

FAQ contains two files

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FAQ: Grid Connected Solar Rooftop System

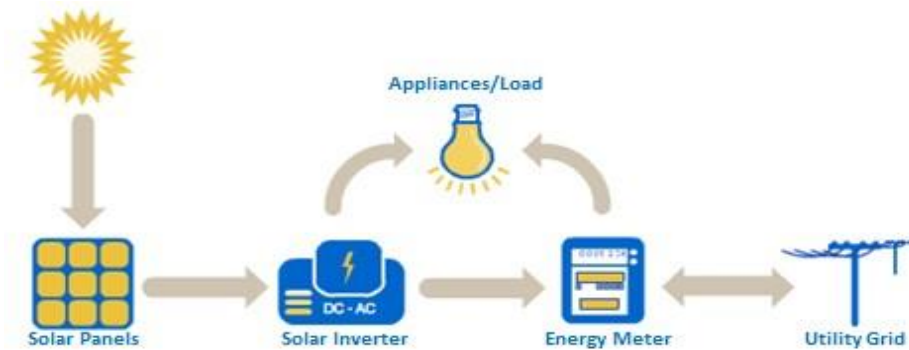
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1 About solar rooftop system

1.1 What is a Grid Connected Rooftop Solar PV System?

In grid connected rooftop or small solar photovoltaic (SPV) system, the DC power generated from solar panel is converted to AC power using power conditioning unit/Inverter and is fed to the grid. Operating modes of grid connected rooftop solar PV system can be explained



1.2 What are the main components of a Grid Connected Rooftop Solar PV system?

- **Solar PV Modules/Solar Panels** – The Solar PV modules/Solar Panels convert solar energy to DC (direct current) electrical energy. They are available in different technologies such as crystalline silicon, thin film silicon, CIGS, CdTe, HIT, etc. Crystalline Silicon Solar PV panels are most commonly used in solar rooftop system. Multiple panels are connected together to form arrays as per the desired capacity of the system.
- **Inverter** – Inverter converts variable DC output of Solar PV panels into AC power. Inverter also synchronizes with the grid so that generated power from the module can be injected into the grid.
- **Module mounting structure** – The module mounting structure, is the support structure that holds the Solar PV panels in place for full system life and is exposed to all weather conditions. These are normally fixed at particular angle and orientation in case of solar rooftop system. But these can also be of type that tracks the Sun, called as trackers.
- **Bi-direction Meters** – Meters are used to record the generation or consumption of electricity. Bi-direction (or Net-Meters) are used to keep track of the electricity that solar PV system injects to utility grid and the electricity that is drawn from the utility grid.
- **Balance of System** – These consist of cables, switchboards, junction boxes, earthing system, circuit breaker, fuses, lightning protection system, etc.

1.3 How much area is required for a 1 kWp rooftop Solar PV system?

A 1 kW rooftop system generally requires 10 sq. metres of shadow-free area. However, actual area requirement may vary depending on the efficiency of solar module, and their placement etc.

1.4 Why do I need shadow-free area for modules?

Solar modules (and cells within) need uninterrupted sunlight to produce maximum electrical energy. With the shadow even on a part of the module, the generation reduces to a great extent thereby wasting installed system capacity. Also, prolonged (regular, though intermittent) shadow on some cells or modules reduces their life substantially and these become useless much before their standard life of over 25 years.

1.5 What types of roofs are suitable for Rooftop solar (RTS) system?

Rooftop solar PV systems can be installed on any type of roof having sufficient load bearing capacity. .

1.6 What is the daily energy generated from a 1 kWp Solar Power Plant?

On a clear sunny day, 1 kWp solar power plant can generate 4 to 5.5 units in a day.

1.7 Will I get constant / same energy from the RTS all year round?

No, the daily energy generation from the RTS shall be dependent on the temperature and solar irradiance among other parameters and these may not be same every day.

1.8 What are the factors affecting generation?

- Plant Location
- Quality of equipment used
- No. of sunshine hours
- Workmanship
- PV module tilt angle and orientation
- Module Cleaning
- O&M activities etc.

1.9 Will I get same annual energy from the RTS for all 25 years?

No. On exposure to sunlight and outside environment, the solar module lose their generation capacity and this is called degradation.

1.10 What are the advantages of Grid-Connected Rooftop Solar System?

- Saving on electricity bill by the consumer.
- Utilization of available vacant roof space, no additional land required.
- Low gestation period.
- No additional requirement of transmission and distribution (T&D) lines.
- Reduces T&D losses as power consumption and generation are collocated.
- Improvement in the tail-end grid voltages and reduction of system congestion.
- Long term energy and ecological security by reduction in carbon emission.
- Better management of daytime peak loads by DISCOM/ utility.
- Meeting of the Renewable Purchase Obligations (RPOs) of obligated entities.

2 Cost of system and subsidies

2.1 What is the average cost of grid connected rooftop solar systems?

The current **benchmark cost** of grid connected rooftop solar systems can be seen in notification section at <https://solarrooftop.gov.in/notifications/view>

2.2 What are the subsidies/ capital support available from the Government?

Central financial assistance (or subsidy) is available **only** for residential sector grid connected solar rooftop projects only. For other sectors e.g. Govt., institutional, social, commercial, industrial etc. CFA is not available.

