

No.: 318/17/2024-Grid Connected Rooftop (Part-15)
Government of India
Ministry of New and Renewable Energy
Mission Directorate, PM-Surya Ghar: Muft Bijli Yojana

Atal Akshay Urja Bhawan
Lodhi Road, New Delhi-110003
Dated: 28.12.2024

Office Memorandum

Subject: Operational Guidelines for Implementation of "Payment Security Mechanism" Component and "Central Financial Assistance" Component for RESCO Models/ Utility Led Aggregation Models of PM-Surya Ghar: Muft Bijli Yojana.

This refers Ministry's order No. 318/17/2024-GCRT Division dated 16th March 2024 vide which sanction was issued for the PM-Surya Ghar: Muft Bijli Yojana, aimed at installing rooftop solar plants in one crore households, with a total financial outlay of Rs. 75,021 crore.

2. The Operational Guidelines for Implementation of "Payment Security Mechanism" Component and "Central Financial Assistance" Component for RESCO Models/ Utility Led Aggregation Models under PM-Surya Ghar: Muft Bijli Yojana is enclosed.
3. This issues with the approval of competent authority.


(Divyanshu Jha)
Deputy Secretary
d.jha1989@ias.nic.in

To

1. ACS/Principal Secretaries/Secretaries (Renewable Energy/Energy/Power) of all States/ UTs
2. CMDs/MDs of Discoms/State Nodal Agencies of all States/UTs

Copy for information to:

1. O/o Hon'ble Minister of New & Renewable Energy
2. O/o Hon'ble Minister of State of New and Renewable Energy
3. O/o Secretary/AS/JS&FA, MNRE
4. O/o Secretary, Ministry of Power
5. O/o CMD, REC
6. All Advisers & Group Heads, MNRE
7. Director (NIC) for uploading on Ministry's website

Guidelines for PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Aggregation Models and

Payment Security Mechanism

1. Background

- a. The Government of India has approved the PM Surya Ghar: Muft Bijli Yojana on 29th February, 2024 to increase the share of solar rooftop capacity and empower residential households to generate their own electricity. The scheme has an outlay of Rs 75,021 crore and is to be implemented till FY 2026-27. The administrative approval was granted to the scheme vide Order No. 318/17/2024-Grid Connected Rooftop dated 16th March, 2024.
- b. The Financial Outlay for the scheme includes Central Financial Assistance to 1 crore residential consumers for installations of rooftop solar. The scheme guidelines for release of CFA to residential consumers for installations undertaken by the consumers through registered vendors (capex mode) have been issued vide OM no. 318/17/2024-Grid Connected Rooftop dated 7th June, 2024. However, these those guidelines do not cover RESCO (Renewable Energy Service Company) models (where a third party entity other than the consumer makes the initial investment, either wholly or partly) or Utility Led/State Led Aggregation Models (ULA) (where a state entity invests wholly or partly on behalf of consumers on an aggregate basis).
- c. Additionally, state governments/DISCOMs/State designated entities may innovate new models of procurement/generation of power generated by rooftop solar under the Renewable Energy Service Company (RESCO) models under appropriate metering arrangements and therefore leverage distributed renewable energy generation within their network. This model would be particularly relevant in RTS installations in large number of small households

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

through state/state entity led interventions. Rooftop Solar deployment expansion can also be undertaken by DISCOMs through utility led models wherein the DISCOM plays roles with regards to demand assessment and aggregation, consolidation of procurement from RTS installations (gross, net or other variations in metering) and ownership of RTS plants (on its own or through intermediary contractual intermediaries). These models will be unique to the DISCOM opting for it and will be particularly suitable for large scale installations in cities wherein DISCOMs/State GENCOS/other State entities can invite cluster-based bids for RTS installations that are backed by power purchase agreements with DISCOMs.

- d. The scheme has also created a separate component for Payment Security Mechanism (PSM) for de-risking investments in RESCO based models in RTS. The utilization of the payment security fund are to be done for ensuring timely payments to RESCO developers and to insulate them from delays in settlement of payments from the DISCOMs/contracting party. These guidelines will also lay down the method of management and utilization of payment security mechanism funds provisioned under the scheme.

