



ಬೆಂಗಳೂರು ವಿದ್ಯುತ್ ಸರಬರಾಜು ಕಂಪನಿ ನಿಯಮಿತ

Bangalore Electricity Supply Company Limited

(wholly owned Government of Karnataka undertaking)

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Ref No. : BESCOM/BC-51/GM(DSM)/2026-27/CYS- 22

Encl : Common SOP for DSPV Projects under VNM & GNM, PPA formats for VNM & GNM

Office of the
General Manager (Ele).,
DSM, Corporate Office,
BESCOM, K.R. Circle,
Bangalore-560 001.

Date: 12 MAY 2026

CIRCULAR

Sub: Common Standard Operating Procedure for BESCOM, HESCOM, GESCOM, CESC, MESCOM & HRECS for implementation of Distributed Solar PV Projects(DSPV) under Virtual Net Metering(VNM) and Group Net Metering(GNM) in the state of Karnataka.

Ref:

1. KERC Approval Letter No.KERC/S/F-34/Vol-17/1714 Dated:05.03.2026
2. Common SOP for Implementation of DSPV Scheme Dated:01.12.2025

PREAMBLE:

The Karnataka Electricity Regulatory Commission (KERC) vide its tariff order dated:09.07.2025 has allowed the Virtual Net Metering (VNM) and Group Net Metering (GNM) arrangements for DSPV plants.

As per the Government Order No. ENERGY 346 VSC 2023, Bengaluru, dated 24.05.2024 BESCOM was mandated to develop the procedure and a Common Standard Operating Procedure (SOP) for SRTPV implementation and circulate the same to all ESCOMs for uniform adoption.

In this regard, to enable and encourage the consumers for generating energy by installing DSPV plants under Virtual Net Metering (VNM) and Group Net Metering (GNM) and to streamline the process for hassle free implementation of VNM & GNM, BESCOM had drafted and submitted the Common SOP alongwith draft PPA formats for VNM & GNM arrangements to Hon'ble KERC for approval.

Hence, in continuation the Common SOP dated:01.12.2025 for implementation of Distributed Solar PV Projects(DSPV), this common SOP approved by KERC vide letter under ref(1) is being issued with the step-by-step procedure and related terms & conditions. Further, the KERC has also approved PPA formats for VNM & GNM.

Hence this Circular;

In pursuance of the directions issued by the KERC vide its tariff order dated:09.07.2025, all ESCOMs of the State—BESCOM, HESCOM, MESCOM, GESCOM, CESC, and HRECS—have to adopt and implement the Common Standard Operating Procedure (SOP) for the execution of Distributed Solar PV (DSPV) Projects under VNM & GNM in Karnataka, as enclosed with this circular.

The Common SOP along with the KERC approved PPA formats for VNM & GNM is required to be hosted on their respective official websites of ESCOMs, ensuring its accessibility to consumers, developers, stakeholders and field officials.

Approved by MD, BESCOM

General Manager (DSM)
BESCOM, Bangalore



Copy submitted for kind information to:

1. The Chief Engineer (Operations), Corporate Office, GESCOM, Kalburgi with a request to issue necessary directions for implementation as per this circular.

Copy submitted to:

1. The Chairman, Hukkeri Rural Electricity Co-operative Society(HRECS) with a request to implement the circular.
2. The General Manager (Projects), Corporate Office, CESC, Mysore with a request to implement the circular.
3. The General Manager (Tech), Corporate Office, HESCOM, Hubballi with a request to implement the circular.
4. The Superintending Engineer (Comml), Corporate Office, MESCOM, Mangalore with a request to implement the circular.

Copy for kind information to

5. PS to MD/D(T), BESCOM with a request to place it before the Chair.
6. PS to MD/D(T), HESCOM with a request to place it before the Chair.
7. PS to MD/D(T), MESCOM with a request to place it before the Chair.
8. PS to MD/D(T), GESCOM with a request to place it before the Chair.
9. PS to MD/D(T), CESC with a request to place it before the Chair.



***Common Standard
Operating Procedure for
BESCOM, HESCOM,
GESCOM, CESC, MESCOM &
HRECS for implementation
of Virtual Net
Metering(VNM)and Group
Net Metering(GNM)***

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Note: Except for the terminologies / procedures defined in this VNM & GNM SOP, all other approvals, procedures and documentation shall be as per the common SOP for DSPV plants dated:01.12.2025

COMMON STANDARD OPERATING PROCEDURE FOR IMPLEMENTATION OF DSPV PROJECTS UNDER VIRTUAL NET METERING (VNM) and GROUP NET METERING (GNM) ARRANGEMENTS

Objective:

The Karnataka Electricity Regulatory Commission (KERC) vide its tariff order dated:09.07.2025 has allowed the Virtual Net Metering (VNM) and Group Net Metering (GNM) arrangements.

Hence to enable and encourage the consumers for generating energy by installing DSPV plants under Virtual Net Metering (VNM) and Group Net Metering (GNM) and to streamline the process for hassle free implementation of VNM & GNM, this common SOP has been issued with the step-by-step procedure and related terms & conditions.

