



Government of Maharashtra
Energy Department



MISSION 2025

Daytime Electricity
Supply to Agriculture

22nd April 2023

एकनाथ संभाजी शिंदे

मुख्यमंत्री
महाराष्ट्र



शुभेच्छा

महाराष्ट्राच्या प्रगतीत शेतकऱ्यांचे अत्यंत महत्वाचे योगदान आहे. विविध नैसर्गिक आपत्तींना तोंड देत व अत्यंत कष्टपूर्वक महाराष्ट्रातील शेतकरी राज्यातीलच नाही तर संपूर्ण देशासाठी अन्नदात्याची महत्वाची भूमिका पार पाडतो. त्याचबरोबर ग्रामीण भागात रोजगार पुरवण्यातही शेती क्षेत्राचा मोठा वाटा आहे. महाराष्ट्र शासन कायमच शेतकऱ्यांच्या पाठीशी भक्कमपणे उभे राहिले आहे. शेतकऱ्यांना दिवसा वीजपुरवठा करण्यासाठीच्या 'अभियान २०२५' ची अंमलबजावणी होत, आहे ही आनंदाची बाब आहे.

'नमो शेतकरी महासन्मान निधी, छत्रपती शिवाजी महाराज शेतकरी सन्मान योजना, महाकृषी विकास योजना, एक रुपयात पिक विमा' यासारख्या अनेक शेतकरी हिताच्या उपाययोजना आपण राबवत आहोत. या योजनांसाठी सन २०२३-२४ च्या अर्थसंकल्पात भरीव तरतूदही केली आहे. शेतकरी केंद्रीत या योजनांच्या दृष्टीने पुढचे पाऊल म्हणजेच शेतकऱ्यांना दिवसा वीजपुरवठा करण्यासाठीचे 'अभियान २०२५'.

या अभियानाद्वारे शेतकऱ्यांच्या एका महत्वाच्या अडचणीवर मात करणे शक्य होणार आहे. वेळी-अवेळी व रात्री होणाऱ्या वीज पुरवठ्यामुळे सिंचनासारख्या मुलभूत कामामध्ये शेतकऱ्यांना मोठा त्रास होतो. त्यांना अनेक अडचणींचा सामना करावा लागतो. शेतकऱ्यांना दिवसा वीज पुरवठा करण्यासाठीच्या 'अभियान २०२५' द्वारे राज्य शासनाने २०१७ मध्ये सुरू केलेली 'मुख्यमंत्री सौर कृषी वाहिनी योजना' अधिक प्रभावीपणे, वेगवान व मोठ्या प्रमाणात राबवण्याचा निर्धार केला आहे. त्याद्वारे येत्या काही वर्षांत शेतकऱ्यांना दिवसा खात्रीशीर वीजपुरवठा करून मोठा दिलासा देण्याचा महत्वाकांक्षी निर्णय घेतला आहे. शासनाने सर्व घटक, महावितरण व इतर सर्व संबंधित यंत्रणा एकत्रितपणे यासाठी काम करून 'अभियान २०२५' यशस्वी करण्यासाठी प्रयत्न करतील हा विश्वास आहे.

शेतकऱ्यांना दिवसा वीजपुरवठा करण्यासाठीच्या 'अभियान २०२५' च्या अंमलबजावणीसाठी मनःपूर्वक शुभेच्छा !

(एकनाथ संभाजी शिंदे)

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**DEPUTY CHIEF MINISTER
MAHARASHTRA STATE**



Date: 21st April, 2023

MESSAGE

Farmers are the economic, cultural, and social backbone of the state. Maharashtra has about 45 lakh agricultural electricity consumers, the largest in the country. Providing a daytime supply of electricity is one of the crucial aspects of addressing many hardships faced by farmers. For this, in 2017 we launched Mukhyamantri Saur Krishi Vahini Yojana, to deploy decentralized solar projects at the substations catering to agricultural feeders. This not only enables daytime supply to farmers but also helps in increasing the use of renewable energy and reducing the cost of supply to agricultural consumers. Since 2017, under this scheme, more than 500 MW of solar projects have been commissioned and are benefiting nearly 1, 00,000 agricultural consumers.