2. Scope

- a. These guidelines pertain to the implementation of the Component “Central Financial Assistance (CFA) to residential consumers” for eligible consumer categories only through RESCO models and Utility Led Aggregation (ULA) Models and for the Component “Payment Security Mechanism”.
- b. The implementation period of the scheme shall be till 31st March, 2027.

3. Objectives

The key objectives of the scheme component are:

- a. To establish the implementation mechanism for supporting installations through RESCO and ULA models for rooftop solar for eligible consumer categories

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

- b. To establish the method of leveraging payment security mechanism to ensure timely payments to RESCO developers
- c. To enable DISCOMS/State Governments/State Designated Entities to support rooftop solar development under RESCO and ULA models of deployment

4. Central Financial Assistance

- a. **Eligibility:** For the purpose of CFA, residential RTS plant would be the grid connected solar power system tagged to a particular residential power connection of the local DISCOM and will only include installations on a roof/terrace/balcony or on top of elevated structures. Special RTS installations such as Building Integrated PV (BiPV) systems shall also be considered eligible for CFA support. To clarify, installations under metering mechanisms such as Group Net Metering and Virtual Net Metering shall be eligible for CFA and if the metering arrangement is approved by the DISCOM.
 - CFA for ULA proposals shall be released against those households for which the capacity installed is up to 3 KW.
- b. **RESCO Mode:**
 - i. The RESCO Mode is considered to be one wherein the consumer herself does not fund the initial investment into the rooftop solar system and is not the owner of the asset for at least 5 years of operations. Instead, the system is procured, installed and maintained for a period not less than 5 years (project period) by a Renewable Energy Service Company (RESCO).
 - ii. The consumer only pays for the electricity consumed from the rooftop solar system on a tariff basis to the RESCO operator and/or may be compensated by the RESCO operator for roof utilization rights. The plant ownership may be transferred to the consumer after the project period as

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

per the terms and conditions agreed to between the consumer and the RESCO entity.

- iii. Alternatively, the RESCO may enter into an arrangement with the DISCOM for sale of balance power, leftover post consumption by consumer to the grid under a power purchase agreement. RESCO mode shall also include other similar models such as hybrid RESCO wherein the consumer, vendor & DISCOM may sign a tripartite agreement rather than separate bilateral agreements to establish the terms of engagement between each other.
- iv. The DISCOMs may establish necessary mechanisms to facilitate RESCO models in their distribution network including but not limited to collection of RESCO operator's tariff bills from the consumer on behalf of the RESCO.

- c. **Utility Led Aggregation Models: ULA Models** for the purposes of these guidelines, include business models where the distribution utility (DISCOM) or the State Government or some other state designated entity with majority state ownership (State Nodal Agency, State Generation Company, Autonomous bodies etc.), separately or in some combination, install rooftop solar projects on behalf of individual residential sector households. For this purpose, the utility may mobilize resources from the respective state government, its own internal resources, contributions made to it for this purpose under Corporate Social Responsibility or any other resources mobilized for providing rooftop solar to households under ULA model. These may include two models with additional sub-variants possible under each Model.

Model I: Utility owned Assets

- i. Under ULA Utility Owned Asset Model, the installed rooftop solar systems are not owned by the residential household for the project period, which shall not be less than 5 years. The ownership may subsequently be

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

transferred to the household after the completion of the project period, as per the arrangements decided by the concerned Utility.

- ii. Under this mechanism, the Utility may aggregate demands of interested consumer of eligible categories and implements the installation of the system on behalf of individual residential households as a RESCO entity. The utility in turn, may either get these installations carried out under an EPC mode (Engineering, Procurement, and Construction) or through sub-RESCO entities that implement the project. These EPC vendors or sub-RESCO entities shall be selected through an open, competitive and transparent bidding processes or by matching feed-in tariffs established by the respective Electricity Regulatory Commission, depending on the model being implemented by the Utility.
- iii. In such cases, the Utility is responsible for the payment against the contracts to EPC or sub-RESCO players for the project period. The Utility may sell the power generated to the consumer or the DISCOM or a mix of the two under a Power Purchasing Agreement. The utility may also provide roof rent/lease rent to the households, if applicable or charge an EMI/Service charge from households in order to repay any debt/liabilities it might have incurred for providing the rooftop service.