Gist of KERC order on VNM arrangements

i. Definition of Virtual Net Metering(VNM): A mechanism whereby entire energy generated/ injected from a Solar Plant with or without Battery Energy Storage System (BESS) installed on Roof of the building/ground within the area of distribution licensee, is exported to the grid and the energy exported is adjusted in more than one electricity service connection(s) of participating consumers belonging to same consumer category located within the area of supply of the distribution licensee.

ii. Eligible Consumers for VNM:

Domestic Consumers, group housing societies, institutions run or managed by charitable Institutions/organisations, government buildings including schools, buildings belonging to local authorities shall only be eligible to install Solar plants under virtual net metering arrangements.

iii. Participating Consumers:

A group of two or more consumer(s) from the same consumer category.

iv. Ratio of procurement:

Participating Consumers under VNM are required to declare their ratio of procurement from the solar plant i.e. each Consumer must declare the share (%) in the energy generated from the solar plant installed under VNM and billing will be done based on the declared share in the application and power purchase agreement.

The Consumer(s) shall have the option to change the share of credit of electricity from solar plant by submission of fresh application for change in the procurement ratio from solar plant once at the beginning of the financial year with an advance notice of two (2) months.

v. Plant size:

Minimum plant size is 5kW and the maximum size shall not exceed the combined sanctioned load or contract demand of all the participating consumers.

vi. Technical Feasibility Analysis:

Technical Feasibility Analysis shall be carried out as detailed below within the time line as specified in the Common SOP for Implementation of DSPV scheme dated 01.12.2025

Sl. No.	VNM Scenario	Grid Configuration	Officers Responsible for Technical Feasibility
1	Single Solar Plant – Multiple Consumers (Same DT)	Common Distribution Transformer (DT)	AEEE of the concerned Sub-Division
2	Single Solar Plant – Multiple Consumers (Same Feeder)	Same 11 kV feeder with different DTs	AEEE of the concerned Sub-Division
3	Single Solar Plant – Multiple Consumers (Same Substation)	Multiple feeders of the same substation	AEEE of the concerned Sub-Division
4	Single Solar Plant – Consumers across Multiple Substations	Multiple substations	AEEEs of the concerned Sub-Divisions (jointly)
5	DSPV with VNM	Consumer DSPV with VNM and participating consumers rooftops (same or different premises within the area of the distribution licensee)	AEEE(s) of the concerned Sub-Division(s), as applicable (jointly where more than one sub-division is involved)
6	Ground-mounted Solar Plant for VNM	Dedicated evacuation point connected to the distribution network	AEEE of the concerned Sub-Division in coordination with the EE (O&M) as applicable

vii. Metering arrangement:

1. At the consumer/prosumer premises, a smart meter shall be installed for the purpose of measurement and accounting of energy availed from the Distributed Solar PV (DSPV) plant.
2. At the DSPV plant location, a smart meter shall be installed to function as the solar generation meter for measurement of total energy generated by the DSPV plant.
3. The metering arrangement for both the consumer/prosumer premises and the DSPV plant location shall be in strict accordance with the Standard Operating Procedure (SOP) dated 01.12.2025, as amended from time to time.

viii. Billing under VNM

1. Billing Cycle

All VNM installations shall be billed on a monthly billing cycle, in line with BESCO's standard billing practices.

2. Meter Reading Synchronization

The solar generation meter installed at the VNM solar plant and the energy meters of all participating consumer installations shall be read on the same meter reading date for the purpose of VNM energy accounting.

3. Apportionment of Solar Energy

The total solar energy generated during the billing period shall be apportioned and credited to the participating consumer(s) in the monthly electricity bills, in the ratio specified in the Power Purchase Agreement (PPA) / VNM Agreement executed between the participating consumer(s) and BESCO.

4. Consumer-wise Billing Methodology

Billing for each participating consumer shall be carried out independently, in accordance with BESCO's Net Billing / Net Metering norms, as applicable, after adjusting the apportioned solar energy against the consumer's consumption for the billing period.

5. Treatment of Surplus / Net Exported Energy

Any net surplus energy, remaining after adjustment of the apportioned solar energy against the monthly consumption of a participating consumer, shall be treated as net exported energy.

6. Treatment of Net Imported Energy

Any import is more after adjustment of the apportioned solar energy against the monthly consumption of the participating consumer, shall be treated as net imported energy. The same shall be billed at the retail tariff rate.

7. Tariff for Net Exported Energy

The tariff applicable for such net exported energy shall be at 75% of the generic tariff applicable to ground mounted Solar Power Projects/ Distributed solar power projects as the case may be as determined by the Hon'ble Karnataka Electricity Regulatory Commission (KERC) for the relevant control period, or as amended by KERC from time to time.

8. Open Access Charges:

When the energy generated and consumed is within the same distribution transformer/11kV feeder, the consumers are exempted from the Open Access charges. However, if energy generated and consumed by the participating consumers are at different 11kV feeder, ESCOMs will levy open access charges as per the relevant Regulations/Orders of the Commission issued from time to time.

9. Other parameters of the bill:

Along with the applicable energy charges, other charges such as fixed/demand charges, fuel and power purchase cost adjustment (FPPCA/FAC), electricity duty, taxes, cess, late payment surcharge, and any other statutory or regulatory levies shall also be applicable, as determined and approved by the Hon'ble Karnataka Electricity Regulatory Commission (KERC) from time to time are applicable.

- 10.** The electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity generation in the similar time blocks in the same billing cycle of the ToD Consumer and normal time block for Non-ToD Consumer.

ix. Application & Facilitation Fees:

The Application and Facilitation Fees shall be levied and collected strictly in accordance with the provisions of the Common Standard Operating Procedure (SOP) dated 01.12.2025, as amended from time to time.

