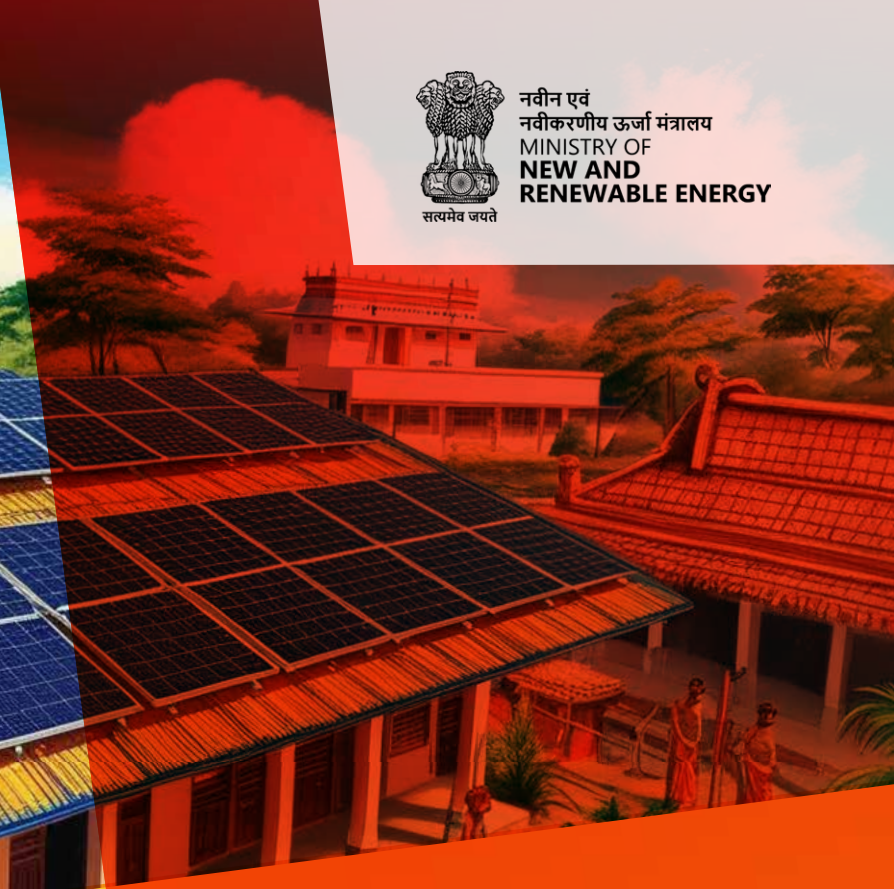


नवीन एवं
नवीकरणीय ऊर्जा मंत्रालय
MINISTRY OF
**NEW AND**
**RENEWABLE ENERGY**
सत्यमेव जयते

# GRID-CONNECTED ROOFTOP SOLAR SYSTEM

**FOR RESIDENTIAL CONSUMERS**

TAMILNADU POWER DISTRIBUTION CORPORATION LIMITED
TNPDCL

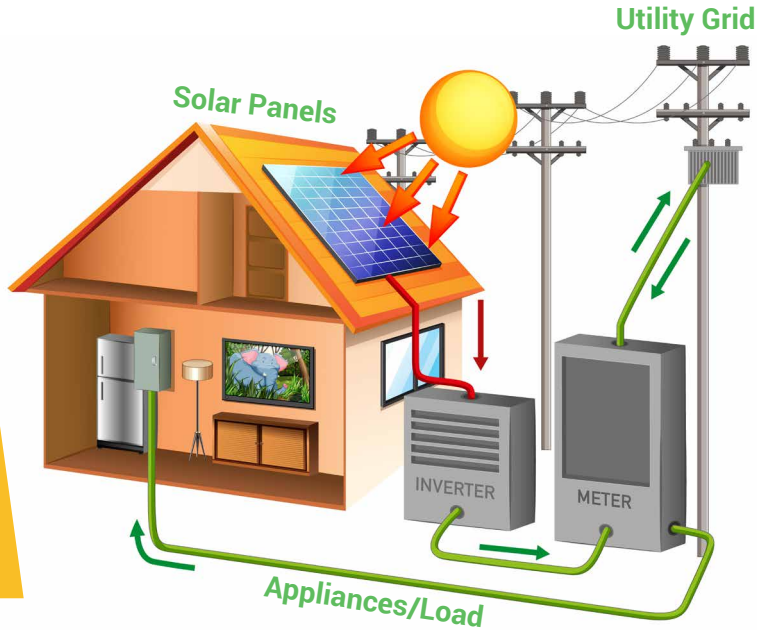
VASUDHA FOUNDATION
Green ways for a good earth!