Central Financial Assistance (CFA)* to Residential sector

- CFA @ 40% of benchmark cost or @40 % of tendered rates (whichever is lower) for capacity up to 3 kWp
- CFA @ 20% of benchmark cost or 20 % of tendered rates (whichever is lower) for capacity beyond 3 kWp and up to 10 kWp
- CFA @ 20% of benchmark cost or @ 20 of tendered rates (whichever is lower) for GHS/RWA capacity up to 500 kWp (limited to 10 kWp per house and total upto 500 kWp)

For calculation of CFA, the PV plant capacity will be inverter capacity or the PV module capacity, whichever is lower. For availing CFA, the PV module and cell shall be manufactured in India only.

2.3 Whether residential consumer has to pay the full cost of the system for residential sector subsidised projects?

No. Consumer has to pay the balance amount after deducting the subsidy (eligible CFA) from the L1 project cost discovered by the DISCOMs. Advisory on scheme is also available at https://mnre.gov.in/img/documents/uploads/file_f-1610949591054.pdf

2.4 At what rate the full cost of the solar rooftop plant be decided?

Consumers are advised to pay only according to the rates (L1 rates) decided by DISCOMs. If any vendors are charging more price than the rates decided by DISCOMs from domestic consumers, in that case consumers are advised to inform DISCOM so that the DISCOM identify and punish such vendors.

2.5 Is there any Subsidy/Support from State Government?

Information on state subsidies can be seen on the website of the concerned electricity distribution company. The rooftop solar portals of electricity distribution companies can be assessed at: https://solarrooftop.gov.in/grid_others/discomPortalLink

2.6 Whether MNRE has empanelled any agency for implementation?

No. MNRE is implementing the programme through power distribution companies/DISCOMs of various States. These DISCOMS are responsible for discovery of rates and empanelment of vendors for implementation of the projects..

Consumers can apply online through the portals of these DISCOMS which can be assessed at: https://solarrooftop.gov.in/grid_others/discomPortalLink

2.7 How should I evaluate vendors offering me RTS? What are the main points of consideration?

The system price, though important, should never be the only factor for deciding vendor. Customer should consider at least the following factors:

- Price of the offered system.
- Warranties of system and components.
- Energy generation estimates and guaranties.
- Service backup and arrangements the vendor has in the area.
- Reference installations in the track record of the vendor – along with those customers’ feedback about system performance and service provided by the vendor

2.8 How can I make payment to the Electricity Distribution Company (DISCOM)?

Since the system is grid connected through net metering, DISCOM will generate bill based upon the reading provided by the net meter installed at the consumer premises. The consumer will have to pay for the net units (total imported units minus exported solar units) only.

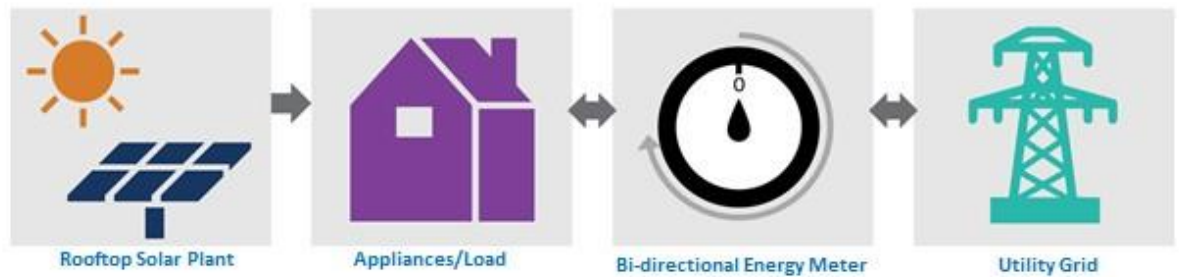
2.9 Can I make my monthly electricity bill ‘zero’ by installing RTS?

This is possible in very rare cases because the consumer shall be required to pay some minimum charges like fixed charges, etc. even if the consumed energy is all self-generated. However, ‘electricity charges’, a major component of the monthly bill, can be reduced to zero by optimally designing and maintaining the RTS. The monthly electricity bill may come to zero in States which give revenue for surplus power generated.

3 Metering arrangement for solar rooftop

3.1 What is net-metering?

All solar PV systems generate power only during daytime when sun is available. In net metered systems, the generated power is utilized for self-consumption, and excess power is exported to the grid as long as grid is available. In case, where solar power is not sufficient due to cloud cover etc., power is drawn from the grid to power the loads. A bi-directional or net meter records the energy flow in both the directions and at the end of billing period net energy used is calculated. The beneficiary has to pay for only the net energy used.



3.2 What is Gross Metering?

In gross metering the power generated from the Rooftop Solar plant is only fed to the grid. The system owner gets paid by the DISCOM for such exported power at a pre-decided tariff.

3.3 What is Net billing?

Connections in net billing RTS are similar to net metering. However, at the end of the billing cycle (normally a month) any excess energy in the grid shall not be carried forward like in net metering, but shall be purchased by the DISCOM as per pre decided tariff. Therefore, energy banking in the grid is only within a billing cycle.

3.4 Can the RTS be installed for only captive use without being connected to Grid?

Yes, the plants which are not connected to the grid are normally called behind the meter plants and MNRE subsidy is not available for such plants even for residential sector. However, it is required to follow rules and regulations specified for this purpose by the state authorities.

4 Business model for solar rooftop system

4.1 What are the models for implementation of Rooftop PV systems?

CAPEX Model: Here, the system is owned by the consumer himself and he bears the cost of the system.

RESCO Model: Here, the entire system is owned by the 3rd party project developer. The consumer only purchases the generated energy by paying pre-decided tariff on a monthly basis as per Power Purchase Agreement (PPA). Responsibility of O&M for the system lifetime (25 years) is also with the developer.