In light of the benefits of this scheme to farmers, it is decided to undertake 'Mission 2025' to significantly expand the coverage of Mukhyamantri Saur Krishi Vahini Yojana (MSKVY) in the coming years. 'Mission 2025', aims to increase the scale and speed of deploying solar capacity for daytime supply to farmers and to solarize at least 30% of agricultural feeders by December 2025.

To achieve this ambitious target the Government of Maharashtra will provide financial support of over Rs. 1960 Cr. through Green Energy Cess Fund. Government will also provide an attractive lease rent of Rs. 1, 25,000/- ha. for farmers willing to provide their land for establishing solar projects. This will give a stable income source for these farmers. Additionally, Government land near the substations will also be made available for these farmer-centric solar projects.

This 'Mission 2025' document provides the strategy and framework for achieving the ambitious goal of providing daytime supply to agricultural feeders. I congratulate the Energy Department, Experts and all other Government entities who contributed to the development of this 'Mission 2025' document, and look forward to the successful implementation of the same.

(Devendra Fadnis)



Abha Shukla
Principal Secretary (Energy)



PREFACE

19th April, 2023.

The Government of Maharashtra has always been at the forefront to support its farmers through various schemes. The Mukhya Mantri Saur Krishi Vahini Yojana was one such visionary scheme introduced in 2017 with the objective to help farmers get a daytime electricity supply. With changing weather patterns, the dependence of farmers on electricity to support farming is increasing. Currently, over 500 MW of solar-powered daytime electricity is being supplied to agricultural feeders.

As envisioned by Honorable Deputy Chief Minister it is necessary to further expand the reach and benefits of solarization of agricultural feeders through 'Mission 2025'. An extensive study was undertaken by the Energy Department with support from various stakeholders which led to the development of this Mission 2025 document. 'Mission 2025' identified key barriers to achieving speed and scale in the deployment of distributed solar power projects for agricultural feeders and provides innovative solutions to achieve 30% agricultural feeder solarization by 2025.

To achieve the objective of the Mission a seven-pronged approach has been designed; which provides flexibility in project sizing, increasing land availability, financial incentives to support project deployments, measures to address technical challenges, building public support, monitoring framework and development of mission dashboard. This approach gives the necessary directions to all stakeholders to provide 7000 MW of solar capacity for daytime supply to farmers by 2025.

I thank the Honorable Chief Minister and Deputy Chief Minister of the Government of Maharashtra for their continued guidance. I also record my appreciation for the support from my colleagues in the department and outside experts, for the development of this Mission Document. We all commit to making this 'Mission 2025' successful for the benefit of farmers and the electricity sector in the state.

(Abha Shukla)
Principal Secretary (Energy)

MISSION 2025: Daytime electricity supply to agriculture

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Mission 2025: At a Glance

Maharashtra has over 45 lakh agricultural electricity consumers, which form the backbone of the rural economy and employment. These farmers have been consistently demanding daytime electricity supply to address issues of safety and convenience. The Government of Maharashtra has been conscious of this demand and launched the Mukhyamantri Saur Krishi Vahini Yojana (MSKVY) in 2017 to provide daytime supply to agriculture. A similar approach is also adopted in the KUSUM program of the Central Government. Under these schemes, solar power is deployed at the substation level to provide daytime supply to agricultural consumers.

Mission 2025 aims to significantly increase the scale and speed of solar project development under MSKVY and KUSUM. It aims to provide 7000 MW of solar capacity for daytime supply to farmers. Immediate objective of the mission is to solarize 30 per cent of agriculture feeders by 2025.

The Mission would enable:

Daytime supply to farmers	Reduction in cost of supply to agriculture and hence reduction in the cross-subsidy burden on industrial and commercial consumers
Investment of over Rs. 30,000 Cr. spread across various districts to support agriculture	Renewable energy supply to agriculture that contributes to the national goal of decarbonizing the electricity sector
Long-term assured income for farmers through leasing of land for solar projects	Rural employment generation of thousands of jobs
Support to villages deploying solar projects through social benefit grants to Gram-Panchayats	Development of solar electricity generation ecosystem and skills in rural areas.

