PM Surya Ghar MUFT BIJLI YOJNA



PM Surya Ghar: Muft Bijli Yojana is your chance to turn your rooftop into a power station—and your electricity bill into zero. No more rising bills—just clean, reliable solar power at your fingertips.

Easy online application at pmsuryaghar.gov.in.



It's time to power your home, your way.

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1. BASICS OF SOLAR

Working of Roof Top Solar

Energy flows from the sun - this is converted to electricity by the RoofTop Solar (RTS) setup, primarily consisting of Solar panels, solar inverter and protection devices.

- 1. Solar energy is captured by the RTS set-up.
- 2. Solar plant will start generating power.
- 3. Your energy demand will be first met by solar power.
- 4. In case of additional energy requirement, power will be drawn from the Grid.
- 5. In case of excess generation, surplus power is fed to Grid.
- 6. Net meter will record both units consumption from the grid as import and surplus generation export to the grid.

On an average, 1 kWp solar power plant generates 3 to 4 units in a day & 100-120 units per month. No units shall be generated in case of cloud cover

Basic components required for RTS System

Following are main components:

- 1. Photovoltaic (PV) Solar Panel
- 2. Solar Inverter
- 3. Panel Mounting Structure
- 4. Wiring
- 5. Net-meter
- 6. Protection devices

The lifespan of solar plant is 25 years & of inverter is 10-12 years

Maintenance required for RTS

There is no special maintenance required for RTS plants except for periodical cleaning /washing of panels. It is preferred to wash/clean the panels once a week for efficient operation of the plant. However, periodicity depends on local conditions like dust, birds, air pollution, etc.

Regarding periodic cleaning of the plant, a separate AMC can be availed from the same or any other installer.

2. BENEFITS OF SOLAR & NET METERING

Benefits of Solar Plant

- 1. Reduction of electricity bill
- 2. Utilization of available vacant roof space, no additional land required.
- 3. Green Energy
- 4. Reduction of air pollution
- 5. Silent & safe operation
- 6. Low Maintenance
- 7. Secondary source of income Any surplus generation at the end of Financial Year is paid at the rate of Average Power Purchase Cost (APPC).
- 8. Individual households may avail Govt. benefits including subsidy.
- 9. Brings you within the subsidy threshold of Delhi Govt.

How generation of plant higher than consumption is beneficial?

- 1. On monthly basis, the generation from the solar plant is adjusted against the consumption.
- 2. In case, generation is higher than consumption, surplus units (exported to Grid) are carried forward to next billing month.
- 3. For any surplus generation accumulated till the end of FY, consumer is paid for those surplus units at the rate of Average Power Purchase Cost (APPC), as approved by DERC in respective tariff order.

Who can apply for Solar Net Metering?

All type of consumers can apply for net metering of solar plant whether Commercial, Institutional. But subsidy is applicable only for residential consumers and RWA/CGHS connections for common facilities.

How will my bill be reduced according to tariff slab? Shall we get the power subsidy of GNCTD if we apply for solar plant?

Suppose you have installed 3kW solar plant at your home. If your bill before solar was 450 units per month you would have paid **Rs.6.5/unit** (Energy charge).

After RTS your monthly generation will be 300 units which will reduce your import units to just 150(450-300 units).

	onsumer on the net units i.e. import from the grid se, the input drawn from grid is less than 200 units ible for power subsidy.
Units imported – 450 units	Net units = Import – Export= 150 units
Units Exported – 300 units	

3. SUBSIDIES [CENTRAL & STATE]

Central & State Subsidies and eligibility

Central subsidy/Central Financial Assistance at

MNRE Portal[https://pmsuryaghar.gov.in]

Central Financial Assistance (CFA) from Ministry of New & Renewable Energy(MNRE) is applicable for grid connected solar power systems for residential (domestic) consumers and GHS/RWA connections (common facilities) only and will only include installations on a roof/terrace/balcony or on top of elevated structures. Special RTS installations such as Building Integrated PV(BiPV) systems shall also be considered eligible for CFA support. Installations under metering mechanisms such as Group Net Metering and Virtual Net Metering are also eligible for subsidy.