4.2 What is the payback for solar rooftop using various business models?

A simple payback period can be calculated by using rooftop calculator available at following web link: https://solarrooftop.gov.in/rooftop_calculator

5 Installation of solar rooftop system

5.1 How can I apply for installation of solar rooftop system?

Residential consumers and Group Housing Society can apply for installation of solar rooftop system through the online portal of DISCOMs. The link for the online portal of DISCOMs is mentioned- https://solarrooftop.gov.in/grid_others/discomPortalLink

5.2 What is the general procedure for installation of Rooftop Solar system for beneficiary?

The interested beneficiary may install the solar rooftop systems through project developers/system integrators/manufactures etc. after taking necessary approval from DISCOMs within the capacity limit as laid down in the order of respective State Electricity Regulatory Commission/Joint Electricity Regulatory Commission of the respective States/UTs.

5.3 Can I install Rooftop Solar system if I live in a rented house?

The RTS under any framework like net or gross metering can be installed by the electricity consumer. So, if you have electricity connection in your name and you pay regularly the electricity bill in your own name and **also you have the permission of use the roof for solar rooftop installation from the owner**, you can install the RTS.

5.4 What kind of system can be installed in Group Housing Society (GHS)?

With several common rooftops available in a society, there is a great potential for harnessing solar energy through rooftop PV systems. The energy generated from these systems is used to offset the common loads of the society (common lighting, lift, pumps, etc.). A Net Meter shall be provided against, the Single Point Delivery (SPD) common meter of Cooperative Group Housing Society (CGHS). In this, the society ultimately gets benefitted in terms of reduced monthly electricity expenses.

5.5 If I shift my residence or office where RTS is installed, what will happen to the RTS?

The system is easy to be dismantled and reassembled elsewhere. So, it can be shifted to your new residence.

5.6 Whether solar module should be made of indigenously for subsidised projects?

Yes. Only indigenously manufactured PV modules with indigenous solar cell can be used in Solar PV systems power plants for **subsidised** sector projects. For reference, as per the ALMM list 10th March 2021 Clause 4 IV- *Link:-* (https://mnre.gov.in/img/documents/uploads/file_f-1615380939218.pdf).

However, there is **no** such limitation in case the project installed without any subsidy.

6 Operation and maintenance of solar plant

6.1 What is the minimum warrantee period envisaged under the scheme?

Solar PV modules used in solar power plants /systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 12 years and 80% at the end of 25 years. The mechanical structures, electrical works including power conditioners/inverters/charge controllers/maximum power point tracker units/distribution boards/digital meters/switch gear/storage batteries, etc. and overall workmanship of the SPV power plants/ systems must be warranted against any manufacturing/ design/ installation defects for a minimum period of 5 years.

6.2 What are the O&M aspects of a grid-connected rooftop solar PV system?

Compared to most other power generating technologies, solar PV systems have very low maintenance and servicing requirements. However, suitable maintenance of a PV plant is essential to optimise energy yield and maximise the life of the system. Some of the maintenance activities typically may include but not limited to the following:

- Module cleaning is required periodically (dust, bird dropping and other debris can cause decrease in power generation). Periodicity depends on local conditions like dust, birds, air pollution, etc.
- Other items should be checked periodically as stated below:
 - *Checking module connection integrity*
 - *Checking junction boxes / string combiner boxes*
 - *Inspecting mechanical integrity of mounting structures*
 - *Tightening cable connections that have loosened*
 - *Replacing blown fuses*
 - *Repairing lightning damage*
 - *Repairing equipment damaged by intruders or during module cleaning*

6.3 There is presence of monkeys in our area. Would they be damaging the RTS?

The solar modules are made up of toughened or tempered glass top and so are not easily broken due to monkeys or any falling objects. These can be broken if deliberately someone throws stones. Guarding of module surface with wire mesh is one solution for monkey menace, but not recommended because this regularly casts shadow on the modules.

7 General information about solar rooftop

7.1 What is the gross potential of solar power in the country?

India is endowed with vast solar energy potential. About 5,000 trillion kWh per year energy is incident over India's land area with most parts receiving 3-5 kWh per sq. m per day. Based upon the availability of land and solar radiation, the potential of solar power in the country has been assessed to be around 750 GW.

7.2 What is the potential for rooftop solar power in the country?

National Institute of Solar Energy (NISE), An Autonomous Institute under the Ministry of New and Renewable Energy has estimated a potential of 43 GW for Grid Connected RTS in the country.

7.3 What targets has the Government kept for installation of Rooftop Solar Plants in the country?

Government of India has set the target of installing 40,000 MW of Rooftop Solar (RTS) Power by the year 2022. State-wise tentative targets are available in the website link ([State-wise-and-year-wise-target-for-installation-of-40000MWp-GCRT-systems_0.pdf](#))

7.4 What is the State wise breakup of sanctioned capacity under the Phase-II RTS scheme?

The details on capacity sanctioned under Phase-II of RTS scheme can be seen on the following link: https://solarrooftop.gov.in/grid_others/phase2SanctionList

7.5 Which are the States that have Net-metering regulations?

Electricity regulatory commissions have notified the regulations for all States /UTs. Amendments if any may kindly be seen at the websites of the respective State Electricity Regulatory Commission/Joint Electricity Regulatory Commission.

7.6 Approved List of Models and Manufacturers of Solar Photovoltaic Module:

Approved List Models and Manufacturers of Solar Photovoltaic Module (ALMM) is available at https://mnre.gov.in/img/documents/uploads/file_f-1615380939218.pdf .

