

**Pradhan Mantri
Kisan Urja Suraksha evam Utthan
Mahabhiyaan**

PM KUSUM Scheme

3rd February 2021

India : Statistics

- Total land use area : 328.7 mh (Net-sown area – 140 mh)
- Population : 130 billion (17% of World Population)
- Fresh water resources : 4% of World resources
- Water use for Agriculture : 80% of available resources
- GDP share of Agriculture : 17%
- Agri. electricity consumption : 213 billion kWh (18% of total)
- Agriculture pumps
 - Electric grid connected – 22 million
 - Diesel – 7 million
- Electricity subsidy for Agri. : 1000 billion INR

PM-KUSUM - Objectives

- Water security to farmers through reliable day time Solar power.
- Utilization of degraded/un-used land of farmers.
- Additional income to farmers by selling surplus power to DISCOM
- Water conservation.
- Promotion of decentralized Solar power generation.
- Reduction of burden of subsidy to agriculture sector

PM - KUSUM Scheme

- The Scheme consists of three components:
 - **Component A:** 10,000 MW of Grid Connected Solar or any other RE Plants (500 kW to 2 MW capacity)
 - **Component B:** 2 million standalone Solar Ag Pumps (up to 7.5 HP)
 - **Component C:** Solarisation of 1.5 million grid-connected Ag Pumps (up to 7.5 HP)
- Total 30.8 GW capacity to be created by the year 2022 with Central Financial Support of 340 billion INR

Component A

- Plant Capacity : 500 kW to 2 MW.
- Distance from distribution sub-station : up to five km
- Setup by farmers/cooperatives/panchayats/project developer/Farmer Producer Organisation (FPO)/ Water User associations (WUA)
- To be implemented primarily on barren / uncultivable land
- On agricultural land solar power plant to be installed in stilt fashion
- DISCOM eligible for PBI @ Rs. 0.40 per unit for first five years
- Power will be purchased by DISCOMs at pre-fixed tariff
- Duration of PPA will be 25 years
- In case of project set up by a developer :
 - Lease rent to farmers by developers on basis of per acre per year **or** per unit energy generated per acre per year
 - Lease rent payment directly to the farmers by DISCOM

Component B

- Standalone Solar Agriculture Pumps : 1.75 million
- Aggregate capacity : 8250 MW
- Pump capacity : up to 7.5 HP
- Higher capacity pumps allowed with limit of subsidy upto 7.5 HP pumps.
- Individual farmers, Water User Associations and community/cluster based irrigation system eligible under Scheme
- Central and State Government support - 30% each & balance 40% by farmer
- Priority to small and marginal farmers and preference to the farmers using Micro irrigation systems
- Sizing of pump based of water table in the area, land covered and quantity of water required for irrigation
- In Dark/Black zones only diesel pumps to be replaced provided they use micro irrigation techniques
- Option of Universal Solar Pump Controller (USPC) to enable use of solar power for other activities

Component C

- Solarisation of Agriculture Pumps : 1 million
- Aggregate capacity : 7500 MW
- Pump capacity : up to 7.5 HP
- Solarisation capacity permitted in kWp : Twice pump capacity
- Solarisation of higher capacity allowed with limit of CFA up to 7.5 HP
- Individual farmers, Water User Associations and community/cluster based irrigation system eligible under Scheme
- Surplus power to be sold to DISCOM (Tariff by the Regulator)
- Feeder-wise implementation
- Different Models – Net Metering/ No drawl from grid/ Feeder level solarisation

Component C – Feeder Level Solarisation

- Instead of solarising individual pump, feeder level solarisation is more efficient and cost effective – on investment from farmer
- States are implementing agriculture feeder separation programme
- Solar plants of capacity that can cater the requirement of an agriculture feeder can installed through CAPEX/RESCO mode
- In CAPEX mode the state will recover investment in 4-5 years from the electricity subsidies being paid to agriculture sector
- No electricity subsidy required for agriculture thereafter
- In RESCO mode – no investment from State, still saving of around Rs. 2 per unit due to cheaper solar power
- Farmers will get reliable day time supply at free/low cost
- Farmers can be incentivized for saving electricity and water

Financing PM KUSUM Scheme

- The three Components of PM-KUSUM have been included under Priority Sector Lending (PSL) norms by Reserve Bank of India
- Agriculture Infrastructure Fund (AIF) approved on 8th July 2020
 - INR1000 billion to be provided by banks/FIs as loans
 - **Loans up to Rs. 20 million** with **interest subvention of 3%** and credit guarantee coverage
 - Farmers/ FPO/ SHG/ JLG, Agri-entrepreneurs, Startups, Central/State/Local Body sponsored PPP Projects
- Com-B and Com-C of PM-KUSUM Scheme have been included under AIF for concessional loan (3% interest subvention from maximum 9% loan rate)

Financing Options – Component C

Option	Financing	Model
Loan to individual farmer or group of farmer	60% subsidy 10% Farmer contribution	<ul style="list-style-type: none"> • Banks loan will be repaid from amount realised from sell of surplus power and balance is farmer's income • Post loan repayment, entire amount is farmer's income • Concessional loan under AIF is available for Group of farmers
Discom to take loan on behalf of farmer	30% loan	<ul style="list-style-type: none"> • Discom directly repay loan from amount for surplus power fed in to grid and balance is given to farmer • Post loan repayment, entire amount is farmer's income
Feeder level through CAPEX	30% Central subsidy, balance invested by State, no contribution from Farmer	<ul style="list-style-type: none"> • State may take loan from NABARD under RIDF, Over and above RIDF also, NABARD is ready to give loan above RIDF • Repayment of loan made from saving in subsidy given on electricity for agriculture consumers. • Repayment of loan possible in less than five years
Feeder level through RESCO	30% Central subsidy Balance invested by RESCO no contribution from Farmer/State	<ul style="list-style-type: none"> • Power supplied by RESCO at reduced tariff of Rs. 2-2.5/kWh. • RESCO/Developer will take loan from Bank on the strength of their balance sheet • PFC/REC/Banks/FIs can give loan to developers

Thanks

jethani.jk@nic.in