To achieve the above objectives, Mission 2025 provides attractive incentives and support to all stakeholders. These include:

- Financial incentives: To encourage the distributed solar projects, following incentives will be extended through the Nodal Agency by Government of Maharashtra from the Green Cess Fund.
 - Grant of up to Rs. 25 lakh/substation for ensuring reliable connectivity.
 - The projects injecting energy at 11 kV / 22 kV bus bar would be given an incentive of Rs. 0.25/kWh while projects injecting energy at 33 kV bus bar, would be given an incentive of Rs. 0.15/kWh for the power sold to MSEDCL for the first 3 years. This incentive would be over and above the PPA tariff adopted by MERC and will be only applicable for the projects signing PPA before 31st December 2025 and which are commissioned within the timeline as specified in the bidding documents.
 - Social benefit grant of Rs. 5 lakh / year for three years to Gram Panchayats and
 - Creation of a revolving fund of Rs. 700 Cr. to ensure timely payment to solar developers.
- Measures to ease the availability of land, and address technical, operational, and procedural difficulties faced by project developers.
- Outreach and communication at the district and local level.

Mukhyamantri Saur Krishi Vahini Yojana (MSKVY) 2.0 is being launched to achieve Mission 2025 objectives and to provide a detailed implementation plan. Mission 2025 has also established a robust 'Monitoring and Review Framework' to ensure coordinated actions, timely implementation, and periodic review of mission components.

Mission 2025: Daytime Electricity Supply to Agriculture

1. Preamble

The State of Maharashtra has about 45 lakh agricultural consumers and the largest share of electric pump sets in the country. Maharashtra has always strived to supply adequate electricity to agricultural consumers. Currently farmers are provided electricity supply on rotation basis, that is during day time in some days of the week and during night time on other days. Such supply on rotational basis causes lot of inconvenience for farmers. Farmers also face risks of wild animals, snake bites etc. while irrigating farms during night time. Farmers have been demanding daytime supply to address these problems. For this purpose, Maharashtra Government introduced the Mukhyamantri Saur Krishi Vahini Yojana (MSKVY) in 2017¹ which laid the ground for an effective program to provide daytime supply of electricity to agricultural loads. MSKVY also contributes to reducing the revenue subsidy burden of the state and the cross subsidy burden on industries by enabling procurement of cheaper renewable electricity and helping reduce revenue losses of MSEDCL. A similar approach has been provided in KUSUM scheme of the Government of India.

In the past 5 years, over 500 MW of solar PV power plants have been installed under this scheme which supplies power to 217 agricultural feeders and 87,347 consumers. The Maharashtra Electricity Regulatory Commission (MERC) has approved 2,858 MW of projects as of Oct 2022² which will solarize over 8.5 lakh pumps (avg. 5 HP with 1500 hours of use per year). Several proactive steps have been taken by Government of Maharashtra (GoM), MSEDCL, and MEDA to further strengthen and scale up the scheme. These include:

- The lease rate of Government land for solar power projects has been fixed at Rs.1 per year for a period of 30 years. The lease rate for offering private land is Rs. 1,25,000/- per hectare per year or 6% of the ready reckoner rate, whichever is higher with a yearly 3% increment on the base rate.
- MSEDCL has provided the list of 33/11 and 33/22 kV substations with available spare capacity and created a land bank for facilitating faster installation of solar projects³.

¹

<https://www.maharashtra.gov.in/Site/Upload/Government%20Resolutions/English/201706141206080310.pdf>

² <https://energy.prayaspune.org/renewable-energy-data-portal/maharashtra-solar-feeder>

³ <https://mahadiscom.in/solar-mskvy/index-en.html>

- MEDA has very recently introduced a single window portal for providing an online platform to speed up the process of approvals and registration⁴of RE projects.
- MSEDCL has been regularly putting out large scale tenders for capacity procurement under MSKVY and KUSUM schemes with higher/revised ceiling rates.

