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

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<tr>
<th>Option</th>
<th>Financing</th>
<th>Model</th>
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<tr>
<td>Loan to individual farmer or group of farmer</td>
<td>• 60% subsidy&lt;br&gt;• 10% Farmer contribution</td>
<td>• Banks loan will be repaid <strong>from amount realised from sell of surplus power</strong> and balance is farmer’s income&lt;br&gt;• Post loan repayment, entire amount is farmer’s income&lt;br&gt;• Concessional loan <strong>under AIF</strong> is available for Group of farmers</td>
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<td>Discom to take loan on behalf of farmer</td>
<td>30% loan</td>
<td>• <strong>Discom directly repay loan</strong> from amount for surplus power fed in to grid and balance is given to farmer&lt;br&gt;• Post loan repayment, entire amount is farmer’s income</td>
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<td>Feeder level through CAPEX</td>
<td>• 30% Central subsidy, balance invested by State, no contribution from Farmer</td>
<td>• State may take loan from NABARD under RIDF, Over and above RIDF also, NABARD is ready to give loan above RIDF&lt;br&gt;• Repayment of loan made from saving in subsidy given on electricity for agriculture consumers.&lt;br&gt;• Repayment of loan possible in less than five years</td>
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<tr>
<td>Feeder level through RESCO</td>
<td>• 30% Central subsidy&lt;br&gt;Balance invested by RESCO&lt;br&gt;no contribution from Farmer/State</td>
<td>• Power supplied by RESCO at reduced tariff of Rs. 2-2.5/kWh.&lt;br&gt;• <strong>RESCO/Developer will take loan from Bank</strong> on the strength of their balance sheet&lt;br&gt;• PFC/REC/Banks/FIs can give loan to developers</td>
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Thanks

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