However, ALMM order in respect of List I (Modules) shall be applicable on all such bids whose last date of bid submission is on or after 10.04.2021

7.7 Want to know more details on rooftop solar for knowledge purpose?

Yes. Ministry of New and Renewable Energy has created a knowledge portal for knowledge dissemination among the Consumers/DISCOM Officials/Bankers/SERCs etc., which can be access by using the URL: https://solarrooftop.gov.in/grid_others/knowledge

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FREQUENTLY ASKED QUESTIONS BY DISCOMs

Grid Connected Rooftop Solar (RTS) Program - Phase II

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A. Central Financial Assistance (CFA)

1. Which agency will be empanelled under the project and what criteria would be allowed to participate in the Bidding Process related to L1?

The para 5.1.6 of the scheme guidelines (<https://solarrooftop.gov.in/notification/Notification-21082019-143301.pdf>) provides procedure in this matter. However, the following two subsequent amendments has been made:

As per MNRE clarification dated 19th February 2021, the Implementing Agency shall allocate a minimum of 10% of the total allocated quantity under the tender to the L1 vendor and in case the vendor does not execute the allocated quantity, his bank guarantee will be encashed and he will be blacklisted for 5 years for all Government tenders (This amendment will be applicable for all the future tenders and tenders which are already floated with bid submission is scheduled on or after 06.03.2021)

As per amendment dated 01.09.2021, all the bidders within the price bracket of (L1 + 25% of L1) shall be empanelled on acceptance of L1 price matching. If total capacity allocated/accepted by these empanelled bidders is less than tender capacity, the option of L1 price matching will be extended to other bidders in the ascending order of price quoted by them till total tender capacity is allocated/ accepted by bidders or all bidders have been given option for L1 price matching, whichever is earlier.

2. How to Calculate the CFA for the Consumer?

Para 5.1.4 of the operational guidelines for the Phase-II of RTS indicate that the CFA will be calculated as a percentage of benchmark cost or cost discovered through competitive process whichever is lower.

The CFA pattern for the residential sector will be as follows: -

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

Note: *The residential sector users may install RTS plant of even higher capacity as provisioned by respective State electricity regulations; however, the CFA will be limited up to 10 kWp capacity of RTS plant.

3. Sample calculation for subsidy – Circular dated 3rd sept. 2019.

As per MNRE circular dated 3rd September 2019, illustration on calculation of subsidy has been provided as follows:

Assuming, MNRE Benchmark cost for RTS system up to 10kW is Rs. 54/- per Wp for 2019-20. Considering cost arrived through tenders is Rs. 50/- per Wp, the subsidy would be worked out on Rs. 50/- per Wp as the discovered rate is lower than benchmark cost. The applicable subsidy for different capacity of rooftop solar systems installed in individual residential households under phase II of Grid Connected Rooftop Solar Programme would be as under:

S.No.	Capacity of RTS Plant	Applicable Subsidy	Total Subsidy
1.	1kW	@40% for 1kW = Rs. 20,000/-	Rs. 20,000/-
2.	2kW	@40% for 2kW = Rs. 40,000/-	Rs. 40,000/-
3.	3kW	@40% for 3kW = Rs. 60,000/-	Rs. 60,000/-
4.	4kW	@40% for first 3kW = Rs. 60,000/- & @20% for balance 1kW = Rs. 10,000/-	Rs. 70,000/-
5.	5kW	@40% for first 3kW = Rs. 60,000/- & @20% for balance 2kW = Rs. 20,000/-	Rs. 80,000/-
6.	6kW	@40% for first 3kW = Rs. 60,000/- & @20% for balance 3kW = Rs. 30,000/-	Rs. 90,000/-
7.	7kW	@40% for first 3kW = Rs. 60,000/- & @20% for balance 4kW = Rs. 40,000/-	Rs. 1,00,000/-
8.	8kW	@40% for first 3kW = Rs. 60,000/- & @20% for balance 5kW = Rs. 50,000/-	Rs. 1,10,000/-
9.	9kW	@40% for first 3kW = Rs. 60,000/- & @20% for balance 6kW = Rs. 60,000/-	Rs. 1,20,000/-
10.	10kW	@40% for first 3kW = Rs. 60,000/- & @20% for balance 7kW = Rs. 70,000/-	Rs. 1,30,000/-

Kindly note that CFA will be calculated on the module capacity or inverter capacity whichever is lower.

There is no limitation of installation of RTS system above 10 kW in residential sector and above 500 kW for residential welfare associations if allowed by respective State Electricity regulatory commissions. However, CFA will be limited to these upper capacities. Further for calculation of CFA for such cases the respective benchmark rate of MNRE above 10 kW or the respective rate discovered above 10 KW by the DISCOMs whichever is lower will be considered for calculation of eligible CFA.

Further, as per clarification dated 19th February 2021 (https://solarrooftop.gov.in/notification/112_notification.pdf), Benchmark cost applicable at the time of issuance of LOAs / Empanelment of developers/vendors / issuance of work order will be applicable for the purpose of calculating CFA for the projects completed within the sanctioned timeline. For projects completed during extended timeline CFA will be calculated on the basis of **95%** of the applicable benchmark cost or 95% of the tendered cost whichever is lower.