It is observed that though the concerned agencies have undertaken many initiatives to implement MSKVY / KUSUM, additional actions, and policy measures are needed to achieve the full potential and benefits of MSKVY / KUSUM. Hence, in order to provide day time power to farmers in Maharashtra in a time bound manner, Government of Maharashtra has decided to launch “Mission 2025”. Mission 2025 will deploy solar power at scale to provide cost effective electricity to farmers for day time supply. This will complement other MSEDCL actions toward this objective.

2. Mission Objectives and Benefits

The overarching objective of MISSION 2025 is to further strengthen and streamline MSKVY, in the form of MSKVY 2.0, to deploy necessary solar capacity at speed and scale to enable provision of day time supply to farmers in Maharashtra. The eligibility of Central Financial Assistance under KUSUM-C would also be explored for projects under MSKVY 2.0. This mission aims to provide the required framework to address technical, operational, financial, and monitoring challenges to achieve significant scale in providing daytime supply to agricultural feeders through solar power across Maharashtra by 2025. Concerted efforts of all stakeholders under the Mission will be required to provide daytime supply to farmers, reduce the cross subsidy burden of other consumers, the subsidy burden of the state and improve the finances of MSEDCL.

To achieve the above objectives, the Mission provides the necessary framework and directions to all stakeholders to provide 7000 MW of solar capacity for daytime supply to farmers by 2025. The Mission considers the current challenges faced by stakeholders and provides strategies to address them. It also introduces a comprehensive review and monitoring mechanism to ensure timely progress and to undertake any policy modifications or other measures as may be required to achieve Mission objectives. This Mission aims to make Maharashtra a leader in providing reliable, daytime power supply to all farmers.

⁴ <https://regridmeda.mahadiscom.in/swPortal/login>

This mission would enable:

1. Daytime supply of electricity to farmers.
2. Reduction in the cross-subsidy burden on industries at present ~ Rs. 13000 Cr. which results in very high industrial tariffs as compared to the industrial tariffs of other states and the provision of subsidies to support the industry. Total subsidies being given to various industries are more than Rs. 3000 Crore.
3. Investments of nearly Rs. 30,000 Crore distributed across various districts in Maharashtra.
4. Rural employment generation of thousands of full-time and nearly twice this number of part time jobs in remote areas arising from power plant construction, operation and maintenance.
5. Social benefit grant payments of over Rs 200 crore to Gram Panchayats in which solar projects are located.
6. Development of solar electricity generation ecosystem and skills in rural areas.
7. Reduction in cost of electricity supply to agriculture and resultant benefits to MSEDCL and Government of Maharashtra.
8. Renewable energy supply to agriculture that contributes to the national goal of decarbonizing the electricity sector and facilitating MSEDCL compliance of renewable purchase obligation.

3. Review of Challenges and MSKVY Implementation Experience

Extensive stakeholder consultations and review of existing solar projects for providing supply to agricultural feeders have brought to light three key challenges in scaling up MSKVY. The Mission has been developed to essentially address these challenges and provide special impetus to improve the speed and scale of project uptake. The following section details the nature and extent of these challenges.

3.1 Technical and operational challenges

The most common challenge cited by project developers was the issue of reliable grid (11 kV feeder) availability and challenges arising due to shortcomings in substation maintenance and equipment. This leads to reduced solar generation which in turn affects the financial viability of projects. Also, in some cases, it is observed that the current operating protocol (roster-based supply for agricultural feeders) at some substations leads to issues of voltage imbalance and reduced evacuation of solar generation. This review also highlighted the need for better load management, technical improvements and in some cases substation capacity (transformer) augmentation to ensure daytime supply to agricultural feeders.

