

REVISED GUIDELINES FOR IMPLEMENTATION OF DECENTRALISED GREEN ENERGY DEVELOPMENT IN MEGHALAYA

PROJECT NAME: Decentralized Green Energy Development Mission using “Hydro and Generator”, or Hydro Generator/Pico Turbine. The objective of the Decentralized Green Energy Project Mission is to promote Environment and Green Energy. Green Energy is generally defined as energy that is collected from resources which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat. Renewable energy often provides energy in four important areas: electricity generation, air and water heating/cooling, transportation, and rural (off-grid) energy services. Almost all income generating activities requires electricity, if these activities; be it micro, small or medium enterprise are harnessing Green Energy then it would be benefiting to them and to the environment. The other dimension would be to ensure that the ecosystem system services value adds livelihood opportunities.

PROJECT OBJECTIVES:

- i) To empower the community and create awareness about green-energy utilization and its benefits.
- ii) To generate energy that is sustainable, renewable and environment friendly that are pre-requisites to achieve targets laid out by the Millennium Developmental Goals (MDGs) and Climate Change related emissions scenarios.
- iii) To ensure drinking water availability closer to the household to reduce women and children drudgery.
- iv) To enhance quality of life by providing electricity to households, water lifting for drinking and irrigation facilities.
- v) Besides powering Cottage Based Industrial Units like welding shops, rice mills, food processing etc.
- vi) To set up stand-alone micro-hydro power generation systems in these villages, providing them with sufficient energy to enhance quality of life through sustainable livelihoods.
- vii) To ensure catchment area protection for assured base flow of streams and rivers.
- viii) Streams and Rivers Eco System development and assured water for drinking, irrigation and livestock farming besides power generation and aqua-tourism development.

CRITERIA AND PRIORITISED VILLAGES:

The hydro generator Mission primarily aimed at catering power supply to the remote, inaccessible hamlets or non-electrified cluster of households far away from the grid in the eleven districts of the state and which does not fall under any MeECL or central Government scheme of village electrification. The power generated from hydro generator/Pico Turbine are primarily aimed at Eco Tourism Village, locality street lighting, cottage based industrial units, water lifting etc.

PROJECT LOCATIONS : **11 Districts of the State**

NUMBER OF VILLAGES COVERED : **220Nos**

PROJECT PERIOD : **2 YEARS**

PROJECT IMPLEMENTING AGENCY: **Institute of Natural Resources, MBDA**

PROJECT ACTIVITIES:

1. Training and Capacity Building of Barefoot Engineers, Village Energy Committee on Operation & Maintenance
2. Construction of Weir, Forebay and Penstock
3. Installation of Hydroger, Power House and Transmission
4. Street/House Lighting; Cottage based industrial units connections

PROJECT IMPLEMENTATION ARRANGEMENTS:

STATE PROJECT MANAGEMENT UNIT:

At the SPMU level the Project will be headed by the Director of the Institute of Natural Resources, MBDA supported by 2 Technical Experts one for Khasi Hills and one for Garo Hills along with Technical Assistant and Field Assistants. **SPMU** coordinates the project on a day-to-day basis.

Roles & Responsibilities of PMU:

- To facilitate and extend logistical and personnel support towards the implementation of the project and for mentoring and suggesting corrective measures.
- To mobilize Training/ Capacity Building and exposure visit.
- To facilitate procurement of Technologies for harnessing Green Energy.

DISTRICT IMPLEMENTATION UNIT AND BLOCK IMPLEMENTATION UNIT:

The DC and the BDO are the respective heads supported by DPM's, Nodal Officers and Field Engineers.

Roles & Responsibilities of BDUs:

- Coordinating, monitoring and reporting.
- Facilitate VECs for signing of Social Agreement, Resolution of the VEC and convergence with other programs such as MGNREGS and Govt. Schemes under different Govt. line Departments.
- To ensure monitoring on progress of VECs, maintaining VEC profile and obtain Utilization certificates for the operating funds that has been released to them.

VILLAGE IMPLEMENTATION UNIT:

In the Village level, The Village Employment Council (alternatively referred to as Village Energy Committees – VECs) is to be formed who will take up responsibility for all efforts of the project. It will comprise of Village volunteers – 2 persons per village.