Gist of KERC order on GNM arrangements

i. Group Net Metering:

A mechanism whereby surplus energy generated/ injected from a Solar Plant with or without Battery Energy Storage System (BESS) installed on a roof of the building/ground within the premises at any one of his installations located within the area of the distribution licensee is exported to the grid and the exported energy is adjusted in more than one electricity service connection(s) of the same name and same category located within the area of supply of the distribution licensee.

ii. Eligible Consumers:

Consumers of all categories shall be allowed to install Solar plant under group net metering arrangement.

iii. Participating Consumers:

Eligible Single Consumer with the same name and same tariff category located within the area of the supply of the distribution licensee.

iv. Priority:

The Consumer (Single Consumer) is required to indicate the priority of installations in order of which the solar energy generated needs to be credited.

The priority shall be indicated in power purchase agreement. The consumer has the option to change the priority once at the beginning of each Financial Year with an advance notice of 02 months.

v. Plant size:

Minimum plant size for GNM is 5kW and the maximum size shall not exceed the combined sanctioned load or contract demand of the consumer's installations.

x. Technical Feasibility Analysis:

Technical Feasibility Analysis shall be carried out as detailed below within the time line as specified in the Common SOP for implementation of DSPV scheme dated 01.12.2025

Sl. No.	GNM Scenario	Grid Configuration	Officers Responsible for Technical Feasibility
1	DSPV Plant – Multiple Service Connections(Same DT)	Common Distribution Transformer (DT)	AEEE of the concerned Sub-Division
2	DSPV Plant – Multiple Service Connections (Same Feeder)	Same 11 kV feeder with different DTs	AEEE of the concerned Sub-Division
3	DSPV Plant – Multiple Service Connections (Same Substation)	Multiple feeders of the same substation	AEEE of the concerned Sub-Division
4	DSPV Plant – Service Connections across Multiple Substations	Multiple substations	AEEEs of the concerned Sub-Divisions (jointly)
5	DSPV with GNM	Consumer DSPV with GNM and his participating service connection(s) (same or different premises)	AEEE(s) of the concerned Sub-Division(s), as applicable (jointly where more than one sub-division is involved)

vi. Metering arrangement:

- a) At the consumer/prosumer premises, a smart meter shall be installed for the purpose of measurement and accounting of energy availed from the Distributed Solar PV (DSPV) plant.
- b) At the DSPV plant location, a smart meter shall be installed to function as the solar generation meter for measurement of total energy generated by the DSPV plant.
- c) The metering arrangement for both the consumer/prosumer premises and the DSPV plant location shall be in strict accordance with the Standard Operating Procedure (SOP) dated 01.12.2025, as amended from time to time.

vii. Billing under GNM:

1. Billing Cycle

All GNM installations shall be billed on a monthly billing cycle, in line with BESCO's standard billing practices.

2. Meter Reading Synchronization

The solar generation meter installed at the GNM solar plant and the energy meters of all participating service connections of the consumer shall be read on the same meter reading date for the purpose of GNM energy accounting.

3. Apportionment of Solar Energy

- i. The total solar energy generated during the billing period shall be apportioned and credited to the participating service connections of the consumer in the monthly electricity bills, in the priority specified in the Power Purchase Agreement (PPA) / GNM Agreement executed between the consumer and BESCO.
- ii. The service connection where the solar plant is located shall consume at least 20% of the total energy generated by the solar plant in a billing month. The equivalent units (out of 20% of generated solar power), which are not consumed at source connection, shall be considered as lapsed energy.

4. Consumer-wise Billing Methodology

Billing for each participating service connections of the consumer shall be carried out independently, in accordance with BESCO's Net Billing / Net Metering norms, as applicable, after adjusting the apportioned solar energy against the consumer's consumption for the billing period.

5. Treatment of Surplus / Net Exported Energy

Any net surplus energy, remaining after adjustment of the apportioned solar energy against the monthly consumption of the participating consumer, shall be treated as net exported energy.

6. Treatment of Net Imported Energy

Any import is more after adjustment of the apportioned solar energy against the monthly consumption of the participating

consumer, shall be treated as net imported energy. The same shall be billed at the retail tariff rate.

7. Tariff for Net Exported Energy

The tariff applicable for such net exported energy shall be at 75% of the generic tariff applicable to ground mounted Solar Power Projects/ Distributed solar power projects as the case may be as determined by the Hon'ble Karnataka Electricity Regulatory Commission (KERC) for the relevant control period, or as amended by KERC from time to time.

8. Open Access Charges:

When the energy generated and consumed is within the same distribution transformer/11kV feeder, the participating service connection(s) of consumers are exempted from the Open Access charges. However, if the energy generated and consumed by the participating service connection(s) of a consumer are at different 11kV feeder, ESCOMs will levy open access charges as per the relevant Regulations/Orders of the Commission issued from time to time.

9. Other parameters of the bill:

Along with the applicable energy charges, other charges such as fixed/demand charges, fuel and power purchase cost adjustment (FPPCA/FAC), electricity duty, taxes, cess, late payment surcharge, and any other statutory or regulatory levies shall also be applicable, as determined and approved by the Hon'ble Karnataka Electricity Regulatory Commission (KERC) from time to time are applicable.

10. The electricity consumption in any time block (e.g., peak hours, off-peak hours, etc.) shall be first compensated with the electricity generation in the similar time blocks in the same billing cycle of the ToD Consumer and normal time block for Non-ToD Consumer.

viii. Application & Facilitation Fees:

The Application and Facilitation Fees shall be levied and collected strictly in accordance with the provisions of the Common Standard Operating Procedure (SOP) dated 01.12.2025, as amended from time to time.