In case the beneficiary having same consumer number has availed CFA under the erstwhile phase I of the programme than the CFA will be applicable for the balance capacity under the maximum 10 KW in residential and 500 kW in residential welfare associations. In case the beneficiary already availed the CFA upto or above this capacity in phase I than the said project won't be eligible for CFA. This may be explained as follows:

Residential consumers:

Sr. no	CFA already availed in phase I of RTS programme	Capacity for which CFA can be availed in phase II
1	1 kW	9 kW (i.e. 2 kW at 40 % CFA and rest 7 kW at 20% CFA)
2	3 kW	7 kW at 20 % CFA
3	8 kW	3 kW at 20 % CFA
4	10 kW and above	nil

RWA/GHS

Sr. no	CFA already availed in phase I of RTS programme	Capacity for which CFA can be availed in phase II
1	5 kW	495 kW at 20 % CFA (subject to limit of 10 kW per household)
2	500 kW and above	nil

4. Clarification on Subsidy for Govt. residential sectors

As per MNRE notification dated 30th January 2020 (Point 2), it has been clarified that CFA can be provided for installation of RTS system in the government residence subject to the condition that Government Official is paying for the system and department in-charge of the building (like CPWD or PWD) has no objection for installation of RTS in the residence occupied by the Government official.

5. Whether there is any upper ceiling of L1 rate , i.e. upto the MNRE benchmark cost ?

No. There is no upper ceiling of L1 rate w.r.t. MNRE benchmark cost. L1 rate may be lower/equal/higher than benchmark cost as discovered in the respective tender. However CFA will be calculated based on MNRE benchmark cost or L1 rate whichever is lower.

6. Advisory on RTS

https://solarrooftop.gov.in/notification/118_notification.pdf

B. Advance CFA for DISCOMs

1. How much initial advance CFA can be provided to participating DISCOMS?

DISCOMS will be eligible to avail advance CFA up to 30% of the total amount for the project. As per Para 12 of the MNRE RTS Phase II Guidelines, however the CFA will be calculated @ 20% of benchmark cost or cost discovered through tender whichever is lower for the purpose of advance to DISCOMs which is illustrated as follows:

E.g. say allocated capacity by MNRE to DISCOMs : 10 MW

LoA issued by the DISCOMs : 7 MW out of allocated capacity of 10 MW

	Up to 1 kW	> 1 kW upto 2 kW	>2kW Upto 3kW
Benchmark cost	51100	46980	45760
Rate discovered through tender by DISCOMs	52000	45000	44000

Accordingly, the 1st tranche of advance is generally calculated as follows:

$7000 \text{ kW} \times \text{Rs. } 44,000 \text{ per kW} \times 20\% \times 30\% = \text{RS. } 1,84,80,000/-$

The amount released shall be kept in an interest bearing account and interest accrued, if any, shall be refunded back to the Ministry.

2. What are the documentation requirements to be submitted by DISCOM to MNRE for advance CFA.

Following documents are required to be submitted to the MNRE: -

- Tender Copy.
- Rate discovery letter with period of validity.
- Letter of allocation (LOA) with Validity.
- Vender empanelment letter with Validity Periods.
- PFMS Registration details.
- Savings bank account in a nationalized bank
- Bank Mandate Form in the given format (with bank Seal and Sign) & Cancelled Cheque.
- Utilization Certificate for any pending CFA under any other MNRE Programs (Along with interest accrued, if any).

3. How subsequent CFA (2nd & 3rd Instalments) can be claimed by DISCOMS?

2nd Instalment:

30 % of CFA* after completion of 30% of the sanctioned capacity, submission of online project completion report and utilisation certificates etc. Entry of expenditure in EAT module of PFMS shall also be done.

3rd Instalment:

Balance 40 % after completion of sanctioned capacity in the sanctioned timeline, submission of online PCR, UC, audited statement of expenditure (SOE), Project Completion Certificates etc.

In case of pending UC or non-entry in EAT module, the CFA would not be released to the implementing agency.

4. What are the documentation requirements to be submitted by DISCOM to MNRE for 2nd and 3rd Instalments?

For claiming the 2nd Instalments of CFA from MNRE, the following documents have to be submitted:

- a. Submission of online PCR (minimum (1/3rd of the allocated capacity)
- b. Utilization Certificate of 1st instalment
- c. EAT entry in pfms portal

For the 3rd instalment, following documents have to be submitted in addition to the above documents:

- a. Remaining PCRs in SPIN portal
- b. Audited Statement of Expenditure (SOE)
- c. Project completion certificate etc.
- d. CFA calculation sheet

5. What is the methodology for settlement of capacity allocated to an implementing agency?

The implementing agencies shall inform MNRE regarding capacity commissioned within stipulated timeline and submit relevant documents to the Ministry within 45 days of completion of project time line. After 45 days, **deduction of service charges at the rate of Rs. 1000/- per day** would be levied on the project. In case the submission of project documents is delayed by more than 90 days from the date of completion timeline/last day of financial year, no service charges would be provided for the said project.

C.PFMS Account

1. PFMS registration:

DISCOMs are required to be registered under the PFMS portal (<https://pfms.nic.in/>)

If DISCOM is already registered and has user credential of PFMS

- Login to PFMS
- Go to My scheme section
- Select 'Register new scheme'
- Enter and submit the relevant details (scheme code is 3321).
- Inform MNRE once the process is completed.
- Further DISCOMs are also requested to update agency details in PFMS.
- Submit duly filled and signed and bank verified mandate form (attached) along with a cancelled cheque. (To add bank details in PFMS)

If DISCOM is NOT registered and has NO user credential of PFMS

- Submit duly filled PFMS registration form (attached) for MNRE to create the account at <https://pfms.nic.in>
- Submit duly filled and signed and bank verified mandate form (attached) along with a cancelled cheque. (To add bank details in PFMS)
- Once registered, the scheme registration can be done.

For more queries related to PFMS, you may contact the help desk as given at <https://pfms.nic.in/>

Pictorial PFMS registration guidance.



