

32/645/2017-SPV Division
Government of India
Ministry of New & Renewable Energy

Atal Akshay Urja Bhawan
Lodhi Road, New Delhi
Date: 17.01.2024

Order

Subject: Comprehensive guidelines for implementation of Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme

In supersession to this Ministry's Office Memorandum 32/645/2017-SPV Division dated 22.07.2019 regarding guidelines for implementation of Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyaan (PM-KUSUM) Scheme and all the amendments so far under this scheme, it has been decided to issue a comprehensive guidelines for implementation of PM KUSUM Scheme, with following components:

- i. Component-A: Setting up of 10,000 MW of Decentralized Ground/ Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants;
 - ii. Component-B: Installation of 14 Lakh Stand-alone Solar Agriculture Pumps;
 - iii. Component-C: Solarisation of 35 Lakh Grid Connected Agriculture Pumps including Feeder Level Solarization.
2. The comprehensive guidelines for implementation of PM KUSUM Scheme are enclosed.
 3. This is issued with the approval of Competent Authority.

Enclosed: As above.

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To
All concern

Guidelines for Implementation of New Scheme for Farmers for Installation of Solar Pumps and Grid Connected Solar Power Plants

1. Background

- 1.1.** Government of India has taken various policy measures to increase the installed power generation capacity from non-fossil fuel sources by 2030. To provide energy and water security to farmers and enhance their income, de-dieselize the farm sector, and reduce environmental pollution, the Government of India launched PM-KUSUM on 08.03.2019.
- 1.2.** During 2020-21, the scheme was scaled-up and expanded from its pilot stage and notified with due approval of Ministry of Finance. In August 2022, the scheme was extended till March 2026.

2. Components of PM KUSUM

2.1. The PM KUSUM Scheme has the following components:

- i. Component-A: Setting up of 10,000 MW of Decentralized Ground/ Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants by the farmers on their land
- ii. Component-B: Installation of 14 Lakh Stand-alone Solar Agriculture Pumps
- iii. Component-C: Solarisation of 35 Lakh Grid Connected Agriculture Pumps including Feeder Level Solarization

2.2. The PM-KUSUM Scheme allows inter-se transfer of quantities between Component-B and Component-C. All three components of the scheme aim to add Solar capacity of about 34,800 MW by March 2026 with the total Central Financial support of ₹ 34,422 crore.

3. Implementation mechanism

These consolidated guidelines subsume all the previously issued amendments from time to time.

4. Component A

4.1. Salient Features

- i. This Component aims at setting up of 10,000 MW of Decentralized Ground/ Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants by farmers on their land.
- ii. Solar or other Renewable Energy based Power Plants (REPP) of capacity of 500 kW to 2 MW will be setup by Renewable Power Generator (RPG).
- iii. The REPP will be preferably installed within five km radius of the sub-stations in order to avoid high cost of sub-transmission lines and to reduce transmission losses.
- iv. The total energy purchased from these RE plants will be accounted for Renewable Purchase Obligation (RPO) under Decentralized Renewable Energy (DRE) category by the DISCOM.

4.2. Eligibility

- i. The REPP under the scheme would be installed by the farmers on his own land either directly by himself or in partnership with group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO)/Water User associations (WUA), or through a developer.
- ii. Group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO)/ Water User associations (WUA) etc. can opt for developing the REPP through developer(s). The farmer may provide his land to the DISCOM, which will then be considered as RPG in this case. In such a case, the land owner will get lease rent as mutually agreed between the parties. The lease rent may be in terms of Rs. per year per acre of land or in terms of Rs. per unit energy generated per acre of land area. The farmer(s) may opt for payment of lease rent directly in their bank account by the DISCOM, from the payment due to the developer. A model Land Lease Agreement to facilitate the beneficiaries is as per Annexure I. However, the terms of Land Lease Agreement may be finalised with mutual consent of concerned parties.

4.3. Notification of sub-station wise generation capacity and intent to setup REPP

- i. DISCOM shall assess and notify RE generation capacity that can be injected into 33/11 kV or 66/11 kV or 110/11 kV sub-station in rural areas and place such notification on its website for information of all stakeholders.
- ii. DISCOMs will notify sub-station wise surplus capacity which can be fed from such RE power plants to the Grid
- iii. DISCOMs should prefix the levelized tariff.
- iv. DISCOM shall invite applications from interested beneficiaries for setting up the renewable energy plants.
- v. The renewable power generated will be purchased by DISCOMs at the pre-fixed levelized tariff.
- vi. In case the aggregate capacity offered by Applicants is more than notified capacity for a particular sub-station, bidding route will be followed by DISCOMs to select Renewable Power generator and in such cases the pre-fixed levelized tariff will be the ceiling tariff for bidding.

