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Frequently Asked Questions with Answers

1. What is a photovoltaic (PV) system?

PV technology produces electricity directly from electrons freed by the interaction of sunlight with a solar panel made of semiconductor material. The power provided is direct current (DC) electricity. The basic building block is known as a Solar cell. Many cells put together are known as module, and many modulesassembled together form an array. A PV systemwill consist ofanarray of modules generating DC electricity, an inverter and can be stored in battery storage banks.

2. Are the solar PV panels fragile?

Solar PV panels manufactured as per National and International standards are robust and can withstand the normal stresses subjected by nature.

3. What are the components of a photovoltaic (PV) system?

A PV system is made up of different components. These include PVmodules
(groups of PV cells), which are commonly called PV panels; one or more batteries; a charge regulator or controller for a stand-alone system; an inverter for a utility- grid-connected system and when alternating current (ac) rather than direct current (dc) is required; wiring; and mounting hardware or a framework.

4. What is an inverter?

Majority of electrical equipment's used for domestic/commercial/ Industrial purposes are of AC system. So, it is necessary to convert solar power generated at DC system to AC system. An inverter will convert DC to AC system.

5. What is a "grid-tied" PV system?

Connecting your solar system directly into the utility (CESC, MYSORE grid).

6. What are the different types of rooftop solar PV systems?

i. **Grid Connected -** These systems have no storage other than the grid itself. Any excess electricity generated from solar system is fed back into the grid. At night or during times of intense cloud cover, the installation draws power from the grid.
ii. **Hybrid (Grid tied with Storage) -** These systems are grid connected, but also have some storage capacity by way of a small battery bank. They provide some measure of continuity when the grid goes down at the same time as there is not sufficient solar input.
iii. **Off-grid -** These systems are suited to remote locations where a grid connection is not available/when there will be no continuous power supply in the grid. The battery bank is sized to provide a certain number of days of storage in the installation and the installation draws power from the storage batteries during the night or during days of intense cloud cover.

7. Can I use Solar PV system to power my home?

Solar PV system can be used to power your entire home's electrical systems, including lights, cooling systems, and appliances.

8. What is net-metering?

Net-meter (bi-directional meter) is having provision to record energy imported from the grid to meet the load and energy exported to the grid after selfconsumption. Both energy

import and export records in the net-meter. The difference between Export and Import readings is the actual energy consumed/delivered.
The net meter records surplus energy exported to CESC, MYSORE grid. When your system generates less energy than your consuming load, the meter records energy imported from CESC, MYSORE grid.

9. What guarantees will I receive?
The SRTPV Panels will be normally having 25 years of guaranteed life and Inverter with a guaranteed period of 5 years and same is to be guaranteed by installing agencies.

10. How much space on my roof do I need for a solar PV installation?
The grid connected SRTPV system of 1 kW peak power capacity requires about 100 sq. ft. shadow free area on the rooftop.

11. How much electricity does a PV system generates?
For every kW peak SRTPV system installed on a South facing roof, the system will generate 4 to 5 units per day. However, the energy generation depends upon the weather conditions and reduces by around 20% for an East or West facing roof.

12. How much does a Solar PV system cost?
The cost of the SRTPV system depends on the make of the system used, however, the approximate cost of PV systems varies between Rs.70,000 to Rs.1,00,000 per kWp.

S. No	Parameters	Cost (Rs./ kWp) in thousands
1.	Solar PV Module	30 - 45
2.	Inverter	12 - 15
3.	Mounting Structure	08 - 10
4.	Junction Box	01 - 02
5.	Lightning Arrestor	0.5 - 01
6.	Earthing Strip	01 - 3.0
7.	Civil & Electrical work	10 - 12
8.	Cables and Wires	02 - 03
9.	Engineering and Designing	04 - 05
10.	Transportation Cost	0.5 - 01
11.	Other miscellaneous cost	01 - 3.0
12.	**Total Cost**	**70 - 100**

13. Whether all consumers are eligible to install solar rooftop systems to avail net metering facility?
Yes. All registered metered consumers coming under the jurisdiction of CESC, MYSORE area are eligible for installation of solar RTPV system.

14. Do I need plan permission from the Local Authorities?
Not required, In case the height of the building is below the permissible limit of local authority.

15. Do I need to inform Power Utility (CESC, MYSORE)?
Yes. For grid connection, prior approval is required.
For off-grid SRTPV systems installation, no permission is required.

16. Is there any prescribed application?
Yes. The consumer can download application form for installation of Solar RTPV system from CESC, MYSORE websitewww.cescmysore.org

17. How much time will it take to give permission?

Subject to feasibility, permission will be issued normally within 7 working days from the date of registration of application.

18. Who is the nodal point of contact?

The nodal point of contact for SRTPV programme shall be the jurisdictional AEE(Ele), O&M, Sub-division, CESC, MYSORE.

19. Are there any grants / subsidy available?

Yes. Ministry of New Renewable Energy (MNRE), Ministry of Power, GoI will grant 30% subsidy. For further assistance please visitwww.mnre.gov.in

20. How the billing and payments are made?

i. The consumer shall receive monthly a net import/export bill indicating either net export to the grid or net import from the grid.

ii. In case of net import bill, the consumer shall settle the same as per existing norms. If it is a net export bill (after self-consumption), net credit amount payable will be deposited by CESC consumer's bank account, provided by consumer at the stage of submission of application.

iii. The amount payable for net export of energy shall be as per prevailing tariff of KERC.

- Without subsidy Rs.9.56.
- With MNRE subsidy Rs.7.20.

iv. The credit if any,shall be settled within 30 days from the date of meter reading and credited to the bank account through NEFT.