Model II: Consumer owned Assets

- i. Under the ULA Consumer Owned Asset model, the Utility provides an additional grant component for the installation and the installed rooftop solar systems are owned by the consumer from the date of commissioning.
- ii. Under this mechanism, the Utility may aggregate demands of interested consumer of eligible categories and implement the installation of the

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

system on behalf of individual residential households as an EPC entity. The utility in turn, may either get these installations done under an EPC mode (Engineering, Procurement, and Construction). These EPC vendors shall be selected/empaneled through an open, competitive and transparent bidding process.

- iii. In such cases, the Utility is responsible for the payment against the contracts to EPC vendors for the project period. The Utility may choose to collect some contribution from the consumer as the consumer share, which should not be higher than 10% of the benchmark cost, i.e. Rs 5,000/ kW_p (As per current benchmark).
 - iv. The Consumer installation may be metered under net metering, gross metering or any other metering mechanism approved by the concerned Electricity Regulatory Authority.
- d. No CFA will be provided to non-residential segments of consumers (including Government segment, commercial and industrial segment etc.).
 - e. **CFA Structure:** The CFA structure for residential sector and RWAs/GHGs (for common facilities) shall be as per the provisions of the OM no. 318/17/2024-Grid Connected Rooftop dated 7th June, 2024. The CFA shall be fixed as per benchmark rates established under the scheme as per the above OM, irrespective of any price/cost discovery undertaken by the state entities under ULA.
 - f. **Additional Components:** The rooftop solar installation may include additional technology components such as small wind hybrids, battery storage, solar tracker systems etc. However, the CFA calculation shall be based on the CFA structure under the scheme as per capacity of solar modules installed in the system.
 - g. **Domestic Content Requirement:** Solar modules used in the installation must satisfy the Domestic Content Requirement condition i.e., domestically manufactured modules manufactured from domestically manufactured cells. This

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

is an essential condition for the installation to be eligible for the CFA. Use of non-DCR modules in any form in the installation shall render the installation ineligible for CFA. RESCO will submit a declaration from the Original Equipment Manufacturer (OEM) certifying that the modules used in the installation meet DCR standards. The RESCO shall also comply with any other mechanisms for DCR traceability established by the Ministry.

- h. **Pre-existing RTS:** Households with pre-existing rooftop solar shall not be considered eligible under RESCO and ULA Models.
- i. **Metering Arrangements:** RESCO and ULA based installations under metering mechanisms such as Net Metering, Net Billing, Gross Metering, Group Net Metering or Virtual Net Metering shall be eligible for CFA, subject to their compliance with the relevant regulations as established by the concerned Electricity Regulatory Commission.
- j. **Non Metered Grid Connected Systems:** Systems that are not feeding into the grid but are connected to the grid (behind-the-meter systems, battery hybrid systems etc.) shall be eligible for CFA under the scheme subject to approval by the respective Electricity Regulatory Commissions. In such cases, the DISCOM will inspect the installation, ensure the functioning of the reverse power relay protection and incorporate suitable remarks in the report. However, Off-grid connected installations will not be eligible for CFA under the scheme.
- k. **Generation Data:** All installations in ULA/RESCO mode shall ensure generation data reporting (at least hourly frequency) and shall provide necessary integration facility to the National Portal.

5. Method of Implementation

a. ULA

- i. The concerned State/UT designated agency (SDA) shall prepare the proposal, including required budgetary outlays at the State/UT level,

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

business models, status of regulatory clearances, funding arrangements etc. and seek the approval of the respective State/UT government on the proposal for ULA implementation in the State/UT.

- ii. Thereafter, the proposal shall be vetted by a Technical Committee constituted in MNRE, which shall approve, reject or approve with conditions within 30 days of submission of the proposal. The committee shall consider, among other things, the nature of targeting of beneficiaries under the ULA, possible impact on capex based installations and any distortions thereof, adoption of rooftop solar in small households, viability of business models and benefits to DISCOM and state finances and other aspects of the proposal while vetting the proposal. The Committee will also establish the stages and manner of release of funds for the implementation of ULA.
- iii. The Technical Committee shall comprise of the following representatives:
 1. Mission Director, PM Surya Ghar: Muft Bijli Yojana
 2. Representative from National Programme Implementation Agency (NPIA)
 3. Representative from Ministry of Power
 4. Representative from Central Electricity Authority
 5. Representative from IFD, MNRE
 6. Any other member invited by the Mission Director
- iv. Once the proposal is approved, the ULA will be provided a dedicated login on the National Portal wherein it will be able to create a project populate the requisite project completion reports along with the details of consumer account numbers that have been tagged to these installations.

