

F. No. 328/7/2017-EAP  
Government of India  
Ministry of New and Renewable Energy

\*\*\*

Block No. 14, CGO Complex,  
Lodhi Road, New Delhi-110003

Dated: 7 August, 2018

**ORDER**

Subject: Administrative Approval of "Scale Up of Access to Clean Energy Scheme" for the period FY 2018-19 and FY 2019-20.

I am directed to convey the sanction of the President of India for launch of "Scale Up of Access to Clean Energy" Scheme for the period FY 2018-19 and FY 2019-20. Operational guidelines for implementation of the Scheme are placed at Annexure.

2. This Order is for implementation of Scheme on "Scale Up of Access to Clean Energy" during FY 2018-19 and FY 2019-20 which is one of the four components under the UNDP/GEF Project on Scale Up of Access to Clean Energy for Rural Productive Uses (India ACE Project) being implemented in the states of Assam, Madhya Pradesh and Odisha. The funds for implementation of the Scheme would be met from Plan allocation made in each financial year during the tenure of the scheme, with an overall Plan Outlay of Rs. 70 Crores.

3. Year-wise expenditure involved on account of financial support from the Government of India is as given below:

Year	Sanctioning target (No. of beneficiaries)	Proposed Outlay (₹ in Crore)
2018-19	15000	30
2019-20	15000	40
<b>Total</b>	<b>30000</b>	<b>70</b>

4. The implementation of above mentioned Scheme will come in to effect from the date of issue of Administrative Approval along with its Operational Guidelines.

5. This sanction issues in exercise of powers delegated to this Ministry and with the concurrence of IFD vide their Dy. No. 232 dated 02.08.2018.

Enclosed: As above.

  
(J. K. Jethani)  
Scientist-E

To  
The Pay and Accounts Officer  
Ministry of New and Renewable Energy  
New Delhi

Copy for information and appropriate action to:

1. All Central Ministries and Departments;

2. Principal Secretaries/Secretaries(Energy Departments) of Assam, Madhya Pradesh and Odisha
3. State Nodal Agencies of Assam, Madhya Pradesh and Odisha
4. State Rural Livelihood Missions of Assam, Madhya Pradesh and Odisha
5. Municipal Commissioners of Assam, Madhya Pradesh and Odisha
6. CMD, IREDA, first floor, East Court ,Indian Habitat Centre, Lodhi Road, New Delhi
7. D.G., National Institute of Solar Energy Gwal Pahari, Gurgaon, Haryana

Copy also to:

1. PS to Hon'ble Minister for Power and New & Renewable Energy
2. PPS to Secretary, MNRE
3. PPS to AS, MNRE
4. PPS to AS & FA, MNRE
5. All Advisers & Group Heads/JS(GKG)
6. All Directors, PSOs
7. All Under Secretaries in MNRE
8. Director (NIC) to upload this on the Ministry's website
9. CA, MNRE/Cash Section
10. Hindi section for Hindi version
11. Sanction folder

  
(J. K. Jethani)  
Scientist-E

## **Operational Guidelines for Implementation of Scale-Up Of Access To Clean Energy Scheme**

### **I. Background:**

The Ministry of New and Renewable Energy (MNRE), GoI is implementing a project titled “Scale Up of Access to Clean Energy (ACE) for Rural Productive Uses”, an initiative to enhance the use of reliable and affordable renewable energy for rural productive uses/livelihoods in un-served and under-served areas in 3 states; Assam, Madhya Pradesh and Odisha for strengthening rural livelihoods, improving income generation and reduce use of fossil fuels.

The project’s focus is on access to clean energy for rural livelihoods. The project is based on the premise that lack of access to affordable and reliable energy hinders the growth of various critical rural livelihoods activities such as poultry, dairy, horticulture, animal husbandry, fisheries, and other village industries. It is expected that decentralized renewable energy for electrical, thermal and mechanical applications will catalyse rural livelihoods activities to reduce poverty, increase employment and improve the rural quality of life.