3.2 Financial challenges

The cost of decentralized plants varies a lot depending on site conditions such as land type, location, line development for evacuation, local support, and substation conditions. MSEDCL and developers may need to engage with several entities/agencies to overcome these challenges. This process can be lengthy and introduce unnecessary time delays and additional costs for the project. Due to the relatively small size of these projects, it is not always feasible to accurately estimate such costs at the outset, and may be significant in certain cases, especially in the initial years. Another important concern raised by the stakeholders is regarding the timely payment of bills by MSEDCL. The challenging financial health of MSEDCL, delays, and uncertainty about payments impact the sustainability of these small projects.

3.3 Procedural challenges

Land availability near the substation is an important requirement for MSKVY projects. Recent initiatives to streamline the availability of government land as well as MSEDCL's efforts to create a database of available land pockets will help in addressing this challenge to a certain extent. At the same time, clearances required at various levels for land procurement, seeking required permissions, project registration, and commissioning add to delays in project completion. To address some of these issues, MEDA has recently launched the 'Single Window Renewable Energy Project Portal'⁵.

Taking these challenges into consideration, it is evident that a concerted effort from all stakeholders is essential to achieve speed and scale in the solarization of agricultural feeders to enable daytime supply of power to farmers. With this intention, the Government of Maharashtra has introduced the MISSION 2025.

4. Mission Strategy and Components

Considering the current commissioned solar capacity and capacity in the pipeline, Mission 2025 aims to provide 7,000 MW of solar capacity and to immediately solarize minimum 30 percent of agricultural feeders by 2025 to enable daytime electricity supply to farmers. To achieve the objectives of the Mission, a comprehensive framework, consisting of seven components is designed. This provides clarity regarding project sizing, power procurement approach by MSEDCL, and various incentives to be provided to different stakeholders. This will also enable coordination

⁵ https://www.mahadiscom.in/meda_portal/preface.php

between multiple stakeholders and increased participation from project developers. Accordingly, the integrated mission strategy focuses on seven key components, viz.,

1. Flexible project sizes and procurement strategy
2. Increasing availability of land for solar projects
3. Financial incentives and payment security mechanism to increase scale and speed of solar capacity deployment
4. Measures to address technical and operational challenges
5. Building public support through increased outreach and communication
6. Monitoring and review framework
7. Development of “Mission 2025 Dashboard”

These are depicted in Figure 1 below and elaborated in subsequent sub-sections.



4.1 Flexible project sizes and procurement strategy

For decentralized projects envisaged under the Mission, land availability near the substation, substation connectivity, and feasible project sizes are three important determinants of project viability and developer interest. These factors vary significantly on case to case basis, and hence a rigid, one size fits all approach is not suitable. To address this, the Mission envisages flexibility in project sizes and procurement strategy. Based on detailed substation level analysis of land availability, connectivity possibilities etc., in addition to the current MSKVY approach of MSEDCL, a combination of the following project structures shall be adopted to procure solar capacity under the Mission.

- a. Substation based project capacity to vary from 2 MW to 25 MW
- b. Substation connectivity at either 33 kV or 11 kV (or 22kV in case LV side is 22kV) based on technical feasibility and regulatory norms
- c. Grouping approach: In order to benefit from economy of scale, accelerate project deployment and incentivize larger developers to participate, the “Grouping approach” shall be adopted for project development. Under this approach, a number of distributed projects (e.g. totaling about 100 MW to 250 MW capacity) will be grouped in one tendering and PPA process. This will encourage participation by larger developers and faster deployment of distributed solar capacity.
- d. Cluster approach: Under the cluster approach, projects in nearby geographies will be taken up together for tendering process.
- e. Depending on the suitability of grid connectivity, and land availability developers may be allowed to establish upto 20% of the Grouping / Cluster based project capacity for connectivity at 132 kV or 220 kV substations of MSETCL.
- f. For dispersed substation locations or locations with poor developer response, approaches such as feed-in tariff-based project allocation or developing projects under EPC or other such arrangements shall be considered.
- g. Nodal Agency designated by Government of Maharashtra and MSEDCL shall regularly update substation-wise available capacity, land availability etc. and undertake periodic tendering process.
- h. In specific cases, where larger tracks of land are available and technical feasibility of evacuation and connectivity is established, and if such capacity is justified based on downstream agricultural load, individual projects of sizes up to 100 MW can be considered. As these projects offer economy of scale, generation incentive mentioned in section 4.3.b shall not be available for such projects.