Roles & Responsibilities of Village Community:

- The village authority shall take charge and ownership of the project.
- The village authority should identify the site for the project implementation measuring as per the project proposal. The site for implementation should be as per the proposal.
- The land should be owned by the community or a group of individuals if community land is not available.
- Community contribution for the project should be facilitated which may be in the form of materials and labour contribution, to be properly documented.
- Facilitate Signing of Partnership Deeds/ Social Agreement. Implement the project activities as per the DPR/PCN
- The Project will be implemented on a Social Enterprise Mode. Any kind of profits earned from the project would be deposited in the Village Energy Committee. The Village Authority shall decide together with village community regarding maintenance and management of the project from the Social Capital, etc.
- The community shall constitute a Village Energy Committee comprising of 70% male and 30% female to carry out the following functions:
 - i. Motivation and creating interest amongst the community for successful implementation of the project.
 - ii. Maintaining of Corpus fund towards post project operation and maintenance.
 - iii. Collection of monthly fees from the Energy Consumer as per rates fixed by the VEC.
 - iv. Appointment of operators etc. for operating and maintenance of the project and fixing of operator's monthly honorarium.
 - v. 20% of the Net Benefit collected, shall be invested in the Social Development activities identified by the community.
 - vi. The Committee should open one Bank Account exclusively for the project.
 - vii. Promote Agri-Enterprises with energy available.

PROJECT SYNERGY:

Micro Hydel Power Projects have a very high potential synergy of convergence with Water Resources Multipurpose Reservoirs (MR) Projects, Meghalaya Non-Conventional & Rural Energy Development Agency (MNREDA), National Bank for Agriculture and Rural Development (NABARD), Soil and Water Conservation Department(S&WC) and State Council of Science Technology and Environment (SCSTE) and in all these sectors Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) will also play a vital role in Man Power and Infrastructure Development.

Components like Catchment area treatment can be taken up under MLAMP or Forest and Environment Department; releasing of fish fingerlings in existing reservoirs may be mobilized from Fishery Department. Wherever new reservoirs are to be created funding support of Water Resources, Soil and Water Conservation besides MGNREGS may be explored.

(a) ESTIMATES

1. The estimates will be as per the Community Rates prepared by the INR and are comply to fall within the amount as given in the DPR so that there will be no excess usage of Funds.
2. The load from the Pico-Turbine will be provided only at the Village Centre and the respective connections from the Village Centre to the Households or for street lights will be taken care by the Community.

PROCUREMENT OF HYDRO GENERATORS/PICO TURBINES:

Total number of 220 Hydro Generators/Pico Turbines will be installed at different feasible sites of the eleven Districts of the state of which 200 number will be outsourced from a competent authority and 20 numbers will be procured from the local entrepreneurs who will be facilitated to fabricate and manufacture Pico Turbines.

FUND FLOW MECHANISM:

Funds for Construction of Weir, Power House, Penstocks and laying of pipes as per sites Estimates will be released directly to the VECs respective bank accounts from SPMU. However, the VECs will not be able to withdraw the fund unless the field report submitted by the Field Engineers (both MLAMP and CLLMP) or Nodal Officers of both Non-MLAMP and Non-CLLMP of their respective Block have been forwarded to the SPMU for which work order will be issue and signed by SPMU, MINR copied to the Bank to enable the VEC's to withdraw the fund. The Funds will be made available to the Village Energy Committee through the Village Energy Development Funds based on the demand, progress of work and satisfactory utilization of the resources. SPMU will retain the fund earmarked under Training component to facilitate different training and capacity building programs.

Any accomplished assignments will be submitted along with the photographs, reports etc., as specified in the prescribed format. The Agency / Society will also train Master Trainer in building the capacity of community members and various stakeholders in Green Initiatives.

Any individual associated with the Agency / Society does not qualify to become an employee of MBDA and is not entitled to receive salary, benefits or other compensation. MBDA will be the owner of all the data collected / infrastructure created / machines installed by the Agency / Society, if the same has been collected / created / installed under the projects of MBDA.