PROCEDURE FOR INSTALLATION OF DSPV PLANTS UNDER VNM ARRANGEMENTS

The general work flow to be followed for DSPV application under VNM consists of following stages:

1. Application Registration
2. Providing Feasibility
3. Execution of Power Purchase Agreement
4. Work Approval Intimation
5. Work Completion Intimation
6. Synchronization
7. Accounting & Billing

STEP BY STEP PROCEDURE FOR VNM APPLICATIONS:

Note: Except for the terminologies / procedures defined in this VNM & GNM SOP, all other approvals, procedures and documentation shall be as per the common SOP for DSPV plants dated:01.12.2025.

STAGE -01: APPLICATION REGISTRATION

Responsibility: Consumer

Documents Required: Nil

- a. The consumer shall click the VNM link provided in the online portal of the ESCOMs.
- b. Details required to be entered into portal:
 - o Account Ids of all the participating Consumers.
 - o Ratio of procurement
 - o Details of Single Point of Contact(SPOC)
 - o Proposed DSPV system details:
 - Account ID of the installation where DSPV is proposed (if existing)
 - Type of ownership: Own or Lease

- In case of lease, the lease commencement date, term of lease shall be entered and the lease agreement shall be uploaded
- Location /site address where VNM plant is proposed to be installed.
- Proposed plant capacity
- Latitude & Longitude of Plant location

Application Registration: Upon entering the respective details as mentioned and upon payment of application fee, the application will be registered in the portal. Application No. and Unique ID will be generated in VNM.

Enter Account ID VNM2510011

VNM DSPV Participants Details

Note: All meters must be smart meters. If an existing meter is static, it must be replaced with a smart meter.

Point of Communication: Please enter your Name, Email, and Phone number accurately for effective communication.

Name	Phone Number	Email ID
<input type="text" value="Name"/>	<input type="text" value="Phone Number"/>	<input type="text" value="Email ID"/>

Note: Proposed DSPV System should with in the 11KVA Feeder Line.

Proposed DSPV System Details

Is there an Account ID for the proposed solar installation?

Ownership Type	Name	Latitude	Longitude	Proposed Capacity (kW)
<input type="text" value="Own Land"/>	<input type="text" value="Name"/>	<input type="text" value="Latitude"/>	<input type="text" value="Longitude"/>	<input type="text" value="Proposed Capacity"/>

Pincode

Address

Enter Account ID VNM2510011

Enter account ID

Fetch Account

VNM DSPV Participants Details

Note: All meters must be smart meters. If an existing meter is static, it must be replaced with a smart meter.

Point of Communication: Please enter your Name, Email, and Phone number accurately for effective communication.

Name Phone Number Email ID
Name Phone Number Email ID

Note: Proposed DSPV System should with in the 11KVA Feeder Line.

Proposed DSPV System Details

Is there an Account ID for the proposed solar installation?

-- Select --

Ownership Type Name Latitude Longitude Proposed Capacity (kW)
Lease Land Name Latitude Longitude Proposed Capacity

Pincode Lease Commencement date Term of Lease Lease Agreement
Pincode dd-mm-yyyy Choose File No file chosen

Address



DSPV ONLINE SERVICES

ASSISTANT EXECUTIVE ENGINEER(SLE), C7 SUBDIVISION LOGOUT

Application Info Feasibility PPA Work Completion Commissioning

Application No. VNM2510004

1 Application Details 2 Payment Details

Note: This application is registered under Virtual Net Metering scheme.

VNM Site / Location Details

Account ID	Applicant Name	Subdivision code	Subdivision Name	RR Number	Connection Type	Tariff category
9705018000	SECRETARY,PRESTIGE MONTE CARLO	140041	C7 Subdivision			1LT2A1-N
Applicant Address		Proposed Capacity	Latitude	Longitude	Email ID	Phone
test		40.0	17.56	77.86	test@gmail.com	9611480742

Applicant Shares Details

Account ID	Applicant Name	Subdivision code	Subdivision Name	RR Number	Connection Type	Tariff category
9954062735	MAHAVEER DESIRE FLAT OWNERS ASSOCIATION	140118	N9 subdivision		THREE	Domestic - LT2A
Applicant Address		Sanctioned Load	Shares KW	Shares Percentage	Email ID	Phone
MAHAVEER DESIRE APTS,OLD RAILWAY STATION ROAD,CHIKKANAVARA		0.0	16.0	40	test@gmail.com	9611480742

Account ID	Applicant Name	Subdivision code	Subdivision Name	RR Number	Connection Type	Tariff category
9645208000	SECRETARY,PRESTIGE MONTE CARLO	140041	C7 Subdivision		SINGLE	Domestic - LT2A
Applicant Address		Sanctioned Load	Shares KW	Shares Percentage	Email ID	Phone
APTE, OWNERS						

STAGE -02: FEASIBILITY

Responsibility: Sub division where the plant is located.

- Technical feasibility is mandatory** for all the applications registered under VNM.
- For providing the feasibility, the designated officer shall visit the proposed DSPV plant location and verify technical details and shall issue feasibility report.
- The feasibility report shall include DTC and 11 KV line feasibility.
- The subdivision officer shall download the feasibility report and upload the signed copy in the portal.

Payment of facilitation fees:

After the feasibility approval, the Consumer shall pay the facilitation fees through online portal and PPA stage will be enabled only after payment of facilitation fees.