# ABOUT THE **ROOFTOP SOLAR SYSTEM**

In a grid-connected rooftop solar (RTS) system, the DC power generated from solar panels is converted to AC power using a power conditioning unit/Inverter and is fed to the grid.

A **1 kW rooftop solar system** generally requires **10 sq. meters of shadow-free area.** However, actual area requirements may vary depending on the efficiency of solar module, their placement, etc. On a clear sunny day, a **1 kWp RTS system can generate 4 to 5.5 units of electricity.**

***Insall RTS system by applying online at www.pmsuryaghar.gov.in***




# SUBSIDY **SCHEMES**

Central Government Subsidy/ Central Financial Assistance (CFA) is available exclusively to residential sector grid-connected rooftop solar projects. The details of the subsidy for residential consumers are provided below:

| Plant Capacity | Applicable Subsidy |
|---|---|
| 1kW – 2 kW | ₹30,000 to ₹60,000/- |
| 2kW – 3 kW | ₹60,000 to ₹78,000/- |
| Above 3 kW | ₹78,000/- fixed |

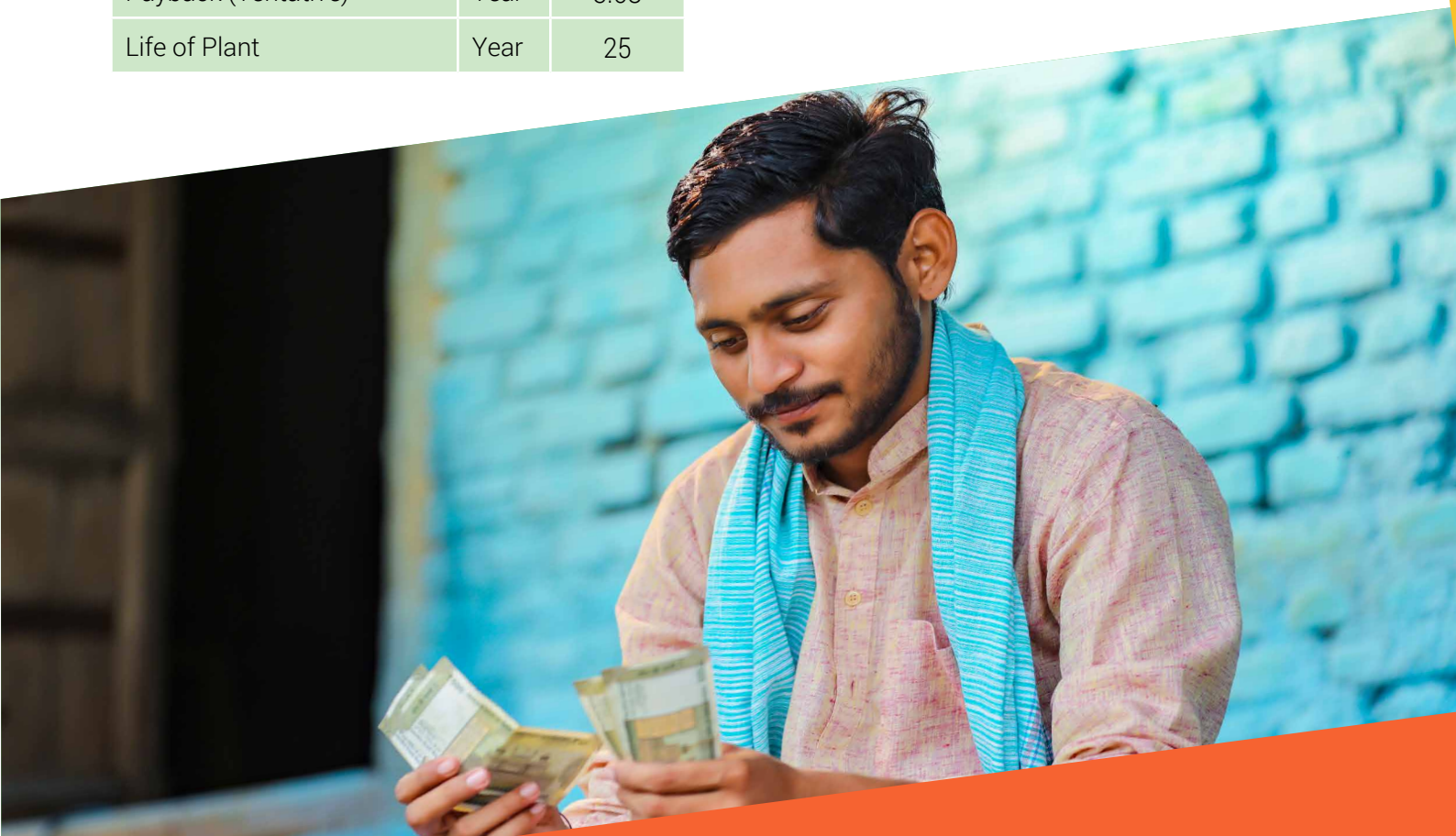
# POCKET-FRIENDLY **SYSTEM**

The rooftop solar system has a direct impact on the monthly electricity bill of each consumer. With the subsidy provided by the Central and State Government, the effective cost of the system reduces significantly. The average monthly generation from a 2kW system is 270 units in Tamil Nadu. The detail of monthly calculation and saving is provided below:

| Parameter | Unit | Value |
|---|---|---|
| Capacity | kWp | 2 |
| Cost per kWp (Tentative) | ₹ | 60000 |
| Cost of system | ₹ | 120000 |
| Total Subsidy (Central + State) | ₹ | 60000 |
| Net Cost of the system | ₹ | 60000 |
| Units' generation per month | kWh | 270 |
| Average unit cost | ₹ | 6 |
| Savings from Electricity monthly | ₹ | 1620 |
| Payback (Tentative) | Year | 3.08 |
| Life of Plant | Year | 25 |

# SOCIO-ENVIRONMENT **BENEFITS**

- **Reduces air pollution**- Electricity generation from fossil fuels can generate harmful carbon dioxide and methane gases that lower the quality of the air we breathe. A rooftop solar system uses solar energy which doesn't produce harmful gases.
- **No extra land requirement**- Rooftop solar system doesn't require any separate piece of land for the installation. It can be designed in a manner where consumers can use the roof space for the solar plant.