Sr.	Type of Residential Segment	CFA	CFA Amount
No			(Rs.)
			#
1	Residential Sector (first 2 kWp of RTS	60% of benchmark cost	60,000/-
	capacity or part thereof)	of 2 kWp	
2	Residential Sector (with additional RTS	40% of benchmark cost	18,000/-
	capacity of 1 kWp or part thereof)	of additional kWp	
3	Residential Sector (additional RTS	No additional CFA	
	capacity beyond 3kWp)		
4	Group housing societies/residential	As per CFA of S. No 2	
	welfare associations (GHS/RWA) etc for	above	
	common facilities including EV charging		
	up to 500kWp(@3kWp per house)		

Benchmark cost considered by MNRE for CFA calculation only. Rs.50,000/kW up-to 2kW plant & Rs.45, 000/kW for plant above 2kW.

For calculation of CFA, the DC capacity of inverter shall be considered irrespective of size of inverter.

For availing CFA, the PV module and cell shall be manufactured in India only i.e. (Domestic Content Requirement) DCR has to be fulfilled.

The consumer shall be eligible for MNRE Central Subsidy only if he gets his plant installed by the empaneled vendors of MNRE only.

State subsidy at State Portal [https://solar.delhi.gov.in]
Capital Subsidy
Capital subsidy is a onetime subsidy given for solar projects at the rate of Rs. 10,000/- per KW up- to a maximum of Rs. 30,000/- per consumer. This capital subsidy is applicable for Residential consumers only. The subsidy will be passed through their first electricity bill post commissioning of RTS system. For Group Housing Societies/RWAs- the capital subsidy is given at rate of Rs.2000/kW for common facilities, including EV charging upto 500 kW capacity (at 3kW per house) with upper limit being inclusive of individual rooftop plants installed by individual residents in GHS/RWA.

GBI- Generation Based Incentive

Generation Based Incentive which is calculated on the basis of cumulative solar units generated in a given month by solar plant installed at consumer premises. GBI payments will be valid for five years from the date of commissioning of the system installed within the operative period of the Policy i.e. 14th March 2024 till 13th Match 2027. The GBI will be adjusted against the electricity bill issued by the DISCOM. The excess GBI amount after adjusting against the electricity bill will be disbursed to the consumer's bank account by DISCOM every month.

Sr. No.	Type of Consumer	Monthly GBI (INR per KWH)
1	Residential (up to 3kWp)	3
2	Residential (Above 3 kWp, and up to10kWp)	2
3	Group housing societies/ Residential Welfare Associations: Up-to 500kW (at 10kW per house)	2
4	Commercial and Industrial (for the first 200 MW deployed)	1

Consumers adopting solar via Community Solar will also be eligible for GBI as per the provision mentioned above. The GBI will be based on the ownership share of the consumer provided the consumer has ownership rights of the RTS.

Applicable subsidy amount is included in cost of plant or not?

No, cost of plant is an upfront cost which is to be paid by consumer at the time of RTS installation. Once the installation is complete, Subsidy is then disbursed by MNRE for which consumer needs to apply in MNRE portal(https://pmsuryaghar.gov.in) & submit his details

After generation of commissioning certificate online, the applicant can raise online subsidy/CFA claim request by providing applicant's bank details along with legible copy of cancelled bank cheque or passbook.

The links for Subsidies can be accessed as per below details:

Link to apply for Central subsidy/CFA at PM Suryaghar Portal	https://pmsuryaghar.gov.in
Link to apply for State Subsidy at State Portal for Non	https://solar.delhi.gov.in
PMSG consumers	

Documents required for availing subsidy (To be submitted by selected vendor post installation)

→ For CFA

- 1. DCR Undertaking
- 2. Cancel cheque
- 3. Connection consumer/vendor agreement
- 4. Plant Photograph
- 5. Electricity Bill

→ For State Subsidy & GBI

- 1. Cancelled cheque
- 2. Consumer electricity bill

4. SAVINGS, PAYBACK & NET METERING

Payback Period

Typically, payback period comes in around 3-4 years depending upon applicable tariff category.