The estimated total project cost of this scheme is about US\$ 23.04 Million (equivalent Rs.148 Cr.), with Rs.70 crore being the contribution of Government of India, Rs.31 crore contribution from GEF and UNDP and Rs.47 crore to be mobilized through sources such as State Govt. funds, CSR, beneficiary contribution, etc.

One of the goals of the project is reduction of the Green House Gas (GHG) emissions, which is to be achieved through the objective of enhancing use of reliable and affordable renewable/clean energy for rural productive uses/livelihoods in un-served and underserved areas of Assam, Madhya Pradesh and Odisha. This will be achieved by development and deployment of key Renewable Energy Technology Packages for Rural Livelihoods (RETPRLs) applications and the integrated removal of key barriers that prevent the wider adoption of renewable energy (RE) – rural livelihood technology and services packages in India. The project comprises of the following 4 major components and corresponding outcomes to be carried out in order to achieve the above mentioned objectives:

<b>Project Components</b>		<b>Outcomes</b>
Project Component 1	Development and deployment of key RE - rural livelihood application packages	1. Deployment of RE-rural livelihood application packages
Project Component 2	Supply chain for RE technology supply and service providers for enhancing rural livelihoods	2. Increased supply of RE technology and service providers for rural livelihood applications.
Project Component 3	Policy and regulatory support for RE - rural livelihoods applications	3.1 Inclusion of RE applications in national and state level rural livelihoods policies for key livelihood sectors in rural areas
		3.2 Future MNRE programs also cater to

		actions towards enhanced RE utilization in rural livelihoods
		3.3 Improved tariff and grid interconnection regulations for decentralized RE
Project Component 4	Financial support for decentralized RE - rural livelihoods applications	4.1. Improved decentralised RE subsidies and support for rural livelihoods
		4.2. Enhanced provision of financial support for decentralized RE in rural livelihoods applications
		4.3 Improved investment risk mitigation for decentralized RE in rural livelihoods applications

## II. **Scheme:**

Salient features of the Scheme on Scale-up of Access to Clean Energy to be implemented in the States of Assam, Madhya Pradesh and Odisha are given below:

### 1. **Objectives:**

- (i) To enhance access to reliable and affordable RE for rural livelihoods while encouraging replacement of fossil fuels.
- (ii) To create atmosphere for effective and innovative use of RE applications.
- (iii) To encourage innovation in addressing market needs and promoting sustainable business models.
- (iv) To ensure a suitable supply chain for RE technology packages is established
- (v) To support capacity building, awareness campaigns and human resource development.
- (vi) To ensure policy and regulatory support for enhanced RE penetration in rural livelihood applications
- (vii) To ensure enhanced financial support for RE for rural livelihood applications

2. Special thrust will be given on important rural livelihoods such as poultry, fishery, horticulture, dairy, biomass based local businesses, cottage and other village industries etc. Thrust will also be given on new renewable energy applications like solar dryers, solar cold storage, solar aerators, etc.

**Duration of the Scheme:** Scheme will be available for FYs 2018-19 and 2019-20

### **3. Project Component 1: Development and deployment of key RE - rural livelihood application packages**

#### **3.1 Scope of the Scheme:**

3.1.1 The scheme will be available for FYs 2018-19 and 2019-20, for promotion of RE based rural livelihood applications only. The scheme will be implemented in 3 target states; Assam, Madhya Pradesh and Odisha. Initially, a total of 19 districts have been identified in the 3 target states for implementation of the Scheme covering 1500 beneficiaries. Subsequent to this, the scheme would be applicable to all districts of the 3 target states covering additional 28500 beneficiaries. The 19 identified districts for the initial phase are:

<b>Sl. No.</b>	<b>State</b>	<b>District</b>
1	Assam	Barpeta
2		Nalbari
3		Kamrup Rural
4		Darrang
5		Udalguri
6		Goalpara
7	Madhya Pradesh	Hoshangabad
8		Betul
9		Ratlam
10		Raisen
11		Dhindori
12		Balaghat
13		Sehore
14	Odisha	Koraput
15		Keonjhar
16		Khurda
17		Kalahandi
18		Puri
19		Mayurbhanj

An indicative list of RE technologies for enhancement of rural livelihood applications is as given below:

