



## Frequently Asked Questions (FAQs)

### Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyan Scheme

#### 1. What is the PM-KUSUM scheme?

PM-KUSUM (Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan) is the scheme of Ministry of New and Renewable Energy (MNRE), Government of India aimed at supporting the agriculture sector through setting up of decentralized solar power plants, replacement of agriculture diesel pumps with solar agriculture water pumps and solarisation of existing grid connected agriculture pumps. The scheme has three major components as mentioned below

##### **Component-A:**

Setting up of Decentralized Ground/ Stilt Mounted Grid Connected Solar up to 2MW. Farmers can set up such plants in their land and sell the power to GRIDCO/DISCOM at predetermined tariff.

##### **Component-B:**

Installation of Standalone Solar Agriculture Pumps. Farmers having or intending to have bore-wells in their fields but not having access to power or farmers who wish to replace their diesel pumps can install standalone solar pumps at subsidised rates under this component.

##### **Component-C1:**

Solarisation of Grid Connected Agriculture Pumps. Under this sub-component farmers already using grid connected pumps can set up solar power system double the capacity of their pumps in kW and sell the generated power to the DISCOM at pre-determined tariff while for running the existing pump will continue to purchase power from the DISCOM by paying the usual tariff.

##### **Component C 2:**

Feeder Level Solarisation. Dedicated agricultural feeders or feeders having major agricultural loads can be solarised under this component by DISCOMs or through Developers in CAPEX or RESCO mode. Developers can sell the power to the utility at tariffs determined through tenders. For conserving water, farmers will be financially rewarded under this scheme to the extent of power they save through conservation.

In subsequent pages, Frequently Asked Questions and Answers in respect of PM-KUSUM Component C1 have only been discussed.



**2. Which category of farmers will be benefitted under PM KUSUM C1?**

All category of farmers of the state including different farmers' societies/ groups can be benefitted under this scheme e.g.

- All individual farmers
- Pani Panchayats
- Farmers Producers' Organisations
- Primary Agricultural Credit Societies
- Community Irrigation Projects

**3. How a farmer/farmers' group can be benefitted under the scheme?**

Farmers/Farmers' group can increase their income by selling solar power to the DISCOM. The scheme enables the farmer to become a power seller.

**4. How this scheme works?**

Under this scheme farmers/ farmers' group using grid connected pumps are allowed to set up solar power plants of double the capacity of their pumps in kW in the vicinity of their existing pumps.

- The solar power plant is connected to the nearby power line through a gross meter to facilitate flow of solar power to the grid.
- The DISCOM purchases solar power as per reading of the gross meter @ Rs 3.60 per kWh and sells grid power to the farmer for irrigation in the usual manner @ Rs1.50 per unit.
- After deducting the sale price from the purchase price the DISCOM pays the balance amount to the farmer/group on monthly basis.

**5. What is the approximate cost of a solar power plant; is any subsidy, bank loan available for setting up the plant ?**

- A solar power plant costs about 50,000-55000 per kW.
- For setting up a plant Central and State government provide 30% subsidy each to all eligible beneficiaries.
- The farmer can himself invest the balance 40% or can invest only 10% and avail 30% as loan.

**6. What is the tenor of the loan and what rate of interest it bears?**

- The maximum allowable tenor is 12(twelve) years and the maximum interest that can be charged by banks 9%.



- For early repayment of loan there is provision of 10% discount on the outstanding loan amount which will be borne by the DISCOM.

**7. Could you give example of project financials for a 3 HP pump?**

1.	Capacity of the existing grid connected pump	3 HP
2.	Eligible capacity of the solar power plant	4.5 kW
3.	Approximate cost of the solar power plant (Rs.)	2,16,000
4.	Total subsidy ( Centre + State) (Rs.)	1,29,600
5.	Balance cost of the system (Rs.)	86,400
6.	Farmer's share @ 10% (rs.)	21,600
7.	Amount to be borrowed as loan (Rs.)	64,800
8.	Loan Tenor	10 Yrs.
9.	Interest on borrowed capital	9%
10.	Equated Monthly Instalment for repayment of loan (capital + interest) (Rs.)	821
11.	Approximate realisation from sale of power PM (Rs.)	1701
12.	Approximate cost of purchased power PM (Rs.)	224
13.	Monthly average income of farmer (until repayment of loan (Rs.)	656
14.	Monthly average income of farmer (after repayment of loan (Rs.)	1477

*\*the above are approximate values, which may change slightly under actual conditions*

*For farmers who have availed loan, an amount of Rs 1000/- per kW will be deducted from their accruals towards AMC from 6<sup>th</sup> year onwards till complete repayment of the loan amount.*

*The income of farmers will largely depend on the quantum of power generated. For this farmers have to regularly clean the panels and keep them shadow free. They should also take proper care of the inverter and cables associated with the plant.*

**8. How much land is required for setting up a solar power plant?**

- Approximately 100 sqft land is required per kW capacity of the solar power plant.
- They land should be located in an open and shadow free area close to the power lines.

**9. Whom a farmer should approach for a solar power plant under the scheme and who would facilitate loan and other related works?**

- For installation of the solar power plant, the beneficiary is required to submit an application in the prescribed form to the Junior Engineer/SDO of the DISCOM or visit Customer Care Centre.
- After the application is approved in the district committee the same will be sponsored to the bank for consideration of loan
- After sanction of the loan the plant will be set up through a Business Associate empanelled by the DISCOM.

**10. How many days does it take for setting up a solar power plant?**



- It takes about 90 days for setting up the plant and make it fully functional

**11. Could you elaborate about the maintenance and upkeep of the solar power plant?**

- The power production capability of a solar power plant grossly depends upon its ~~the~~ maintenance and upkeep.
- Maintenance responsibility for the initial 5 (five) years period has been vested in the Business associate and the maintenance cost has been built in to the project cost.
- During this period the Business associates is expected to visit the plant every quarter and undertake necessary maintenance. In case of any defect, malfunctioning or damage to any of the component/subcomponent of the system, the concerned farmer may intimate the same to the Business associate for necessary redressal measures.
- Apart from the Business Associate, the farmer should also undertake day to day maintenance and upkeep of the plant.
- The farmer needs to clean the panel at least once a week with wet cloth or by spraying water on the panels. In order to avoid possible electric shocks this should be done either before sunrise or after sunset.
- Clean and shadow free solar panels produce the desired amount of power.
- If for any reason the cable gets snapped or any component of the solar power plants gets damaged the farmer should promptly report the matter to the Business associate or Junior Engineer /SDO of the DISCOM.

**12. Is there any provision of insurance against accidental damage or vandalism of the system?**

- For the initial 5years the system is insured against natural disasters such as cyclone, flood, earth quake, lightening etc. Beyond 5(five) years the farmer has to continue the insurance in his own interest.

**13. If in any given month the accruals due to the farmer is not adequate to serve the EMI, will the farmer bear the balance amount of EMI?**

- In such case, the DISCOM will bear the balance amount of EMI. However, if the power generation is affected due to negligence of the farmer in day-to-day maintenance and upkeep of the plant, the concerned farmer will remain responsible for the same.