ASSISTANT EXECUTIVE ENGINEER(ELE), C3 SUBDIVISION LOGOUT

Note : Verify and Approve the Feasibility based on the KEREC Terms and Condition of Virtual Net Metering

Line Feasibility

Yes, All the Participant are in the same feeder line
 No, Participant are in the not same feeder line, hence plant is not fesible

Return

Distribution Transformer Information

DTC location*
DT Code*
DT Capacity in kVA*
Connected Load on DT in kW*
SRTPV capacity already connected in kWp*
SRTPV capacity under progress in kWp*

Feeder Information

Substation Name*
Feeder Name*
Feeder MDM Code
Feeder conductor size in sq mm*
Rated current carrying capacity in Amps*
SRTPV capacity already connected in Amps*
SRTPV capacity under progress in Amps*
SRTPV capacity proposed in Amps*

Feasibility

Feasible Partially Feasible Not Feasible
Remarks not exceeding 1000 characters

Download/Upload

[Download Unsigned Feasibility Report](#)
Signed Feasibility Report (PDF < 2MB)

Submit

(Feasibility is complete only after downloading the unsigned feasibility report and uploading a signed copy of the same)

STAGE -03 – EXECUTION OF POWER PURCHASE AGREEMENT (PPA)

Responsibility: Participating Consumers & concerned officer of DSM Section, Corporate Office.

The PPA shall be executed as per the format approved by KERC for VNM arrangements and PPA shall contain ratio of procurement.

The Power Purchase Agreement has to be executed in Offline mode and then shall be uploaded in portal.

STAGE -04 – WORK APPROVAL INTIMATION

Responsibility: Concerned Officer of DSM Section, Corporate Office, BESCO.

Work approval intimation is auto generated and emailed to registered email after uploading of PPA document.

STAGE -05 – WORK COMPLETION INTIMATION

Responsibility: Consumer

The Consumer shall upload the Work Completion details in online DSPV portal for enabling the sub division office to process the application for synchronization.

The screenshot displays the 'Work Completion' stage of the DSPV ONLINE SERVICES portal. The interface is in a light blue theme with a navigation bar at the top. The main content area is divided into several sections:

- Application Info:** Shows 'Application No. VNM2510003' and 'Feasible Solar capacity in kWp : 40.0'.
- Solar PV Module:** A table with columns: 'Sl. No.', 'Make of the PV Module', 'Type of the PV Module', 'Capacity of each module in kWp', 'No. of Modules', 'Sl. No. of Modules (Column separated)', 'Total capacity of this module, type & capacity', and 'Add/Delete'. Below the table is a 'Total PV Panel capacity (in kWp)' field.
- Inverter:** A table with columns: 'Sl. No.', 'Make of the Inverter', 'Type of the Inverter', 'Capacity of the Inverter (kW)', 'No. of Inverters', 'Sl. No. of Inverters (Column separated)', 'Total capacity of this module, type & capacity', and 'Add/Delete'. Below the table is a 'Total Inverter capacity (in kW)' field.
- Meter Details:** A table with columns: 'Sl. No.', 'Particulars', and 'Main Meter'. It includes fields for 'Sl. No.', 'Type', 'M. No.', 'Phase', 'CT Ratio', and 'M. No.'. Below the table is a 'Date of Test by MTS/Supplier' field and a 'Main Testing Report (PDF max. file size 2 MB)' field with 'Choose File' and 'No file chosen' buttons.
- Declaration:** A checkbox labeled 'I declare that other equipment such as DC/AC Cable, AIS/DC distribution box, Earthing, DC/AC Surge arrester are installed as per Technical Specification'.
- System Installer Details:** Fields for 'System Installer Firm Name', 'System Installer Firm GST Number', and 'Work Declaration Form (Download here)'. Below these fields are 'Choose File' and 'No file chosen' buttons.

At the bottom of the form, there are 'Submit' and 'Clear' buttons.

STAGE -07 – SYNCHRONIZATION

Responsibility: Consumer & ESCOM O&M AEE/EE and MT staff.

Table No.4

Sl. No	DSPV Plant Capacities	ESCOM Officers authorized for synchronization
1	1kW upto 35kW with smart meter	Assistant Executive Engineer(Ele), O & M Sub-Division and MT staff not required.
2	Above 35kW upto 50kWp with smart meter	Assistant Executive Engineer(Ele), O & M Sub-Division in co-ordination with Meter Testing (MT) staff.
3	Above 50kW upto 500kWp static meter	Assistant Executive Engineer(Ele) O & M Sub-Division in Co-ordination with Meter Testing (MT) staff
4	Above 500kWp static meter	Executive Engineer(Ele) O & M Division in Co-ordination with Meter Testing (MT) staff

The synchronization certificate shall be generated in the online portal by Division/Sub Division Officers, where the VNM/GNM plant is located.

Application No. VNM2510003 Feasible Solar capacity in kWp : 40.0

Commissioning Upload SPPA

Note:

1. The Bi-directional meter records solar generation and existing meter records installation consumption in case of Gross metering.
2. 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.

Note: The following verification has to be done scrupulously during field inspection:

1. Verify the sl no. nos of modules and capacity of each panel with agreed capacity in the Power purchase agreement. In case of any variation SPPA shall be made.
2. Verify the details of grid tied inverters and meters.
3. In case any changes / modifications or observations to be made/ attended by the consumer the same shall be returned back to consumer to attend the same (by clicking the return button along with reasons).
4. The SPPA shall be made in case of delay in commissioning.
5. The SRTPV plant shall be synchronized with 5 days from the date of submission of work completion or after attending the observations whichever is later.
6. The other norms of the SRTPV tariff order / Regulation issued from time to time is applicable.