S. No.	Livelihood Sectors	Renewable Energy Technologies
1	POULTRY	(A) Solar PV Lighting System and Ventilation for Backyard Poultry Farm
		(B) Biogas Plant based on Poultry Litter for captive use in Layer Farms and Hatcheries
		(C) Biomass Waste Briquetting from Poultry Farm
2	DAIRY	(A) Solar PV System for Milk Chilling at Milk Collection Centres
		(B) Biogas Plant based on Cattle Dung for captive use
3	HORTICULTURE	(A) Solar PV System for Small Cold Rooms
		(B) Solar Dryers for drying spices, vegetables and fruits
4	FISHERIES	(A) Solar Aerators
		(B) Solar Fish Dryers
5	COTTAGE INDUSTRIES: (Pottery, Smithy, Carpentry, Textile, handicraft, embroidery, leather, handmade paper, Production of building materials)	(A) Solar PV based power for lighting and powering equipment at Common Facility Centers for artisans
		(B) Biomass Gasifier based on Bamboo Waste
		(C) Solar PV based power for lighting and powering Charkhas at Common Facility Centers
		(D) Solar PV based lighting and powering for CFC for looms
6	Rural Industrial Clusters (RIC)	RET microgrid/stand-alone solution to manage multiple energy-enabled livelihood activities that could include food processing (vegetables, grains, fruits, etc.), oil processing, meat processing, herbal processing, refrigeration, stitching, mechanical workshop, rural BPOs, DTP & eGov services, irrigation, cold storage, etc.

3.1.2 Training programmes and workshops would be organized in the 3 target states of Assam, Madhya Pradesh and Odisha for different stakeholders including MNRE officials, RE technology providers, beneficiaries, representatives from state level agencies, local self-help groups, etc. These training programmes and workshops would target on project awareness, capacity building on RETPRLs' applications, specifications and costs, testing, etc.

### 3.2 Implementation Arrangements:

3.2.1 Scheme will be implemented through State Renewable Energy Development Agencies (SNAs) and State Rural Livelihood Missions (SRLMs) as the Implementing Agencies. A total of 3% of the eligible CFA will be provided as service charges to be shared amongst the Implementing Agencies. This service charge would be provided by MNRE in addition to CFA.

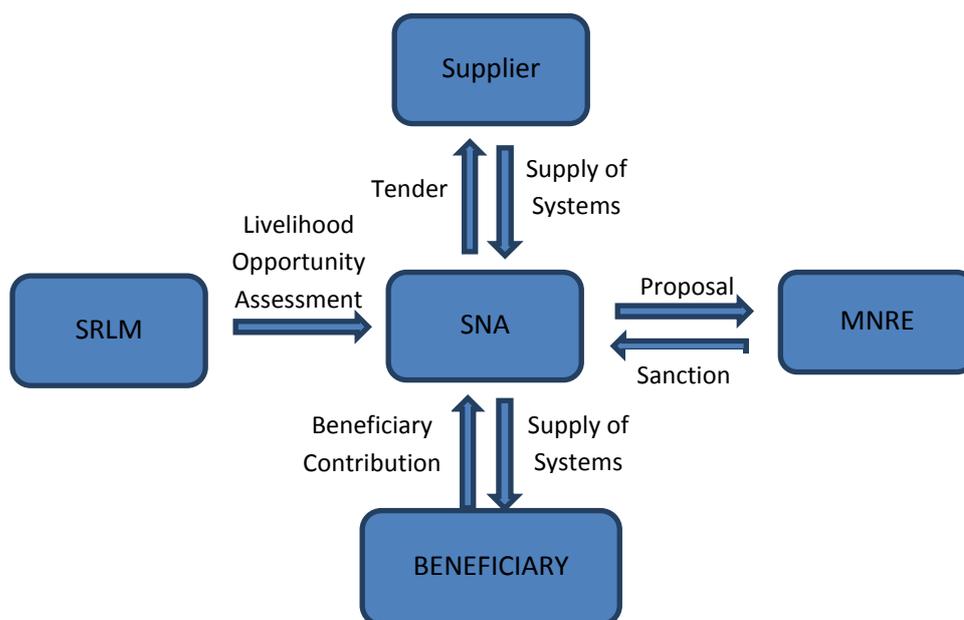
3.2.2 Livelihood activities and requirement of RE applications for each state will be assessed and verified by the SRLMs. SNAs will assess and evaluate the RE technology and implement the projects in coordination with SRLMs.