- vii. For setting up of plant, land will be required. To facilitate farmers willing to lease out their land for development of RE plants near the notified substation(s), DISCOMs may make a list of such farmers and place that list on their website.
- viii. However, the leasing of land of any farmers will be a bi-partite agreement between the farmer and the developer, and the DISCOM will not be held responsible for failure in getting the land leased out to a developer.

4.4. Application procedure & Selection of REPP

- i. DISCOM may invite applications for Expression of Interest (EOI) from prospective RPGs, through their online portal.
- ii. The RPGs shall submit their application for setting up REPP to DISCOM/SIA, as per prescribed format.
- iii. The application should be submitted along with a non-refundable processing fee from the interested RPGs, which in no case shall be higher than Rs. 5000 per MW or part thereof of the capacity applied for.
- iv. In case the total aggregate capacity of eligible applications received for a particular sub-station is less than or equal to the capacity notified for connectivity at the sub-station, Letter of Award (LoA) will be awarded to all eligible applicants for procurement of renewable power at a pre-fixed levelized tariff on first come first serve basis within one month from the receipt of application
- v. In case the total aggregate capacity of eligible application received for a particular sub-station is more than the capacity notified for connectivity at the sub-station, then DISCOM or any agency authorized by the DISCOM shall invite Bids from all these applicants.
- vi. Selection of bidders will be based on the lowest tariff offered in the ascending order as quoted by the bidders in the closed bid or e-reverse auction. In such cases, the pre-fixed levelised tariff will be the ceiling tariff for bidders.
- vii. In case of bidding, all eligible applicants will have to submit tariff bids within a prescribed time. Selection of bidders will be based on the **lowest tariff** offered in the ascending order as quoted by the bidders in the **closed bid**. LoA will be awarded to all successful bidders.

4.5. Clearances required from the State Government and other local bodies

The RPG is required to obtain necessary clearances as required for setting up the REPP in coordination with DISCOMs. District Collectors should facilitate the clearances required for issues related to land permissions, right of way, etc.

4.6. Power Purchase Agreement (PPA)

- i. A model PPA (Power Purchase Agreement) to be executed between RPG and DISCOMs is as per Annexure II.
- ii. The duration of PPA will be 25 years from Commercial Operation Date (COD) of the project.
- iii. The PPA will have to be executed by RPG within two months from the date of issue of LoA by DISCOM or any agency authorized by the DISCOM.
- iv. The DISCOM will be obliged to buy the entire power from RPG within the contract capacity.

- v. The RPG will be free to operate the plant after expiry of the 25 years of PPA period if other conditions (like land lease, etc.) permits.
- vi. However, any extension of the PPA period beyond 25 years shall be through mutual agreement between the RPG and DISCOM.
- vii. As a payment security measure, DISCOM will have to maintain Escrow Arrangement as defined in the PPA.

4.7. Bank Guarantees (BG)

- i. In case of bidding, the RPG shall provide Earnest Money Deposit (EMD) of Rs. 1 Lakh/MW in the form of Bank Guarantee along with EoI.
- ii. The EMD of Rs. 1 Lakhs per MW will be converted into Performance Bank Guarantee (PBG) for the successful bidders, who have signed the PPA within stipulated time period.
- iii. In case the selected RPG fails to execute the PPA within the stipulated time period, the Bank Guarantee equivalent to EMD shall be encashed by DISCOM as penalty.
- iv. In case any bidder is not selected, DISCOM shall release the EMD within 15 days of the date of issue of LoA to selected RPG(s).
- v. The PBGs shall be valid for a period of 15 months from the date of issue of LoA for the REPP.
- vi. The PBG will be returned to the RPG immediately after successful commissioning of REPP, after considering any penalties due to delay in commissioning as per provisions stipulated in the Guidelines.

4.8. Connectivity

- i. The selected RPG will be responsible for laying of dedicated 11 or 33 kV, 66/11 kV or 110/11 kV, line from REPP to sub-station, construction of bay and related switchgear at sub-station where the plant is connected to the grid and metering is done.
- ii. RPG can get the transmission line constructed through DISCOM by paying the applicable cost and other charges. RPG will generally be responsible for maintaining this dedicated transmission line.
- iii. In case more than one bidder are awarded projects to be connected to same Sub-station, they shall be permitted to co-ordinate with each other for setting up common transmission line for feeding to Sub-Station if they so desire and with the approval of DISCOM. The RPG shall comply with grid connectivity and other regulations as applicable.

4.9. Release of Performance Based Incentive (PBI) to DISCOM

- i. DISCOM will be eligible to get Performance Based Incentive (PBI) @ Rs. 0.40 per unit purchased or Rs. 6.6 lakh per MW of capacity installed, whichever is less, for a period of five years from the COD.
- ii. To avail the PBI, DISCOM shall submit following documents after completion of one year from the COD and every year thereafter till five years:
 - (a) Timely payment of monthly lease rent, if applicable, to the land owner of the project.
 - (b) Monthly units purchased from the plant and corresponding payment made to the project developer.