Public Financial Management System-PFMS
 Welcome: anil
 User Type: AGENCYADH
 Agency: Purvanchal
 Financial Year: 2020-2021

Register New Scheme / Bank Account

Step-2

Scheme: SOLAR POWER-GRID INTERACTIVE [3321] Select Scheme

Select Funding Agency:
 I will receive funds directly from central government:
 I will receive funds directly from state government:
 I will receive funds from this agency: Search

Bank Name: 3 results are available, use up and down arrow keys to navigate.
 STATE BANK OF INDIA Select Bank
 (Enter minimum 4 characters to search Bank)

Branch Address: Search Select Branch
 Branch list will show only 50 branches in List, you can search your branch by address)

Branch Name: Select Branch

Account No.:
 Agency Name As Per Bank:

Agency Account Scheme Component Mapping ← Don't miss to click on it

Save Cancel

Remark:- The amount be kept in an interest bearing account i.e. Saving account

Public Financial Management System-PFMS
 Welcome: anil
 User Type: AGENCYADH

Agency Account Scheme Component Mapping

Scheme Components: Search

Save

Bulk
 Grid connected rooftop and small solar power plant programme
 solar parks
 demo Prog. Grid Interactive Solar Power Projects

Step-3

After that click on Save

2. What is the format for registration of PFMS account?

The following is the format for registration of PFMS (applicable for cases wherein DISCOMs are not having any pfms id)

Instructions

All fields are mandatory. Please contact the concerned person in Ministry/Department from where funds are being released to you for necessary approval. In case any mandatory information is not available with you or registration please contract the concerned Ministry/Department. Unique Agency code is required for Agency communication with Program Division. This will be Agency Identity in system. Unique Code will be required for generating sanction ID, which is mandatory for release of funds to agency.

Agency Details

Type of Registration:

-- Select --

PAN Number:

Not Required

Agency Name:

Act/Registration No:

Date of Registration(DD/MM/YYYY):

27/09/2019

-- Select --

Registering Authority: (If Registering Authority is not available then choose option Others)

State of Registration:

[Dropdown menu]

Central Agency

TIN Number:

[Text box]

Not Required

TAN Number:

[Text box]

Not Required

PAN Verify Status:

Yes NO

GST Number:

[Text box]

(GST Number maximum 15 characters.)

Block No/Building/Village/Name Of Premises:

[Text box]

Road/Street/Post Office:

[Text box]

Area/Locatlity:

[Text box]

City:

[Text box]

State:

--Select--

District:

-- Select --

Pin Code:

[Text box]

Contact Person:

[Text box]

Designation:

[Text box]

Phone No:

+ 91 [Text box] [Text box] [Text box] Alternate Phone Number

(Phone Number Starting with Country Code). Phone number should be between 5 and 12 digits excluding Country Code

Alternate Phone No: + 91 [Text box] [Text box] [Text box]

(Alternate Phone Number Starting with Country Code). Phone number should be between 5 and 12 digits excluding Country Code

Mobile number:

+ 91 [Text box] [Text box]

(Mobile No. starting with Country Code)

Email:

Unique Agency Code:

(Unique Agency Code minimum 4 and maximum 15 characters.)



Word Verification:

Enter the letters as they are shown in the image above (Letters are not case-sensitive)

Next

Refresh

3. Utilisation Certificate and EAT related:

The Concerned DISCOMs will submit the online utilisation certificates in pfms portal as well as in hardcopy against the releases made by MNRE in GFR 2017 format (formats are also available in SPIN portal in download section). Relevant documents e.g. SoE/Refund (if any)/Copy of sanction letter (in case of service charges) will also be required to be submitted.

In addition, the concerned DISCOMs will also require to make entry in the EAT module of pfms portal.

4. Bank Mandate form:

The bank madate form duly verified by bank required to be submitted by DISCOMs. Format is as under:

MANDATE FORM

ELECTRONIC CLEARING SERVICE (CREDIT CLEARING) / REAL TIME GROSS SETTLEMENT (RTGS) FACILITY FOR RECEIVING PAYMENTS

A. DETAIL OF ACCOUNT HOLDER:-

NAME OF ACCOUNT HOLDER	
COMPLETE CONTACT ADDRESS	
TELEPHONE NUMBER/FAX/EMAIL	

B. BANK ACCOUNT DETAILS:-

BANK NAME	
BRANCH NAME WITH COMPLETE ADDRESS, TELEPHONE NUMBER AND EMAIL	
WHETHER THE BRANCH IS COMPUTERISED?	
WHETHER THE BRANCH IS RTGS ENABLED? IF YES, THEN WHAT IS THE BRACH'S IFSC CODE	
IS THE BRANCH ALSO NEFT ENABLED?	
TYPE OF BANK ACCOUNT (SB/CURRENT/CASH CREDIT)	
COMPLETE BANK ACCOUNT NUMBER (LATEST)	
MICR CODE OF BANK	

DATE OF EFFECT:-

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information I would not hold the user Institution responsible. I have read the option invitation letter and agree to discharge responsibility expected of me as a participant under the Scheme.

(.....)

Signature of Customer

Date:
Certified that the particulars furnished above are correct as per our records.

(Bank's Stamp) (.....)

Signature of Customer

Date:

1. Please attach a photocopy of cheque along with the verification obtained from the bank.
2. In case your Bank Branch is presently not "RTGS enabled", then upon its up gradation to "RTGS Enabled" branch, please submit the information again in the above proforma to the Department at earliest.

D. Rooftop Solar Incentives

1. What incentives State DISCOMs will receive under the Phase-II Rooftop Solar Scheme?

MNRE has kept a provision for Incentives to Electricity Distribution Companies (DISCOMs) based on achievement towards initial 18000 MW of grid connected rooftop solar plants, on and above 10% installation on baseline capacity.