- **Reducing our reliance on fossil fuels**- With the use of rooftop solar system, we can reduce the dependence on imported fossil fuels, making India ***'atmanirbhar'***.



## WHO IS THE **NODAL AGENCY?**

Tamil Nadu Green Energy Corporation Limited (TEGECL) is the designated implementing agency for grid-connected RTS systems in the State.

## WHO CAN **INSTALL ROOFTOP SOLAR SYSTEM?**

All Residential Consumers or Residential Welfare Association (RWA) of electricity in the area of supply of designated power distribution utilities can install a rooftop solar system.

## HOW TO **INSTALL ROOFTOP SOLAR SYSTEM?**

The consumers can apply via **PM - Surya Ghar : Muft Bijli Yojana National Portal** for processing the applications for RTS systems.

Apply online at **www.pmsuryaghar.gov.in.** All the required details can easily be found on this portal.

### The overall process flow for the installation of RTS system is as below

**REGISTRATION**
Visit the official website (https://pmsuryaghar.gov.in)
Provide personal details for registration

**APPLICATION**
There are two ways to complete the application:
• Applicant selects a vendor to fill the Application
• Applicant filling out the application on his own

**FEASIBILITY**
After uploading all the required documents
The application will be assigned for the auto-generated feasibility approval

**INSTALLATION**
After installation, the Vendor will fill in the installation details, i.e., Inverter details, DCR Certificate, plant photo and apply for net meter

**INSPECTION**
DISCOM Officials will conduct the inspection and after fulfilment of the requirement, the net meter will be installed

**SUBSIDY DISBURSAL**
Receive subsidy within 30 days

**SUBSIDY REQUEST**
Ensuring bank details and all required details are submitted and then click on the Redeem subsidy

After the installation of the net meter, obtain a commissioning certificate from the portal

**UPLOAD AGREEMENT**
After the application process is completed, it will move to the Vendor's grid for the Upload Agreement document.

**VENDOR SELECTION**
Empanelled vendor can be selected from lists of vendors

सत्यमेव जयते

नवीन एवं
नवीकरणीय ऊर्जा मंत्रालय
MINISTRY OF
**NEW AND**
**RENEWABLE ENERGY**

**Ministry of New and Renewable Energy (MNRE)**
Atal Akshaya Urja Bhawan, CGO Complex, Lodhi Road, New Delhi – 110003, India
**Contact us** @ Toll Free Number: **15555**