Work Declaration Details

Download

Meter Information**Generation Meter**

Meter make:

Meter phase:

Meter Type:

Serial number:

Meter constant:

Initial reading (Tri vector parameters) Import:

Initial reading (Tri vector parameters) Export:



ASSISTANT EXECUTIVE ENGINEER(ELE), NI SUBDIVISION LOGOUT

Grid Tied Inverter

Sl No.	Make of the Inverter	Type of the Inverter	Input voltage (volts)	Output voltage (volts)	Capacity of the Inverter (kVA)	No. of Inverters	Sl. No of Inverters (Comma separated)	Total capacity of this make, type & capacity	Add	Delete
1	<input type="text" value="1"/>	Central	<input type="text"/>	<input type="text"/>	<input type="text" value="1.0"/>	<input type="text" value="40"/>	<input type="text" value="1"/>	<input type="text" value="40.0"/>	<input type="button" value="Add"/>	<input type="button" value="Delete"/>

Total Inverter capacity (In kVA)

Inspection Details

Pincode:

District of the installation:

Latitude of the installation*:

Longitude of the installation*:

[Locate Latitude & Longitude on Google Map](#)
OR [Use my current location](#)

Whether Anti-islanding feature is in working condition? Yes No

Is DC earthing verified? Yes No

Is AC earthing verified? Yes No

Is LA earthing verified? Yes No

Is AC & DC DB available? Yes No

Is Manual Switch on solar side available? Yes No

Is Relay operated automatic switch at net-meter side available? Yes No

Date of Inspection:

Photo of the plant along with the Prosumer (JPEG file < 2 MB): No file chosen

Date of synchronizing with BESCOM grid:

Synchronization Voltage Level:

Remarks not exceeding 1000 characters

Submit

STAGE -08 – ACCOUNTING & BILLING

Responsibility: AEE, AE (Technical) & AAO of the sub divisions where the participating installations are located.

The VNM installations are to be billed on monthly basis.

- The reading of solar generation meter & meters of participating installations will be taken on the same day.
- The solar energy generated shall be credited in the monthly electricity bills of each participating consumer(s) as per the ratio of procurement from solar plant indicated in the Power purchase agreement entered between the participating Consumer(s) and BESCO.
- Billing for each participating Consumer to be done as per BESCO net billing norms.
- Tariff rate to be considered shall be 75% of generic tariff determined by KERC.

STEP BY STEP PROCEDURE FOR GNM APPLICATIONS:

Note: Except for the terminologies / procedures defined in this VNM & GNM SOP, all other approvals, procedures and documentation shall be as per the common SOP for DSPV plants.

STAGE -01: APPLICATION REGISTRATION

Responsibility: Consumer

Documents Required: Nil

- a. The consumer shall click the GNM link provided in the online portal of the ESCOMs.
- b. Details required to be entered into portal:
 - o Account Ids of all the participating connections of the Consumer.
 - o Details of the Account ID where GNM plant is proposed to be installed.
 - o Type of ownership of the property: own or lease.
 - o Details of the Lease agreement, wherever applicable
 - o Proposed plant capacity
 - o Priority of the participating connection(s).
 - o Latitude & Longitude of DSPV Plant location

Application Registration: Upon entering the respective details as mentioned and upon payment of application fee, the application will be registered in the portal. Application No. will be generated.

Enter Account ID

GNM DSPV Connections
Note: All meters must be smart meters. If an existing meter is static, it must be replaced with a smart meter.

Note: Proposed DSPV System should with in the 11KVA Feeder Line.

Proposed DSPV System Details
 Is there an Account ID for the proposed solar installation?

Sub Division Name Tariff Latitude Longitude

Proposed Capacity (kW) Pincode

Address

Shares Breakdown (calculated in kW)

DSPV ONLINE SERVICES ASSISTANT EXECUTIVE ENGINEER(C&E), C7 SUBDIVISION

Application No. VNM2510004

1 Application Details 2 Payment Details

Note: This application is registered under Virtual Net Metering scheme.

VNM Site / Location Details

Account ID	Applicant Name	Subdivision code	Subdivision Name	RR Number	Connection Type	Tariff category
9705018000	SECRETARY,PRESTIGE MONTE CARLO	140041	C7 Subdivision			1LT2A1-N
Applicant Address		Proposed Capacity	Latitude	Longitude	Email ID	Phone
test		40.0	17.56	77.86	test@gmail.com	9611480742

Applicant Shares Details

Account ID	Applicant Name	Subdivision code	Subdivision Name	RR Number	Connection Type	Tariff category
9954062735	MAHAVEER DESIRE FLAT OWNERS ASSOCIATION	140118	N9 subdivision		THREE	Domestic - LT2A
Applicant Address		Sanctioned Load	Shares KW	Shares Percentage	Email ID	Phone
MAHAVEER DESIRE APTS.,OLD RAILWAY STATION ROAD,CHIKKABANAVARA		0.0	16.0	40	test@gmail.com	9611480742
Account ID	Applicant Name	Subdivision code	Subdivision Name	RR Number	Connection Type	Tariff category
9645208000	SECRETARY,PRESTIGE MONTE CARLO	140041	C7 Subdivision		SINGLE	Domestic - LT2A
Applicant Address		Sanctioned Load	Shares KW	Shares Percentage	Email ID	Phone

STAGE -02: FEASIBILITY

Responsibility: Sub division where the plant is located.

- a) **Technical feasibility is mandatory** for all the applications registered under GNM.

- b) For providing the feasibility, the designated officer shall visit the proposed DSPV plant location and verify technical details and shall issue feasibility report.
- c) The feasibility report shall include DTC and 11 KV line feasibility.