3.2.3 The scheme is technology neutral and SRLMs/SNAs may choose any RE technology for implementation. Procurement shall be done through the tender route. SNAs will submit the project proposals directly to MNRE for approval/sanction on Scale Up of Access to Clean Energy Scheme website that would be developed over time. SNAs will also submit project inspection and project completion reports for installed RETPRL projects to MNRE through the scheme website. Formats to be used for submission of a project proposal, project inspection and project completion reports for different RETPRL projects will be as issued by MNRE from time to time.

3.2.4 SNAs/SRLMs will make effort to involve local self-help groups in implementation of the Scheme.

3.2.5 The RE systems provider will establish a local service centre at block/district level and a telephone helpline number at state level for providing necessary operation & maintenance and after sales services.

An indicative Block Diagram showing the Operational Mechanism of the Scheme is given below:



### **3.3 Funding:**

3.3.1 The programme will be implemented through SNAs only by inviting tenders. The Ministry will provide subsidy to eligible beneficiaries @ 30% of the benchmark cost or tender cost, whichever is lower for the RE technology system. For new, complex and non-commercialized RE technology systems, technical specifications and benchmark costs will be developed separately and an additional financial assistance (over and above the CFA of 30%) will be worked out as per approval from MNRE.

3.3.2 15% of the total number of RETPRLs supported in each state will be reserved for beneficiaries from Scheduled Castes and 7.5% of the total number of RETPRLs supported in each state will be reserved for beneficiaries from Scheduled Tribes.

3.3.3 The CFA from MNRE would not preclude the implementing agencies from availing other fiscal and financial benefits being provided by State, Central Governments and any other agency as long as the same is clearly disclosed in the project report/proposal.

### **3.4 Release of Funds:**

3.4.1 MNRE may release up to 30% of the CFA as advance to SNA on placement of work order. The balance 70% would be released based on the progress of the project and submission of Utilization Certificate and other related documents. SNA will provide the beneficiary details and Aadhaar number for uploading on the DBT Portal.

### **3.5 Project Duration:**

3.5.1 Projects shall be completed in 12 months in General category States and within 15 months in NE States, from the date of sanction. Post this, penalty will be levied. However, maximum time allowed for completion of projects inclusive of penal period is 16 months in General category States and 19 months in NE States. Purchase Order shall be placed within six months from date of sanction, failing which the sanction will be cancelled without notice.

3.5.2 In case of failure to complete the project within stipulated period, penalty will be imposed on service charges to be given to implementation agency as given below:

- i) 30% reduction in applicable service charge for delay of two months in completion of project over and above the approved project duration.
- ii) Further reduction of 30% for delay of two more months.
- iii) No service charges for delay in completion of more than 4 months.

### **3.6 Monitoring, Feedback & Evaluation:**

3.6.1 Monitoring and Evaluation studies will be carried out during the period of implementation of the Scheme as given below:

- i) The primary level of monitoring at site will be done by SNAs and MNRE will do the overall monitoring.
- ii) For projects with applications above 10 kW, the system providers would also make available generation data to MNRE at intervals specified.

Online monitoring will be compulsory for all systems more than 10 kWp capacity for PV and equivalent capacity other systems, the exact benchmark would be specified by MNRE later. Real time monitoring may be specified by MNRE for large systems and online monitoring would be eventually extended to smaller systems as well.

Life of systems and products will be specified from time to time and efforts will be made to ensure that no systems or products are discarded before full life usage.

### **3.7 Technical Requirements:**

3.7.1 All the RETPRLs' systems should have the minimum technical requirements, quality standards and specifications for different rural livelihood applications as specified by MNRE from time to time. For individual beneficiaries, RETPRL systems (for all RE livelihood applications except Solar Pumps) with a maximum capacity of up to 3 kWp and Solar Pumps (for horticulture) with a maximum capacity of up to 1 HP will be sanctioned for installation. For community based beneficiaries, RETPRL systems (for all RE livelihood applications) with a maximum capacity of up to 50 kWp will be sanctioned for installation.