2. How DISCOMs can apply for receiving the incentives?

DISCOMs are required to calculate their baseline installation (as on 31.03.2019) data and cumulative total installation (as on 31.03.2020). DISCOMs will then be eligible to receive the incentives if the installed capacity for the FY 2020 is above 10% of baseline installation as per the rate discovered for 10 kW to 100 kWp category of power plant in that year. All the details along with supporting documents are required to be submitted online at MNRE SPIN Portal by using DISCOM's own login credentials.

3. What are the preparatory tasks for DISCOMs before applying online for incentives (2019-20) and (2020-2021)

These are the following steps for preparing to apply for incentives:

1. Develop excel sheet in the format for aggregate installed capacity upto 31.03.2019
2. Develop excel sheet in the format for aggregate installed capacity for FY 2019-20 and FY 2020-2021 separately.

For excel sheet format login to SPIN portal (solarrooftop.gov.in) -> Download -> Excel format of installation for incentive (format provided below)

3. Get the figures of
 - Cumulative Installed Capacity (in kW) of Grid Connected Solar Rooftop Plants which is commissioned upto 31st March 2019 within DISCOM area in kW:
 - Cumulative Installed Capacity (in kW) of Grid Connected Solar Rooftop Plants which is commissioned upto 31st March 2020 within DISCOM area in kW
 - Cumulative Installed Capacity (in kW) of Grid Connected Solar Rooftop Plants which is commissioned upto 31st March 2021 within DISCOM area in kW
 - Copy of Notification on Rate as per Rate discovery (between 10kW to 100kW) during Financial Year 2019-2020 (if discovered by the DISCOM through tender)
 - Copy of Notification on Rate as per Rate discovery (between 10kW to 100kW) during Financial Year 2020-2021 (if discovered by the DISCOM through tender):
4. Prepare base capacity letter duly certified by Head of DISCOM: mentioning the details as mentioned in point no. 3 above
5. Request letter for Incentive 2019-2020

6. Request letter for Incentive 2020-2021
7. Duly filled and signed bank Mandate Form verified by Banks: for format Login to SPIN portal (solarrooftop.gov.in) -> Download ->Bank mandate form

Template 1 : Excel sheet consist of all list of installation Details commissioned upto 31st March 2019 (Following format)

S.No.	Consumer name	Address of RTS installation	Consumer category (Residential/Institutional/Government/Commercial/Industrial/Others, etc.....)	Consumer number as per electricity bill	RTS Capacity installed (kW)	The date on which RTS plant connected to the distribution system and metering initiated (DD/MM/YYYY)*	Whether the project is under subsidy scheme of MNRE (i.e. implemented by SNA/DISCOM/SECI/Expert PSU etc.....) **
		Location	District				Yes/No

Template 2 : Excel sheet consist of all list of installation Details commissioned during Financial Year 2019-2020 (Following format)

S.No.	Consumer name	Address of RTS installation	Consumer category (Residential/Institutional/Government/Commercial/ Industrial/Others, etc.....)	Consumer number as per electric ity bill	RTS Capac ity installed (kW)	Date of installation of RTS plant (DD/MM/YY YY)*
		Location	District			

4. Whether MNRE has any standard format for submission of project installation details?

MNRE has designed standard format (excel sheet) for collection and submission of project installation details, which are readily available on SPIN Portal under “download” dropdown.

5. Are there any deadlines for application of Incentives?

MNRE in its letter to all DISCOMs dated 9th April 2021 has informed that the deadline to apply for the incentives under the Programme for FY 2019-20 is 30th April 2021 and the date for applying for incentives for FY 2020-21 is 30th June 2021.

6. DISCOMs have more than one price discovery by different agencies (i.e. SECI, SNA and DISCOM) in Financial Year, which rate should be applicable for Incentive calculation?

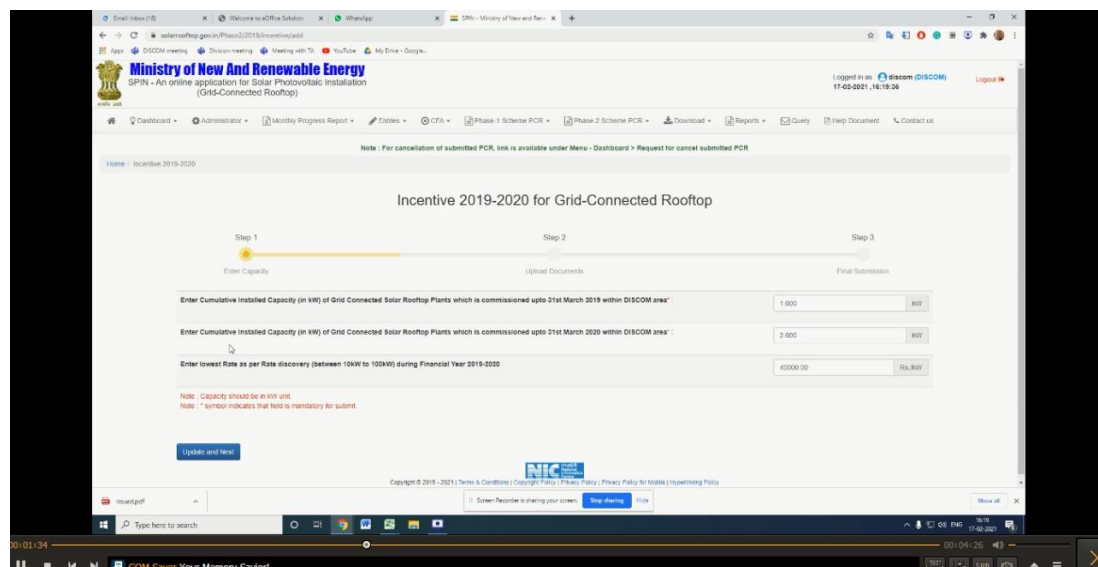
MNRE has kept this field as non-mandatory, DISCOM may not fill the details.