4.2 Increasing availability of land for solar projects

Availability of land for distributed solar projects near substations is a major challenge for large scale and speedy implementation of MSKVY. To address this, in addition to setting attractive lease rent for private lands, and incentives such as exemption from converting land to NA and waiver of local levies / taxes, several additional measures will be undertaken. Department of Land records, MRSAC, MSEDCL, MahaUrja and District Collectors will work together to make necessary land available for solar projects. A land portal shall be developed by MSEDCL or Nodal Agency or another designated agency. This portal shall show locations of MSEDCL substations, land parcels within 5 and 10 km from the substation, and identified government, and private land available for solar projects. This portal shall also

provide various GIS layers to identify parameters such as railway lines, water bodies, flood-prone areas, etc. The revenue department database shall be linked to this portal to provide land ownership and title-related information. All this database shall be made available to developers participating in the bidding process. Limited information such as MSEDCL's substations, their location coordinates, and feasible solar capacity on these substations shall be made available for the general public on MSEDCL's land portal. This will enable land aggregators and individual landowners to assess if their lands are eligible for participation in the scheme in terms of distance from the substation. These measures will ease the challenge of identifying land for solar projects under MSKVY 2.0.

4.3 Financial incentives and payment security mechanism to increase speed and scale of solar capacity deployment

Due to small size and decentralized nature, substation based solar projects incur additional costs. Considering the overall benefits of such projects to farmers, MSEDCL, and their contribution in reducing cross-subsidy and Government of Maharashtra subsidy burden for agriculture, it is prudent to provide certain financial incentives to different stakeholders for achieving speed and scale of implementation. These additional financial incentives will be applicable for all grid connected solar projects of less than 25 MW capacity, which are part of MSKVY 2.0 and selling power to MSEDCL through PPA. All these incentives shall be paid / created out of the Government of Maharashtra's Green Energy Cess Fund and shall be administered by the Nodal Agency.

- a. Government of Maharashtra shall provide a sum of up to **Rs 25 lakhs/Sub-station** where solar feeder projects are connected to the grid. MSEDCL (or MSETCL in relevant cases) shall use this grant for undertaking necessary substation maintenance and improvements (e.g., repairs/replacement of breakers, protection system repairs or modifications, circuit modifications at the s/s) to ensure reliable evacuation from the solar project. These funds will be disbursed after the submission of the DPR for the required substation works. This DPR shall be prepared in consultation with the solar power developer selected through competitive bidding, but MSEDCL / MSETCL shall be the final authority for the preparation of this DPR and execution of the works identified in the DPR in a timebound manner, as MSEDCL / MSETCL is primarily responsible for ensuring adequate and reliable connectivity. MSEDCL / MSETC shall prepare the DPR within two months of the award of the project to the developer and shall ensure completion of the DPR works before the project commissioning.

- b. Government of Maharashtra will also provide an incentive to facilitate early and timely commissioning of the plant and to meet additional costs due to decentralized nature of the project. **The projects injecting energy at 11 kV (or 22kV in case LV side is 22kV) bus bar would be given an incentive of Rs. 0.25/ kWh while projects injecting energy at 33 kV bus bar, would be given an incentive of Rs. 0.15/ kWh for the power sold to MSEDCL for the first 3 years. This incentive would be applicable for the projects signing PPA before 31st December 2025 and which are commissioned within the timeline specified in the bidding documents.** This incentive will be over and above the tariff adopted by the MERC. Nodal Agency shall pay this early commissioning incentive from the funds to be provided by the Government of Maharashtra.
- c. One of the benefits of the decentralized feeder-based solar projects is to contribute to local development and economy. In order to encourage villages to deploy solar projects and to ensure that such projects benefit local development, the Government of Maharashtra will provide a **social benefit grant of Rs. 5 Lakhs/yr. for Gram panchayat in whose area solar projects are installed. This grant will be provided for 3 years from project commissioning.**
- d. Timely payment from MSEDCL is a major concern for developers. To address this, Nodal Agency shall set up a **separate revolving fund of Rs. 700 Cr.** This fund shall be created from Green Energy Cess Fund and shall be used to create a payment security mechanism for enhancing payment security for all projects under MSKVY and KUSUM. This revolving fund shall be created in tranches of **Rs. 100 Cr. for every 1000 MW (or part thereof) of commissioned projects under MSKVY.**