3.7.2 Only indigenously manufactured PV modules should be used in Solar PV systems and off-grid PV power plants. However, other imported components can be used, subject to adequate disclosure and compliance to specified quality norms and standards.

### **3.8 Benchmark Cost of RETPRLs:**

3.8.1 The benchmark cost would be fixed based on the following two main criteria:

a) Price determined through tenders done by SECI, State Nodal Agencies and other Government Departments/organizations in 12 months preceding the date when the committee starts working for determining the benchmark cost for next year.

b) Component wise cost breakup to arrive at an estimated price of each of the products for which benchmark cost is determined. The committee will collect data about all the tenders floated with MNRE subsidy. These would then be clubbed into different categories depending on the product, technology etc. Thereafter, the committee may develop criteria for arriving at a rate out the price or by calculating median. The benchmark so determined through tendered price will then be compared with values arrived at through costing by clubbing the price of various components. In case of wide difference, the committee may go into the reasons and if need be, apply correction factor.

### **3.9 Hybrid Systems:**

3.9.1 Based on demand and resource potential, hybrid RE systems may be considered for implementation on case to case basis. CFA in such cases will be limited to 30% of the benchmark cost of the individual components of the hybrid system.

#### **4. Project Component 2: Supply chain for RE technology supply and service providers for enhancing rural livelihoods**

##### **4.1 Scope of the Scheme:**

4.1.1 Initially, 20 RE technology supply and service providers will be supported to develop RE supply chain and provide the required equipment supply, services, etc. These RE technology supply and service providers could be equipment manufacturers, dealers, local entrepreneurs, etc. from the target states preferably from the identified 19 districts as specified in Project Component 1.

4.1.2 Subsequently, 80 additional RE supply and service providers will be selected (financial support will not be given but will be assisted in developing their business plans, technical training, etc.) to set up supply chain and provide the required equipment supply, services, etc. across different districts of the target states.

4.1.3 Training programmes and site tours would be organized to enhance the exposure of RE technology supply and service providers and enable them to develop RE technology packages that are in line with livelihoods' user requirements.

##### **4.2 Implementation Arrangements:**

4.2.1 The RE technology supply and service providers will be selected by inviting applications through an EOI. The EOI and criteria for selection will be as issued by MNRE.

4.2.2 The RE technology supply and service providers will also be provided with inputs in preparation of business plans, technical training, access to state level support schemes, etc.

##### **4.3 Funding:**

4.3.1 The financial support for the RE technology supply and service providers, training programmes and site tours will be provided from the UNDP/GEF share of the EAP project funds. Only the initial 20 RE technology supply and service providers will be provided the financial support. The additional 80 RE technology supply and service providers shall be provided with inputs as specified above under point 4.2.2.

#### **5. Project Component 3: Policy and regulatory support for RE - rural livelihoods applications**

##### **5.1 Scope of the Scheme:**

5.1.1 National rural livelihoods mission (NRLM) and State rural livelihoods mission (SRLM) statements and documents, National and State level rural livelihoods policies for different states and identified livelihood sectors will be assessed for provision of RE technologies. Recommendations on potential RE technologies and applications for convergence with existing policies of NRLM, SRLMs' existing policies, National and State level rural livelihoods policies of the target states will be developed.

5.1.2 The experiences and lessons from RETPRL based implemented projects as specified under Project Component 1 will be documented. A project website will be developed for sharing these project documents and other project related information. The documentation will also be developed in the form of printed case studies.

5.1.3 Existing MNRE and state level schemes will be assessed in terms of extent and effectiveness of support for RE for rural livelihood applications.

5.1.4 Assessment of existing tariff structures, regulations, arrangements and barriers for grid interconnection of small scale captive and off-grid RE applications will be conducted. Guidelines will be developed based on the assessment for tariff setting, technical and regulatory aspects for grid interconnection of captive and off-grid RE applications.