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

The National Portal will also require consent from these consumers in the form of consumer consent form and consumer authentication that the ULA will have to provide on the portal as formal consent for installation of rooftop solar under the ULA arrangement as well as consent for redemption of CFA in favor of the utility.

- v. **Services:** The ULA proposal shall clearly identify provisioning of services for repairs/maintenance of the RTS plant during the project period. The utility shall be covered by the warranties given by the respective OEMs on the system components for any future replacement of malfunctioning components and these warranties shall be transferred from the utility to the consumer at the end of project period. Any deficiency of the RTS system leading to non-disbursal of CFA/non-commissioning of the RTS by the DISCOM on account of system quality/component issues shall be rectified by the utility. In all cases, the utility shall adhere to the minimum technical specifications as specified in the ULA proposal.
- vi. **Inspection:** The concerned DISCOM shall conduct a physical inspection of the system, sign the appropriate agreements with the Utility/RESCO, conduct an inspection and approve the application for release of CFA. Alternatively, the DISCOMs may send back the application for corrections or reject the claim with adequate justification. The CFA will be processed only after the DISCOM has physically verified the systems and completed the process on the National Portal. In case the State government so deems fit, the ULA proposal may specify that the inspection of installed systems shall be carried out by and the claims for subsidy release made by the state designated agency rather than the DISCOM, in cases where these entities are different. However, the utility must ensure that all statutory aspects as per extant regulations have been adhered to. After the commissioning of

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

installations under the ULA, the CFA shall be calculated and released to the entity concerned as per the proposal approved by the Technical Committee.

- vii. The Energy Accounting Mechanism shall be duly approved by the concerned Electricity Regulatory Authority prior to initiation of the project.

b. RESCO

- i. The NPIA shall register RESCO Vendors through the National Portal. RESCO Vendors shall have to submit a bank guarantee of Rs 25 lakh for registration as RESCO vendors. This registration shall be valid for the entire country and no state specific RESCO vendor registration shall be required. This bank guarantee shall be waived in case the RESCO vendor is a State government owned/controlled entity or a Central or State public sector enterprise. The bank guarantee should be valid for at least 5 years beyond the period in which the latest installation by the RESCO has been made under the scheme.
- ii. The RESCO Vendors shall have dedicated logins on the National Portal on which they would be able to create separate "Projects". These Projects shall be tagged to particular DISCOMs and shall be populated with consumer account numbers of consumers belonging to respective DISCOMs and who have given consent for choosing the particular vendor as their RESCO partner. Applications for installations for these consumers shall be submitted by the vendor on their behalf, along with requisite authorization documents.
- iii. The tariff arrangement between the RESCO and the consumer shall be mutually established as a commercial transaction; however the RESCO must clearly inform the consumer that the tariff being offered includes the

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

benefits of the central financial assistance that will be claimed by the RESCO vendor.

- iv. The consent of the consumer shall be provided through necessary document upload and OTP based consumer consent. Other consent methodologies, including use of aadhar number shall be done after proper legal and regulatory approvals and notifications by the Ministry.
- v. The individual project installations within the project shall be carried out by the vendor after mobilizing consumers and for each completed installation, the project completion report shall be uploaded on the portal. These individual installations shall be inspected and approved by the DISCOM, after which the NPIA shall transfer the CFA relating to the installations done to the RESCO Vendor.
- vi. Services: Registered RESCO vendors shall provide the services to the consumers for repairs/maintenance of the RTS plant free of cost for the project period from the date of commissioning of the plan. Non-performing/ under-performing system component will be replaced/repaired free of cost in the project. The consumer shall be provided with the warranties given by the respective OEMs on the system components for any future replacement of malfunctioning components after the project period. Any deficiency of the RTS system leading to non-disbursal of CFA/non-commissioning of the RTS by the DISCOM on account of system quality/component issues shall be rectified by the vendor. In all cases, the vendors shall adhere to the minimum technical specifications provided in the scheme in their installations.
- vii. Penalties: The Implementing agency (State DISCOM or agency) or MNRE officials or any other designated agency may inspect the ongoing installation or installed plants. In case the systems are not as per standards,

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

nonfunctional on account of poor quality of installation, or in non-compliance of scheme guidelines, the respective registering authority will reserve the right to de-register the vendor and/or levy such penalties as may be prescribed, after giving due notice to the vendor.

