

Maharashtra Power Distribution Enhancement Program for Agriculture Solarization

ACEF 2025



महाराष्ट्र शासन



Mukhyamantri Saur Krushi Vahini Yojana (MSKVY) 2.0 : Largest cross sectoral intervention to support Agriculture



Agenda

- 1. About MSKVY 2.0**
- 2. Interventions required for success of MSKVY 2.0**
- 3. VGF for Solar Power Developers**
- 4. Distribution System Strengthening**
- 5. Digitalization**
- 6. Distributed BESS Hybrid**



Sector issues: Constraints to Agriculture Solarization & Solutions

(Agriculture solarization in Maharashtra faces fundamental development problems)

Solutions



Socio-economic barriers



Limited Community Involvement



Poor Rural Distribution Grids



Seasonal use and High Subsidy

To support **Power Sector Vision 2030** and meet the decarbonization targets, the **investment program aims to enable the implementation of agriculture solarization initiatives through a holistic approach** for the development of rural distributed solar initiatives.

1

Engaging private sector to increase the capacity of distributed solar generation

2

Strengthening and modernizing the rural distribution network to enable RE integration

3

Skill development for green jobs and creating green entrepreneurial opportunities

Output 1: Inclusive RE development through private sector and green-energy ready rural grids enhanced

Output 2: RE integration and green transition through digitalized operations and gender-inclusive livelihoods achieved

Program Outputs

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Output 1: Inclusive RE development through private sector and green-energy ready rural grids enhanced

- ☐ VGF payment for about 1000 MW of renewable energy installations
- ☐ Installation of New and Augmenting existing 288 Nos of High-tension substations.
- ☐ Installation of New and Augmenting existing 7000 Nos Distribution transformers to Strengthen HT network.
- ☐ Awareness Creation on solar electricity: 1000 Community members (at least 500 women and girls)
- ☐ Potential internship opportunities with MSEDCL

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Output 2: RE integration and green transition through digitalized operations and gender-inclusive livelihoods achieved

- ☐ Digitalization of control and monitoring of electrical grid to facilitate integration of renewable energy by
 - Installation of CCC at MSEDCL Head quarters
 - Installation of SMS with SCADA at 2500 S/S.
- ☐ Green skilling covering 5000 participants for job skills (at least 1000 women participation)
- ☐ Support for rural communities for green- energy based livelihoods (at least 250 with at least 100 women)

Outcomes:

- 1) Daytime electricity supply provided to agricultural consumers through Solarized feeders by 2027
- 2) Renewable energy purchase obligation of MSEDCL increased

Program Value Addition and Potential Replication

Skilling program: MahaSKY (Maharashtra Saur Kaushalya Yojana)

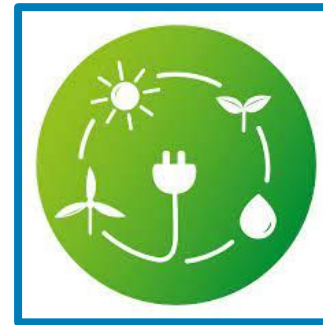


1) Green Skilling and Green Jobs:

- ❑ **Skill development:** 5,000 participants (at least 1,500 women) to develop their capacity for green jobs with solar power developers.
- ❑ **Facilitation support:** 150 beneficiaries (at least 75 women) to link with government programs to pursue green-energy livelihoods options.
- ❑ Support 100 beneficiaries (at least 50 women) through rural green entrepreneurship financial facility to pursue green-energy entrepreneurship options.



Community Interventions



Digital Solutions

- ❑ CTF (concessional loan)
- ❑ Grant (technical assistance): Capacity Building and Institutional Development- Training for 800 -1000 Nos

2) Innovation & Digital solutions:

- ❑ Enabling digitalization of the electricity distribution grid to support integration of the distributed RE (Substation Monitoring System with SCADA and Centralized Command Control)
- ❑ Battery Energy Storage System of 1500 MWh (high potential for scale-up in future)
- ❑ Tech-enabled resource adequacy plan to support the state in planning the decarbonization initiatives



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Thank you



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