5.1.5 Meetings and workshops with concerned officials from NRLM, SRLMs and concerned Ministries/Departments of target states will be organized to promote experiences and recommendations on RE applications for rural livelihoods for existing policies. Project Staff/Implementing Agencies will be encouraged to participate in relevant national/international conferences and platform for promotion of experiences on RE applications for rural livelihoods.

## **5.2 Implementation Arrangements:**

5.2.1 Assessment studies, documentations and development of project website will be performed through EOI. The EOI will be as issued by MNRE.

## **5.3 Funding:**

5.3.1 The financial support for assessment studies, documentations, project website, workshops and meetings will be provided from the UNDP/GEF share of the project funds.

## **6. Project Component 4: Financial support for decentralized RE - rural livelihoods applications**

### **6.1 Scope of the Scheme:**

6.1.1 Existing RE subsidy schemes and other support models will be assessed in terms of effectiveness, reach and efficiency. Alternate RE subsidy and support models will be explored.

6.1.2 Mechanisms will be explored for pooling of financial resources available in form of subsidies, soft loans, etc. for RE technology providers and users for rural livelihood applications. Recommendations will be provided for easy access of available financial benefits for the RE technology providers and users.

6.1.3 Methods for providing investment risks and their mitigation, risk guarantee methods for renewable energy and rural livelihoods context will be assessed. New methods for risk guarantee will be developed for RE enterprises and end users in rural livelihood applications.

6.1.4 Meetings and workshops will be organized for promotion of the recommendations, explored RE subsidy and support models, recommendations on financial resources' pooling, methods for risk guarantee for RE enterprises and end users, etc.

## **6.2 Implementation Arrangements:**

6.2.1 Assessment studies, exploring new investment risk methods, mechanisms of financial resource pooling will be performed through EOI. The EOI will be as issued by MNRE.

## **6.3 Funding:**

6.3.1 The financial support for assessment studies, new methods on investment risk, financial resource pooling, workshops and meetings will be provided from the UNDP/GEF share of the project funds.

## **7. Management Arrangements**

7.1 Steering Committee and an Executive Committee formed under the UNDP-GEF-MNRE project will oversee the overall implementation of this Scheme. The constitution and Roles & Responsibilities of the Committees are as given below:

- 1) **Project Steering Committee (PSC):** Project Steering Committee is an over-sight and governance focussed high-level group which includes organizations that are core supporters and/ or significant co-financiers under the Scheme. Besides MNRE, UNDP and GEF (through MOEF), this committee also includes NRLM, IREDA, DEA, MSME as well as representatives of the state-level agencies that bring a significant contribution to the Scheme. The Secretary, MNRE will chair the SSC meetings. The Committee will meet at least once a year focussing on the Annual Project Report/Project Implementation Report (APR/PIR) for the last year, and the review and formal endorsement of the Annual Work Plan for the upcoming year of the Scheme operations.
- 2) **Project Executive Committee (PEC):** The Project Executive Committee comprises of all major stakeholders who are actively involved in project activities and who are interested in the project's results. The SEC will include representatives of MNRE, UNDP, NRLM and State representatives. The Joint Secretary, MNRE, will chair the SEC meetings. This group will meet at least four times a year. The SEC will review the Quarterly Progress Report (QPR) for the past quarter, and review what practical implementation steps needed to maximise the activity success in the upcoming quarter. The group is also expected to act as the forum for resolving major implementation level issues that may arise between different government departments or other key stakeholders.

## **8. Information, Publicity and Trainings**

8.1 Financial support used for seminar/symposia, capacity building, awareness generation, publicity, training and to banks as incentive and studies to be carried out etc. will be provided through UNDP/GEF share of the Project.

8.2 Workshops/Seminars would be organized through UNDP/GEF share of funds for experts to discuss best practices, debate over issues to overcome bottle necks and provide effective policy suggestions for ensuring wide spread RETPRL deployment at the national level.

## **9. Interpretation of the Guidelines**

9.1 In case of any ambiguity in interpretation of any of the provisions of these guidelines, the decision of the Ministry shall be final.