- viii. Minimum Technical Specifications: The Minimum Technical specifications shall be as per the terms established in Annexure to OM no. 318/17/2024-Grid Connected Rooftop dated 7th June, 2024 and amendments thereof. It will be the responsibility of the vendors to ensure that the system meets the minimum technical specifications. This will also be checked by the DISCOMs at the time of inspection.
- ix. DISCOM Inspection: The concerned DISCOM shall conduct a physical inspection of the system, sign the appropriate agreements with the RESCO, conduct an inspection and approve the application for release of CFA. Alternatively, the DISCOMs may send back the application for corrections or reject the claim with adequate justification. The CFA will be processed only after the DISCOM has physically verified the systems and completed the process on the Portal.

6. Payment Security Mechanism for Rooftop Solar (PSM-RTS)

- a. There will be a corpus of Rs 100 crore for a Payment Security Mechanism that would be managed and administered by the NPIA in an interest-bearing bank account.
- b. ULA proposals from State/UT governments can access the PSM-RTS in order to provide payment security for projects in which RESCO partners have been contracted with, through an open transparent bidding process for tariff discovery.

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

- c. Under this arrangement, the ULA selected RESCO shall contribute to the PSM Corpus through a one-time PSM fee of Rs 2000/installation to be undertaken by it under the ULA.
- d. The NPIA shall enter into a bilateral agreement with the State designated entity for timely and regular settlement of RESCO dues subject to fulfillment of the following conditions:
 - i. State Guarantee to the NPIA regarding payment of dues to RESCO
 - ii. Commitment to pay dues to NPIA and payment of interest charges for delayed payments at marginal cost of funds based on lending rate for one year of the State Bank of India, as applicable on the 1st April of the financial year in which the period lies, plus 5% for the first month, with a further increase of 0.5% for each additional month of delay, but not more than 3% higher than the base rate at anytime that have been paid out through the PSM-RTS
 - iii. Centralized and automated billing for RESCO dues based on connected generation meters for all installations
- e. The Utility shall settle the claims of the RESCO partner; however, in case of failure to make payments within 15 days of raising of claims, the NPIA shall make the necessary payments to the RESCO vendor as per the RESCO-Utility agreement. The NPIA shall simultaneously raise the request to the ULA for settlement of the dues along with interest. The Utility must strive to make the pending payments to the NPIA as quickly as possible, along with the due interest based on the marginal cost of funds based on lending rate for one year of the State Bank of India, as applicable on the 1st April of the financial year in which the period lies, plus 5% for the first month, with a further increase of 0.5% for each additional month of

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

delay, but not more than 3% higher than the base rate at anytime and the amount shall be recouped to the PSM-RTS in its entirety.

- f. The PSM will be utilized only for making payments for demands raised based on automated billing system, irrespective of any other disputes, claims etc. that may be made by the utility or the vendor.
- g. The PSM may be supplemented through other grants, funds and sources after due approval of the Ministry.
- h. The Technical Committee may oversee and monitor the implementation of PSM process and recommend modification, if any, for seeking due approval.
- i. In case the ULA is a distribution utility, the provisions of the Late Payment Surcharge Rules 2022 and amendments thereof shall apply to the outstanding dues raised by the RESCO from time to time.
- j. The corpus amount with interest and other earnings shall be refunded to Consolidated Fund of India after completion of the achievement of objective of the corpus.

7. Saving Provision

In case of delays in creation of necessary IT processes on National Portal for implementation of ULA/RESCO/PSM, the National Programme Implementation Agency may accordingly establish standard operating procedure for NPIA and SIAs for managing ULA/RESCO/PSM related processes manually or outside the portal itself.

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism

8. Amendment to Scheme Component Guidelines

MNRE may make necessary amendments in the scheme guidelines within the overall spirit of the Cabinet approval or issue any clarification to remove difficulties in the implementation of the scheme, as and when required, with the approval of Hon'ble Minister, New and Renewable Energy.

PM Surya Ghar: Muft Bijli Yojana

RESCO, Utility Led Models and Payment Security Mechanism