensee shall not be liable for delivery or realization by eligible consumer/prosumer/generator for any fiscal or other incentive provided by the Central / State government beyond the scope specified by the Commission in its relevant Order.

6. Commercial Settlement

The feed-in tariff contracted to be paid by the Licensee to the eligible consumer/ prosumer / generator under this agreement byMetering mechanism is Rs..... (Rupees.....) as per the orders of the TNERC, Number..... Dated.....

6.2 Metering System, Billing and all other charges and the commercial settlement under this agreement shall be as per the regulations / codes / orders of TNERC amended from time to time.

6.3. The Licensee shall not be liable to compensate the eligible consumer/ prosumer/ generator if his solar system is unable to inject power into Licensee's network on account of failure of power supply in the grid.

7. Connection and Maintenance Costs

The eligible consumer/ prosumer/generator shall bear all costs related to setting up of photovoltaic system including metering and interconnection and infrastructure for power evacuation costs.

The eligible consumer/prosumer/generator agrees to pay the actual cost of modifications and upgrades to the service line/ power evacuation line required to connect GISS in case it is required.

In case of gross metering arrangement, the eligible consumer/ generator shall bear entire cost of erection and maintenance of separate service line to be laid to evacuate its total generated power into the grid.

8. Period of Agreement and Termination

This agreement shall be for a period of twenty five years, but may be terminated prematurely by mutual consent.

The eligible consumer / prosumer/ generator can terminate agreement at any time with Licensee by providing 90 days prior notice.

Licensee has the right to terminate agreement on 30 days prior written notice, if eligible consumer/prosumer/generator breaches terms of this agreement and does not remedy the breach within 30 days from the date of receiving written notice from the Licensee.

Licensee has the right to terminate agreement after giving 15 days' notice in case the eligible consumer /prosumer/ generator fails to pay his dues in a timely manner or indulges in any malpractices.

Eligible consumer/prosumer/generator agrees that upon termination of this agreement, he must disconnect the GISS from Licensee's distribution system in a timely manner and to Licensee's satisfaction.

In the witness, whereof of Mr. for and on behalf of (Eligible consumer/prosumer/generator)

and Mr. for and on behalf of..... (Licensee) sign this agreement in two originals.

Eligible consumer/prosumer/generator

Distribution Licensee

Name

Name

ANNEXURE –VII
COMMISSIONING REPORT FOR THE SOLAR ROOF TOP PLANT IN HT CONSUMER PREMISES

Sl.No	Description	Details
1.	Name of the H.T Service	
2.	Address	
3.	Sanctioned Demand	
4.	H.T Service No	
5.	Circle/Division/Sub division/Section	
6.	Capacity of the solar plant installed now	
7.	Capacity of the solar plant already installed if any	
8.	Total capacity of the solar plant in the premises	
9.	Connectivity	Net feed-in/gross metering
10.	Bi-directional meter details with capacity	
11.	Meter details for assessing generation of the solar plant (generation meter details with SC No. details)	
12.	Total capacity of the solar modules	
13.	Total capacity of the inverter provided	
14.	CEIG safety certificate details	
15.	Date of synchronisation of the solar roof top plant with the grid	
16.	Any other details	

Exe. Engineer/MRT

Exe. Engineer/O&M