Sample calculator given below for illustrative purpose:

Monthly Consumption	Monthly Bill Before Solar (₹)	Solar Plant Capacity (KWp)	Roof Top Area Required (sq ft.)	Project Cost (₹)	Total Subsidy (Centre+ Delhi Govt) (₹)	Net Cost After 10% Initial Payment and Subsidy	Effective Monthly EMI After Subsidy (₹)	Monthly Bill After Solar	Additional Income Through Monthly GBI (₹)
400 units	₹ 1,500	2 KWp	200	₹ 1,30,000	₹ 80,000	₹ 37,000	₹ 411	₹ 0 (Zero!)	₹ 600
500 units	₹ 3,200	3 KWp	300	₹ 1,95,000	₹ 1,08,000	₹ 67,500	₹ 749	₹ 0 (Zero!)	₹ 900
600 units	₹ 4,500	4 kWp	400	₹ 2,60,000	₹ 1,08,000	₹ 1,26,000	₹ 1,572	₹ 0 (Zero!)	₹ 800
700 units	₹ 5,500	5 kWp	500	₹ 3,25,000	₹ 1,08,000	₹ 1,84,500	₹ 2,302	₹ 0 (Zero!)	₹ 1,000
800 units	₹ 6,500	6 kWp	600	₹ 3,60,000	₹ 1,08,000	₹ 2,16,000	₹ 3,302	₹ 0 (Zero!)	₹ 1,200

- 1. Above values are Indicative for Residential Consumers
- 2. Cost of solar installation is approx. Rs 65,000 per kW (for plants with capacity till 5kW), approx. Rs 60,000 per kW (for plants with capacity from 6kW-10kW), approx. Rs 55,000 (for plants with capacityabove10kW).
- 3. Easy Loans: Avail loans from major banks at 6% interest for upto 10 years
- 4. Minimum Upfront Cost: Pay only 10% of the project cost; the bank will finance the rest

After solar installation, does bill become zero or one has to pay fixed charges?

Even if solar system generates enough to offset the consumption through net metering, fixed charges must still be paid. In case net units i.e import minus export is less than 200 units, the bill becomes zero as per GNCTD Power Subsidy scheme, else consumer needs to pay for fixed charges plus applicable taxes & duties.

For any surplus generation accumulated till the end of FY, **consumer is paid for those surplus units** at the rate of **Average Power Purchase Cost (APPC)**, as approved by DERC in respective tariff order.

Why is it called net meter?

This meter calculates net consumption after import of energy from grid and export of solar energy to grid.

Why to apply for net meter?

To get the subsidy, the consumer needs to have a net metering connection.

Also, the consumer is getting paid for the accumulated surplus units at the end of the financial year at APPC(Average Power Purchase Cost) by BSES.

Note: APPC may vary per financial year.

In case there is no self-consumption by the consumer, all the units generated shall be automatically exported to the grid. Accordingly, the credit for such units shall get carried forward every month &

the finally the payment shall be done at APPC rate at end of FY.

5.REQUIRMENTS FOR SOLAR

How much Area is required to set up the grid connected rooftop solar system? How much Area shall be required for 3kWp plant?

7-8 square meters or 70-80 sqft shadow- free area is required for 1 kWp of RTS plant. Therefore, around 240-300 sqft area shall be required for 3kWp plant.

Tenants can also apply for RTS installation subject to NOC from the owner.

What Documents are required for new Roof Top Solar connection?