Payment of facilitation fees:

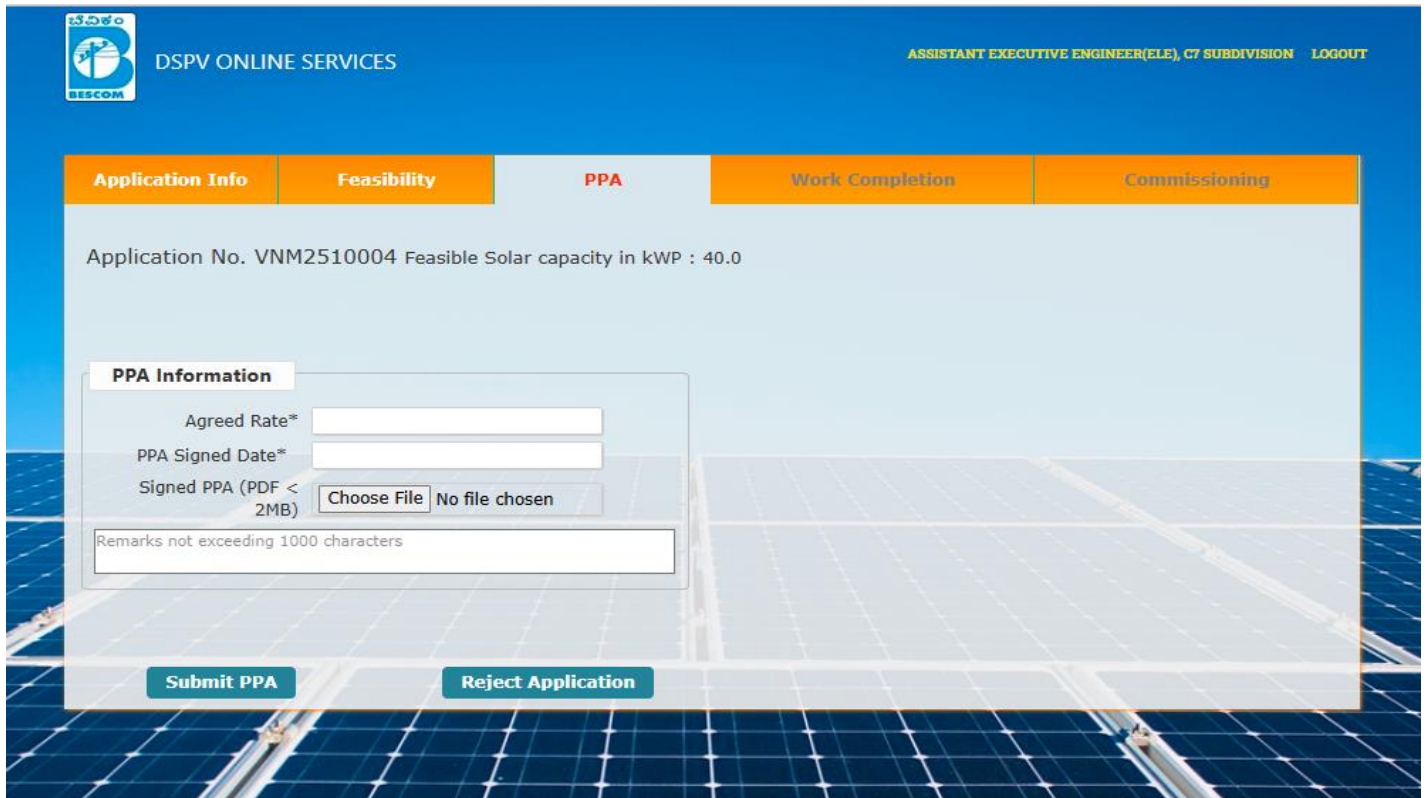
After the feasibility approval, the Consumer shall pay the facilitation fees through online portal and PPA stage will be enabled only after payment of facilitation fees.

STAGE -03 – EXECUTION OF POWER PURCHASE AGREEMENT (PPA)

Responsibility: Participating Consumers & concerned officer of DSM Section, Corporate Office.

The PPA shall be executed as per the format approved by KERC for GNM arrangements and PPA shall contain priority indication.

The Power Purchase Agreement has to be executed in Offline mode and then shall be uploaded in portal.



The screenshot displays the 'PPA' section of the 'DSPV ONLINE SERVICES' portal. The page header includes the BESCOM logo and the text 'DSPV ONLINE SERVICES' on the left, and 'ASSISTANT EXECUTIVE ENGINEER(ELE), C7 SUBDIVISION LOGOUT' on the right. A navigation bar at the top contains five tabs: 'Application Info', 'Feasibility', 'PPA' (highlighted in red), 'Work Completion', and 'Commissioning'. Below the navigation bar, the page shows 'Application No. VNM2510004' and 'Feasible Solar capacity in kWp : 40.0'. A 'PPA Information' form is visible, containing the following fields and controls:

- 'Agreed Rate*' with an input field.
- 'PPA Signed Date*' with an input field.
- 'Signed PPA (PDF < 2MB)' with a 'Choose File' button and 'No file chosen' text.
- 'Remarks not exceeding 1000 characters' with a text area.

At the bottom of the form, there are two buttons: 'Submit PPA' and 'Reject Application'.

STAGE -04 – WORK APPROVAL INTIMATION

Responsibility: Concerned Officer of DSM Section, Corporate Office, BESCOM.

Work approval intimation is auto generated and emailed to registered email after uploading of PPA document.