- iii. Applicable PBI would be released to the DISCOM after submission of these documents by DISCOM to MNRE.
- iv. The DISCOMs can, if they desire so, pass on the PBI given to DISCOMs by the Central Government under this component, to the REPP owner to get more competitive tariff of RE Power.

4.10. Timeline and Penalty

- i. The selected RPG shall commission the solar power plant within 15 months from date of issuance of LoA.
- ii. The DISCOM is obliged to purchase power from the commissioned REPP even in case of early commissioning.
- iii. A duly constituted Committee of DISCOM officials will physically inspect the Plant in not more than 03 days from the date of receiving a call from the RPG and certify successful commissioning of the plant.
- iv. In case any RPG fails to achieve this milestone, DISCOM shall encash the Performance Bank Guarantee (PBG) in the following manner:
 - (a) Delay up to six months – The PBG on per day basis and proportionate to the balance capacity not commissioned.
 - (b) In case the commissioning of the solar power plant is delayed over six months, the PPA capacity shall stand reduced / amended to the Project capacity commissioned at the end of six month from scheduled Commissioning Date.
- v. In case of delays of plant commissioning due to the reasons beyond the control of the RPG, DISCOM after having satisfied with documentary evidences produced by the RPG for the purpose, can extend the time for commissioning date without any financial implications to the RPG.

4.11. Quality Control, Monitoring and Maintenance

- i. In order to ensure only quality systems are installed, prevailing MNRE/BIS specifications and quality control orders applicable for solar modules, inverters, Balance of System (BOS) and other equipment shall be followed. These shall be monitored by State Implementing Agency (SIA) periodically.
- ii. The SIA would be responsible for ensuring Quality Control, proper maintenance and monitoring of REPPs.
- iii. SIA may assign technical consultants to assist farmers with the preparation of DPR and financial models who could also provide capacity building and guidance on the best practices of system installation and O&M.

4.12. Roles and responsibilities of stakeholders

4.12.1. Ministry of New and Renewable Energy

- i. MNRE will provide Procurement Based Incentive (PBI) to the DISCOMs @ 40 paise/kWh or Rs.6.60 lakhs/MW/year, whichever is lower, for buying solar/ other renewable power under this scheme.
- ii. The PBI will be given to the DISCOMs for a period of five years from the Commercial Operation Date of the plant. Therefore, the maximum PBI that shall be payable to DISCOMs will be Rs. 33 Lakh per MW for the entire period.

4.12.2. DISCOMs

- i. The DISCOMs/SIAs shall aggregate the demand and send their proposal for sanction under the scheme along with details on their readiness to implement the Component A of the scheme, to MNRE.
- ii. Implementing Agencies will ensure transparency & objectivity in allocating capacity
- iii. The DISCOMs will ensure “must-run” status to the solar/ other renewable power plants installed under this scheme and will keep the feeders ‘ON’ during sunshine hours of a day.
- iv. DISCOM shall act as facilitator to the beneficiaries in implementation of this scheme.
- v. In case RPG has taken land from a farmer/group of farmers on lease for the project, the amount of monthly lease rent would be paid by the DISCOMs to the lessor directly in his/her bank account before 5th day of the month following the month for which the lease rent is due. In such a case, the lease rent paid by the DISCOM will be deducted from monthly payment due to the RPG.

4.12.3. State Implementing Agency (SIA)

- i. SIA will coordinate with State/UT, DISCOM and farmers for implementation of the scheme.
- ii. SIA will assist the farmers in project development activities including formulation of DPR, PPA/EPC contracts, getting funds from financial institutions, etc.
- iii. SIAs will provide the handholding support required by farmers/developers, like availing financing from banks, etc. It will also coordinate with District Authorities for ease of implementation.
- iv. A State level Committee under the chairmanship of Principal Secretary (Renewable Energy/Energy) will be setup by the participating SIA of that State. The committee will be responsible for settlement of any issues arising during selection of solar/ other renewable energy-based power plants and their implementation.
- v. SIA will be responsible for coordinating/organizing the quarterly meetings of the State Level Committee.
- vi. SIAs shall ensure publicity of the scheme and create awareness through advertisements etc, and monitor the implementation of the scheme.
- vii. The SIA will be eligible to get service charge of Rs. 0.25 Lakh per MW after commissioning of the projects.

4.12.4. Renewable Power Generator (RPG)

- i. RPG will be responsible for signing PPA and installing the plant as per provisions of scheme guidelines
- ii. RPG must adhere to applicable rules and regulations and make necessary compliances towards proper commissioning and operation of the plant during the PPA period.