4.4 Measures to address technical and operational challenges

- a. MEDA has already introduced 'Single Window' portal for RE projects. Working and effectiveness of this portal will be reviewed from time to time and necessary modification will be undertaken to truly achieve the objective of Single Window Clearance System. Monitoring and review component of this mission, detailed in the subsequent section, shall ensure periodic consultations with project developers for system review.
- b. In addition to the deployment of solar projects, substation O&M and agricultural supply rostering also needs to be improved to achieve mission objectives. To ensure this, within two months, MSEDCL shall specify Standard Operating Procedures / Protocols covering the following elements to ensure reliable generation, evacuation and daytime supply to agricultural feeders-

- i. Identification of system constraints and preparation of DPR to address these constraints from the Government of Maharashtra grant of upto Rs. 25 Lakh / sub-station.
 - ii. Preparation of SoPs for improved and modified O&M practices at the solar project substation.
 - iii. Preparation of training schedules and training modules for periodic training of solar feeder substation staff.
 - iv. Incorporation of appropriate changes in the agricultural feeder rostering after commissioning of the solar project to ensure day-time supply.
- c. MSEDCL will update the sub-station list and available capacity from time to time. This will better guide prospective developers in project planning. Additionally, MSEDCL, if required in consultation with MSETCL, shall also publish the list of substations and available capacity for inter-connecting projects at 33 kV and above. MSEDCL shall continue to update its land identification efforts to ease land availability for solar projects in the state till the solarization of agriculture feeders is completed.
- d. The project details, such as detailed contours and design of the scheme, feeder level requirement of RE, land availability, and milestones shall be provided to the solar power developers. This will provide the necessary information and instil a sense of confidence in all stakeholders. These efforts will enhance Mission effectiveness. Current standard bidding and tendering documents shall be reviewed to finetune and address any shortcomings in the same.
- e. To achieve the objective of daytime supply to agriculture there may be a need to undertake substation strengthening beyond the Rs. 25 Lakh grant to be provided by the Government of Maharashtra. Based on the substation level study of transformer capacity and agricultural load pattern, in case necessary, MSEDCL shall undertake the required substation and transformer augmentation in an optimal manner as part of its routine annual capital expenditure plans to enable daytime supply to the agricultural load.
- f. The injection of thousands of MW solar power at distribution level also necessitates consideration of other technical, operational, and regulatory aspects to be necessarily handled by MSEDCL and MSETCL. These include the network design aspects, scheduling management, forecasting studies, reactive compensations at different voltage levels etc. Hence a study group will be constituted by MSEB Holding Company or other appropriate agency with the launch of this mission which will study all such aspects for smooth wheeling and reliable integration of generated solar power and maintaining the quality of supply to the farmers. The group will submit its report in six months.

- g. Subject to approval of MERC, provision of net-metering arrangement for meeting auxiliary consumption requirements of Solar plants shall be considered.

4.5 Building public support through increased outreach and communication

Feeder based solar projects are planned for providing daytime supply to AG feeders. These projects also contribute to local development and create local employment. Speed and scale of implementation of these projects would greatly increase if there is adequate local level support and farmers are well informed of the benefits of this scheme. This will also help in the identification of land for projects. The Government of Maharashtra has already constituted district-level committees for this purpose. In addition to this a major 'outreach and communication' campaign, specifically aimed at rural areas with high agricultural consumption will be undertaken in order to improve public awareness about Mission 2025, its benefits, various incentives, and actions of the Government of Maharashtra, MSEDCL, and MEDA. This will involve periodic public meetings and public campaigns at the district level with the involvement of local administration and elected representatives. Detailed plan and material for such an outreach campaign will be prepared within two months from the launch of Mission.