7. What is the formula for calculation of Incentive?

MNRE will calculate the incentive as per the Clause No. 5.2: Incentives to Electricity Distribution Companies (DISCOMs) as detailed in the operational Guidelines on implementation of Phase – II of Grid Connected Rooftop Solar Programme. Please refer to specific clauses 5.2.4 and 5.2.5 for more details. The applicable rate for calculation of incentives will be the lowest of the rates discovered by various States/UTs in that FY or lowest of MNRE benchmark cost of that FY (ref. MNRE notification no. 318/331/2017-GCRT dated 29.06.2021 https://solarrooftop.gov.in/notification/117_notification.pdf).

8. Whether MNRE has developed any Standard Procedure Document on procedure of Incentive Submission?

MNRE has provided guidance for submission of incentive claims, however DISCOMs may reach to their respective Technical Assistance (TA) Programme for further assistance. MNRE has also developed a video on procedure for claim of incentives.



A demo video link is also available as follows:

https://drive.google.com/file/d/17UB7MtROacDzigUbZ_rolOIU9jxrv4gt/view

E. Time extension due to COVID-19

1. What Time Extension has been provided by MNRE for Renewable Energy (RE) Projects considering disruption due to lockdown due to COVID-19?

Blanket Extension

As per the Office Memorandum published by MNRE on dated 9th Feb 2021, it was instructed that all RE projects under implementation as on the date of lockdown, i.e. 25th March 2020, through RE Implementing Agencies designated by the MNRE or under various schemes of the MNRE, shall be given a time extension of 5 (five) months from 25th March 2020 to 24th August 2020. This blanket extension, if invoked by the RE developers, will be given without case to case examination and no documents/evidence will be asked for such extension.

https://mnre.gov.in/img/documents/uploads/file_f-1612877375100.PDF

Project Specific Extension

As per the Office Memorandum published by MNRE on dated 30th Mar 2021, the total extension provided by implementing agencies on account of COVID-19 should in no case be more than 6 months including the 5 months blanket extension given by this Ministry vide its O.M. of 13.08.2020. In case an implementing agency feels that there is a requirement to give extension beyond 6 months, it shall make a reference for consideration of this Ministry with due justification and supporting documents. No such extension shall be granted by the implementing agencies on their own.

https://mnre.gov.in/img/documents/uploads/file_f-1617105004026.PDF

Further Extension:

As per the office order dated 04.04.2021, time extension of 4 months has been accorded to all sanctions issued under RTS Program Phase-II, which were under implementation as on 01.04.2021. The order can be seen at following link:

https://solarrooftop.gov.in/notification/113_notification.pdf

F.Monthly Status Report

1. Where is the monthly status report to be submitted?

The monthly status report is to be submitted on the SPIN portal of MNRE. For submission of the Monthly Status Report, click on the entries tab after logging in and then click on Enter Monthly Status Report to upload the Monthly status report.

2. By when is the Monthly Status Report to be submitted?

The monthly status report of the previous month should be submitted by the 5th of following month i.e. Monthly Status Report for the month of January should be submitted by 5th February.

3. What is the requirement for monthly status report?

The Ministry of New and Renewable Energy (MNRE) on the directives of Hon'ble Minister of NRE is seeking the Monthly Progress Report against the allocated capacity and Web Portal.

4. Who should prepare/approve the monthly status report?

The Monthly progress should be sent with the approval of CMD/MD/Chief Engineer in-charge of Solar/RE in DISCOM or the Director (I/C) in case of State nodal agency.

5. In point 9. of the format “Cumulative capacity installed as on last day of previous month”, what does previous month refer to?

The last of previous month refers to the month for which the status report is being submitted. i.e for the monthly status report of January, cumulative capacity installed on 31st January has to be given.

G.ALMM related

1. What is ALMM?

ALMM stands for ‘The Approved list of Models and Manufacturers’.

2. What is the need for ALMM?

The Solar PV installations are set up for a period of 25 years and Solar PV cells and modules used in the plants require long term warranty. It is thus desirable to ensure that such products are indeed made in units in which production has been claimed.

The reliability of the producer is essential to protect the consumer interests and ensure larger energy security of the country.

Thus in order to address this issue, MNRE issued “Guidelines for enlistment under the Approved Models and Manufacturers (ALMM) for solar PV Modules (requirement for compulsory registration) Order 2019”

3. When was the ALMM released by MNRE?

The first list of ALMM (Modules) was released by MNRE on 10th March 2021.

https://mnre.gov.in/img/documents/uploads/file_f-1615380939218.pdf

Kindly go through MNRE website <https://mnre.gov.in/> regularly for further lists

4. For which projects shall the ALMM be applicable?

The ALMM shall be applicable only on the projects for which the bids are conducted after 30 days of publication of such list, i.e. ALMM order in respect of List 1 (Modules) shall be applicable on all bids whose last date of bid submission is on or after 10.04.2021.

Disclaimer: These FAQs for DISCOMS are for illustrative/reference purposes only and no claim whatsoever would be entertained for any issues/ambiguity arising out of this content. The DISCOMS must go through the scheme guidelines and subsequent amendments in case of any detailed clarifications please.