The screenshot shows the 'Work Completion' stage of the DSPV ONLINE SERVICES portal. The application number is VNR02510003 and the feasible solar capacity is 40.0 kWp. The form includes sections for Solar PV Module, Inverter, Meter Details, Declaration, and System Installer Details. The Solar PV Module section has a table with columns for Sl. No., Make of the PV Module, Type of the PV Module, Capacity of each module in kWp, No. of Modules, Sl. No. of Modules (Comma separated), and Total capacity of this make, type & capacity. The Inverter section has a similar table with columns for Sl. No., Make of the Inverter, Type of the Inverter, Capacity of the Inverter (kWp), No. of Inverters, Sl. No. of Inverters (Comma separated), and Total capacity of this make, type & capacity. The Meter Details section has a table with columns for Sl. No., Particulars, and Main Meter. The Declaration section has a checkbox for 'I declare that other equipment such as DC/AC Cable, AC/DC distribution box, Earthing, DC/AC Surge arrester are installed as per technical Specification'. The System Installer Details section has fields for System Installer Firm Name and System Installer Firm GST Number, and a checkbox for 'Work Declaration Form (Download here)'. The form has 'Submit' and 'Clear' buttons at the bottom.

STAGE -05 – WORK COMPLETION INTIMATION

Responsibility: Consumer

The Consumer shall upload the Work Completion details in online DSPV portal for enabling the sub division office to process the application for synchronization.

STAGE -06 – SYNCHRONIZATION

Responsibility: Consumer & ESCOM O&M AEE/EE and MT staff.

Table No.8

Sl. No	DSPV Plant Capacities	ESCOM Officers authorized for synchronization
1	1kW upto 35kW with smart meter	Assistant Executive Engineer(Ele), O & M Sub-Division and MT staff not required.
2	Above 35kW upto 50kWp with smart meter	Assistant Executive Engineer(Ele), O & M Sub-Division in co-ordination with Meter Testing (MT) staff.
3	Above 50kW upto 500kWp static meter	Assistant Executive Engineer(Ele) O & M Sub-Division in Co-ordination with Meter Testing (MT) staff
4	Above 500kWp static meter	Executive Engineer(Ele) O & M Division in Co-ordination with Meter Testing (MT) staff

The synchronization certificate shall be generated in the online portal by Division/Sub Division Officers, where the GNM plant is located.

DSPV ONLINE SERVICES [APPLY ONLINE](#) [APPLY ONLINE \(POTENTIAL/DESIGN/PLANNING\)](#) [APPLY ONLINE \(PVDC/REGISTRATION\)](#) [VIEW PROFILE](#) [OFFICER LOGIN](#)

Application No. VNM2510003 Feasible Solar capacity in kWp : 40.0

The work of installation of GRTPV system is completed and I would like to submit the following information for your kind approval.

Solar PV Module

Sl. No.	Make of the PV Module	Type of the PV Module	Capacity of each module in kWp	No. of Modules	Sl. No. of Modules (Comma separated)	Total capacity of this make, type & capacity	Add	Delete
1								

Total PV Panel capacity (in kWp) : 0

Inverter

Sl. No.	Make of the Inverter	Type of the Inverter	Capacity of the Inverter (kWp)	No. of Inverters	Sl. No. of Inverters (Comma separated)	Total capacity of this make, type & capacity	Add	Delete
1								

Total Inverter capacity (in kWp) : 0

Meter Details

Sl. No.	Particulars	Make Model
1	Meter	
2	Type	
3	Sl.No.	
4	Phase	
5	CT Ratio	
6	PT Ratio	

Date of Test by RTI Officer: No file chosen

Work Testing Report (PDF max. 1000 x 2 MB) No file chosen

Declaration

I declare that other equipment such as DC/AC Cables, AC/DC distribution box, Earthing, DC/AC Surge arrester are installed as per Technical Specification

System Installer Details

System Installer Firm Name:

System Installer Firm GST Number:

Work Declaration Form (Download here) No file chosen

Grid Tied Inverter

Sl. No.	Make of the Inverter	Type of the Inverter	Input voltage (volts)	Output voltage (volts)	Capacity of the Inverter (kVA)	No. of Inverters	Sl. No. of Inverters (Comma separated)	Total capacity of this make, type & capacity	Add	Delete
1	1	Central			1.0	40	1	40.0		

Total Inverter capacity (in kVA) : 40.0

Inspection Details

Pincode:

District of the installation:

Latitude of the Installation*:

Longitude of the Installation*:

[Locate Latitude & Longitude on Google Map](#)
OR [Use my current location](#)

Whether Anti-islanding feature is in working condition? Yes No

Is DC earthing verified? Yes No

Is AC earthing verified? Yes No

Is LA earthing verified? Yes No

Is AC & DC DB available? Yes No

Is Manual Switch on solar side available? Yes No

Is Relay operated automatic switch at net-meter side available? Yes No

Date of Inspection:

Photo of the plant along with the Prosumer (JPEG file < 2 MB) No file chosen

Date of synchronizing with BESCOM grid:

Synchronization Voltage Level:

Remarks not exceeding 1000 characters:

STAGE -07 – ACCOUNTING & BILLING

Responsibility: AEE, AE (Technical) & AAO of the sub divisions where the participating installations are located.

The GNM installations are to be billed on monthly basis.

- The meter readings of all participating installations of Consumer will be taken on the same day.
- The installation where the plant is installed shall be billed as per BESCOM net metering norms and excess exported energy shall be credited in the electricity bill of each participating connection(s) of the consumer, for each billing cycle as per the priority indicated in the PPA.
- Billing for each participating Consumer to be done as per BESCOM net billing norms.
- Tariff rate for net exported units to be considered shall be 75% of generic tariff determined by KERC.