

Inception report, Energy MoU V IITB - PoCRA

8 June, 2023

Introduction

- Study, analysis, interventions, and tools developed in previous MoUs
- Included in the processes of the department, for scale-up

F. Structured demonstration of value of capacitors in 10 villages

G. Load Management app upgrade to include scheduling

H. Implementation of Energy estimation tool in 10 villages towards Information, Comprehension, and Collective action

Beed and Wardha

F - Structured demonstration of the value of capacitors in 10 villages

Structured demonstration in 10 villages, 5 Wardha 5 Beed.

Heavily loaded DT in each village for capacitor installation and demonstration

Village, taluka agri official, and krishi sahayak, local MSEDCL office, will be included in the demonstration process starting from before the rabi season to introduce the initiative, conduct of installation, and presentation of results at the end of the rabi season

Demonstration outcome reports may be shared across the department and with MSEDCL

Villages selected in Beed:

Identification of villages with high irrigation usage and likelihood of more electricity issues

Belgaon, Antarvali BK and Rui (Georai Block), Tigaon and Upli (Wadwani Block), Pimpalwadi and Gayakwadwadi (Patoda Block)

F, Schedule

May - July

Selection of 10 Distribution Transformers (DT) from 10 villages of 2 districts

August - October

Collection of data about each DT through farmers surveys, field surveys, network analysis, and preparation of report on status of DT

Prepare communication and awareness building material and protocol

Village meetings to share results and show awareness building material, include MSEDCL officials.
Get capacitors installed.

November - January

Conduct power factor measurements at DT during rabi. Survey farmers. Get feedback about any issues.

February - April

At the end of rabi, conduct surveys. Estimate number of pump breakdowns, tripping etc. Prepare material for presentation to village.

Present results in village meeting, with MSEDCL officials, TAO, krishi sahayak

G - Load Management app upgrade to include scheduling

Load management pilot projects were successfully implemented in MoU IV with schedules made by the IIT team.

App will be upgraded to include partially automated schedule creation so farmers can create schedules

Inputs for app to be developed in conjunction with 6 Distribution Transformer User Groups

Farmer will be encouraged to use the app in the rabi season and provide feedback

Villages selected in Beed

Belgaon, Antarvali BK and Rui (Georai Block), Tigaon and Upli (Wadwani Block), Pimpalwadi and Gayakwadwadi (Patoda Block)

Identification of villages with high irrigation usage and likelihood of more electricity issues. Farmers should be interested in load management.

G, Schedule and deliverables

May - July
Brief report on selection of DTs for load management app development
Select 6 DTs to get inputs for development of app
August - October
First version of design specifications and functionality of load management app
Design and develop the schedule automation, Development of app
November - January
Feedback from DT on the app usage and load management experience
Test and feedback in rabi from those DTs
February - April
Load management app with scheduling in the format of integration with PoCRA system

H - Implementation of Energy estimation tool in 10 villages towards Information, Comprehension, and Collective action

Energy estimation tool developed in MoU III, IV

In MoU V: Scale-up to find energy infrastructure requirement in any village

Estimated capacity, current capacity in villages, and other electricity data such as DT failure rate to be tabled in baithaks; MSEDCL officials to be included in baithaks. Current status and requirements to be shared with MSEDCL higher level offices also.

- Process of data collection for the tool by krishi sahayaks to enter into the energy estimation tool
- Training material, formats and protocols to be followed in the hangam baithaks to incorporate the energy status discussion, feedback, and action taken

Villages selected

Antarvali BK and Rui(Georai Block), Tigaon(Wadwani Block), Pimpalwadi, Gayakwadwadi and Pangra (Patoda Block)

Selected to be representative of the variations in the district considering cropping, common and non-command areas, irrigation equipment disbursements, soil types.

H, Schedule and Deliverables

May - July
Brief report on villages selected for energy ICC, Preliminary training material developed for ICC
Identify 10 villages from 2 talukas/ 2 districts
Develop training material for the krishi sahayaks to understand the Information, Comprehension, and Collective action with regard to energy infrastructure in the village
August - October
Output of energy estimation tool from 10 villages
Conduct training in 10 villages. Collect survey data from krishi sahayaks.
Validate internal integrity of data from krishi sahayaks in 10 villages and output of the MLP tool
Final set of training material developed for ICC
Support to PMU for integration of energy estimation tool into MLP app, and interface for feedback in rabi baithak
Incorporate improvements in Energy estimation tool model and in interface for data collection. Support to PMU to develop input interface in the MLP app.
Observe and get feedback at the rabi hangam baithak in 10 villages
November - January
Report on energy ICC discussion in rabi hangam baithak in 10 villages
Develop checks for quality of data collected in rabi hangam baithak
Summary on results of rabi baithak from 2 districts

Thank You