Net-metering is applicable against the existing electricity connection only. Initially, following documents are required:

During Application Submission

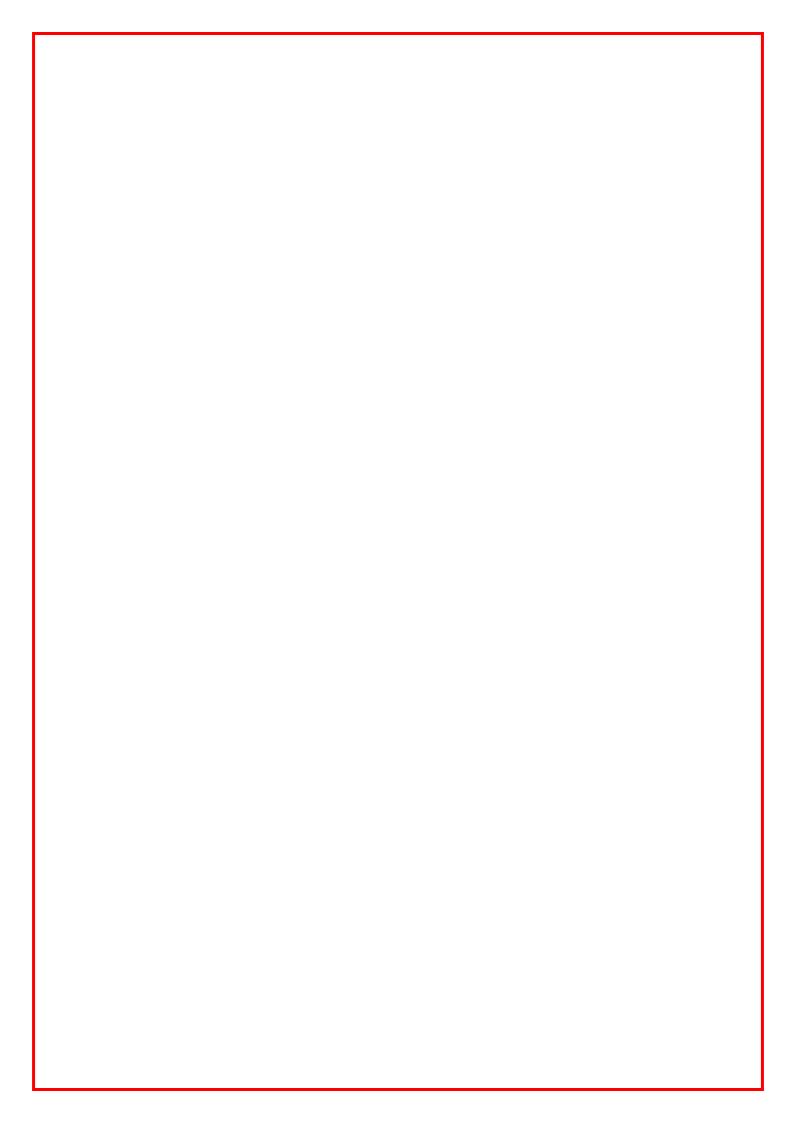
- 1. Online application at https://rts.bsesdelhi.com
- 2. Signature ID Proof of applicant
- 3. Scanned signatures

Post Installation of plant

- 1) SLD (Single Line Diagram) of Solar Plant
- 2) Certificates of Inverter (IEC62116 & IEC61000) & Inverter Data Sheets
- 3) Net Metering Connection Agreement.
- 4) Photograph of ELCB
- 5) Geotagged Photos of Plant

Inspection

- 1) Inspection form
- 2) Serial number of Inverter & Modul



6.VENDOR RELATED QUESTIONAIRE

How to select the vendor?

After registration on PM Suryaghar Portal, login into the account and click submit application. Fill the information required and submit the application, select the registered vendor of choice (The list of registered vendors is visible in the 'Registered vendors' tab under consumers section)

The assessment of roof structure shall be carried out by installer for gauging the feasibility for installation of solar plant.

The selected vendor is responsible for the **complete installation** process as well as **Subsidy disbursement.**

What maintenance is required?

There is no special maintenance required for RTS plants except for periodical cleaning /washing of panels. It is preferred to wash/clean the panels once a week for efficient operation of the plant. However, periodicity depends on local conditions like dust, birds, air pollution, etc.

Regarding periodic cleaning of the plant, a separate AMC can be availed from the same or any other installer.