4.6 Monitoring and review framework

Mission 2025 is an ambitious mission. It needs large-scale implementation with coordinated actions across stakeholders (MSEDCL, MEDA, project developers, local administration, etc.) It may also require periodic fine-tuning and adjustments to achieve Mission objectives. For this purpose, it is necessary to have a robust monitoring and review framework, which is detailed below.

- a. Monthly Status report: Nodal Agency or other Designated agencies shall submit a monthly status report to the Government of Maharashtra. MSEDCL, MEDA, MSETCL, and other all other concerned agencies will regularly share all required data with the Nodal Agency or designated agency as needed. This report shall provide
 - i. A summary of various parameters and information in the dashboard.
 - ii. Status of action plan and achievements in the month under review
 - iii. Plan / target and actions for the next month
- b. Monitoring Mechanism at the Government of Maharashtra level: Energy Department, Government of Maharashtra shall hold quarterly review meetings to assess progress towards achieving the Mission objective and to initiate any course correction, and modifications in a timely manner. Periodic stakeholder

consultations shall be undertaken to seek feedback from various stakeholders, including project developers.

- c. As per the MoU dated 27th Dec. 2022, Prayas (Energy Group), shall provide technical and knowledge support to the Government of Maharashtra and other government agencies for periodic review and planning of Mission 2025 so as to achieve the Mission objective of daytime supply to agriculture.
- d. Consulting firm PwC, and other agencies as may be appointed by the Government of Maharashtra shall support the development of various documents, such as MSKVY 2.0 scheme document and other actions required for the effective implementation of Mission 2025.
- e. Honorable Deputy Chief Minister / Energy Minister shall review the Mission implementation every six months.

4.7 Development of “Mission 2025 Dashboard”

A dedicated Mission 2025 dashboard will be developed for full visibility of Mission implementation at the government level. This dashboard shall be developed and maintained by the nodal agency. All concerned stakeholders shall be mandatorily required to update this database as per the SoP to be finalized by the nodal agency. This dashboard shall provide up-to-date status of all aspects of Mission implementation to the Government of Maharashtra. Dashboard shall cover data/information such as,

- a. Identified substations and available capacity for solar projects – District wise
- b. Land availability and all related details – for land bank developed by MSEDCL as well as identified government land – District wise and sub-station wise
- c. Status of tenders – tenders floated, closed, developers finalized, the status of MERC petition for tariff adoption, MERC tariff adoption order, LoA to the developer, and PPA signing.
- d. Project development status – PPA signing, scheduled commissioning date, the status of conditions precedent, current project status, and expected commissioning date.
- e. Commissioned projects – Monthly, Project wise generation, Status of payment to generators, number of AG feeders connected to these substations, and AG consumers on these feeders.
- f. No of feeders/consumers getting day-time supply
- g. Status of outreach and publicity campaign (based on an outreach plan to be developed)
- h. Status of financial incentives – Eligible developers and incentive, Disbursed incentive, Status of substation augmentation grant

5. Achieving MISSION 2025

Mission 2025, is aimed at providing daytime electricity supply to farmers in Maharashtra. This will help address one of the important concerns of farmers in the state. This will not only enable substantial reduction in the cost of supply to agriculture but also reduce the cross subsidy burden on the Industrial and Commercial consumers. This is going to improve the financial health of MSEDCL. This document provides a strategy to implement this Mission in a timebound manner. Mukhyamantri Saur Krishi Vahini Yojana (MSKVY) 2.0 is being launched to achieve Mission 2025 objectives and to provide a detailed implementation plan. Government and various departments will undertake timely actions to effectively implement the strategy enumerated in this document. This may include issuing necessary detailed procedures, standard operating protocols, government resolutions, finetuning the bidding process and bidding documents, seeking regulatory approvals, etc. Mission objectives can be achieved with the active participation of all stakeholders, the Government, MSEDCL, MEDA, MSGENCO and other government agencies/departments, private sector developers, research organizations, and most importantly farmers.

