

### **PM KUSUM (Component C) Scheme:**

1. Solarisation of 15 lakh Grid Connected Agriculture Pumps of individual pump capacity up to 7.5 HP including through feeder level solarisation (11.2 GW).
2. It has two subcomponents, Individual Pump level Solarisation and Agriculture feeder level Solarisation.
3. The Central Financial Assistance (CFA) of 30% of the benchmark cost or the tender cost, whichever is lower, of the solar PV component will be provided.
4. The State Government will extend a grant/subsidy of 30% and the remaining 40% will be provided by the farmer.
5. Further, the farmer has to arrange 30% through Bank finance and 10% as own contribution up front.
6. It is estimated that about 78,000 individual pumps level solarisation can be covered under 5 kW solarisation scheme against state government approval of only 40,000.

### **Following considerations approved by the commission:**

- a. Solar PV capacity shall not be less than pump capacity in HP e.g. for 5 HP pump, the solar PV capacity allowed should not be less than 5 kWp and may go up to 7.5 kWp (1 HP~0.75 kW). CFA will be provided for solarisation of pumps up to 7.5 HP though capacity higher than 7.5 HP is also allowed.
- b. Under the Feeder Level Solarisation, solar power plant capable to fulfil the requirement of annual power for the concerned agriculture feeder(s) can be installed either through CAPEX or RESCO mode by DISCOM with no cap on the capacity.
- c. Solar power availability: 300 sunshine days in a year and effective days of utilization by farmer: 240 days (considering two crop cycles within a year).
- d. Benchmark cost of MNRE: Rs.4.71 Cr/MW & Cost of solar plant: Rs.5.5 Cr/MW

### **The DISCOM designated as the implementing agency To Do Following as Approved:**

1. Educate farmers to install the solar PV capacity twice the capacity of pump which shall not be more than 7.5 HP and shall not be less than 5 kWp (for 3HP solarized pump).
2. Discom to purchase entire quantum / surplus quantum of power directly from the solar installation of the farmer at LT level
3. The Discoms shall execute a valid supply contract/agreement (25Yrs) with farmers from the solar installations under Kusum C with following conditions:
  - (i) Minimum annual load factor of 15% for effective use solar energy (reconciliation of the bill to be done annually)
  - (ii) Farmer to comply using the pumps for irrigation purpose during day time (from 5.00 AM to 6.00 PM) & responsible to conserve the ground water
  - (iii) Solar Power injected to Grid shall be measured through Gross Metering
  - (iv) Power Purchase cost shall be at the tariff of Rs.3.60 per kWh
  - (v) Rate of Interest should not exceed 9% & term not to exceed 12 years
4. Discom can arrange loan for the farmer or he/she can get it of their own.

- (a) In case of loan availed by Farmer through Discom:
- Purchase entire quantum and bill to farmer @ Rs. 3.60 per kWh.
  - AMC scope - 5 years for developer and Discoms from thereon.
  - Solar Power injected to Grid shall be measured through Gross Metering
- (b) In case of loan NOT availed by Farmer through Discom:
- Power injected after self-consumption for irrigation purpose.
  - Purchase quantum injected and bill to farmer @ Rs. 3.60 per kWh.
  - The self-consumption of power by farmer will be billed at RST rate.
  - Solar Power injected to Grid shall be measured through Gross Metering.
  - The AMC of the Project shall be the responsibility of the farmer.
- (c) Accounting in above two cases:
- An ESCROW account for individual farmer to be opened by Discom.
  - Revenue earned through sale of power shall be transferred to this account after adjusting the amount due from self-consumption.
  - Principal, Interest and AMC (after 5Y) shall be deducted from this account.
  - In case of shortfall to meet the above expenses, Discom to pay the deficit from the receipts of CSS and Non-Tariff income
  - In case of balance available after meeting above expenses and the loan is extinguished, net amount credited to farmer account.
  - In case farmer wants to foreclose the loan anytime, 10% discount be provided by Discom from the receipts of CSS and Non-Tariff income
  - Additional income due to increase in generation above approved CUF>17% shall be adjusted towards principal amount to reduce the interest burden.
  - Installation to be insured against the natural calamities (Developer Scope)
5. Technical Requirements as per BIS & MNRE to be taken care by Discoms:
- Ensure correct technical specification and construction standards
  - Ensure proper smart metering
  - Ensure communication hardware, mandatory AMC
  - Creation of remote monitoring system to monitor performance of system
  - Ensure correct specification for grid-tied inverters
  - Surge Protection Device (SPD), lightning arrestors, earthing, MCB/MCCB/RCCB, etc., shall be provided as per standard industry practice.
6. Discom to do publicity of the scheme: Village level meetings, hoardings, leaf let, electronic & print media, website or can even engage an NGO or agency.
7. Discom to take initiatives to identify feeders for feeder level solarization
8. Discom to keep record of all energy accounting as stated above available readily.
9. Follow model PPA approved by the commission and add any provisions if required based on mutually agreeable terms to farmers and Discom.
10. GoO is advised to consider waiver of ED & in case of change in Interest rate or RST the Discom to approach commission for re-determination of the above tariff.