The AMC provided by installer for RTS installation **doesn't cover washing & cleaning**. In order to avail cleaning, separate additional AMC is to be taken up by consumer with same installer or a different installer

Consumer can tie up with existing or any different installer for AMC services beyond 5 years.

Can we pay the cost of plant through EMI?

The cost of plant can be paid by consumer in different tranches. However, the payment terms are to be negotiated & finalized between consumer & installer.

List of empaneled installers can be accessed at BRPL solar website https://rts.bsesdelhi.com by consumers themselves and consumer can select one or more installers for carrying out site visits and finalization of techno commercial proposal with any of the selected installers.

Will there be safety to us regarding plant? Is there any unsafe situation?

The installer installs the plant complying with minimum Technical specifications provided by MNRE

Typically there is a 5 year warranty on the complete system on subsidized systems. Warranty for systems, other than subsidized, depends upon the agreement between consumers and installers.

What can DISCOM do if any consumer wants to raise the complaint against the selected vendor?

All contractual disputes have to be settled between consumer & installer as per the terms & conditions of the agreement signed between them. DISCOM shall not be a party of any contractual dispute during any stage of installer finalization and plant installation. DISCOM is only facilitating the installation of net meter at consumer premises.

7.PROCEDURE TO APPLY

→ For Subsidy

Entire process is online and can be done at https://pmsuryaghar.gov.in by consumer.

Step1: Register at PM Surya Ghar Portal

Step2: Select Vendor of choice.

Step3: Authorize vendor to apply for Net-Metering at BSES RTS Portal (https://rts.bsesdelhi.com)

Step4: Apply for State Capital subsidy & Generation Based Incentive at Delhi Solar Portal at http://solar.delhi.gov.in

→ For Non-Subsidy

Entire process is online and can be done at https://rts.bsesdelhi.com by your selected installer/self.

You may also express Interest on this portal & select "Apply for Solar" or "Express Interest" for selection of desired Installer.

Where can I find the status of my application?

You can login on PM Surya Ghar portal (at https://pmsuryaghar.gov.in) to check the status of your application for subsidy applications.

For Non-Subsidy applications, visit https://rts.bsesdelhi.com to know the status.

Contact Information

Consumer can contact through any of the following means:

- One-stop Solar portal: https://rts.bsesdelhi.com
- Dedicated Email ID: netmetering.brpl@reliancegroupindia.com or netmetering.brpl@gmail.com
- Toll-Free Solar helpline no.: 19123 Ext. (3)
- Missed call: 9052552509

8. MISCELLANEOUS QUESTIONAIRE

Will my CA change after RTS installation?

No, CA will remain unchanged as long as Registered Consumer is unchanged.

If consumer wants to shift his solar connection to another C.A number which is working in same building due to any reason, so is it possible? If yes then confirm the process.

No, consumer can't shift his solar connection to other CA. Consumer first needs to surrender the net metering on existing CA no. & then re-apply for Net meter against new CA no.

In the name changes cases is there any special documents consumer need to provide or solar connection will be transfer automatically?

Name Change process is done by Division department. Once the name change process is complete, consumer needs to re-apply for solar installation on new CA number obtained after name change.

Shall we get any certain amount while the surrendering the solar connection?

No security is taken by DISCOM hence there is no refund.

Can we adjust the height of solar plant according to terrace height? Can I raise the height above my water tank? Will it cause any inconvenience to my neighbor?

Yes the height of solar plant can be adjusted according to terrace height. Yes the height can be raised above water tank. If there is any dispute with neighbor, both the parties may jointly apply for solar plant installation under Virtual Net Metering in which there shall be a common roof & credit shall be shared among both parties in the portion decided by them.

What is the relationship between sanctioned load and permissible PV capacity?			
Consumers can install a solar PV system up-to or beyond their sanctioned load. In case solar plant capacity is higher than sanctioned load, consumer needs to pay the applicable Service Line Cum Development Charges as per DERC Supply Code 2017 & latest amendments.			