PRE-FEASIBILITY OF PROJECTS FOR MICRO HYDRO POWERP PLANTS (MHPP)

HYD01 ■ Tools/Methodology/Professions

DURATION

3 days

TARGET AUDIENCE

Ministries in charge of energy

Rural electrification agencies

National utilities

Engineering firms

Engineering school and training institutes

Electric systems operators

A FEW REFERENCES

NEA (Philippines)

USED TOOLS

RETScreen

OBJECTIVES

The course on preliminary studies for MHPP aims at providing engineers/ technicians with a basic understanding of MHPP projects with a power output between 20 kW and 5 MW and how to prepare consistent pre-feasibility studies.

TRAINING PROGRAMME

1. General introduction

- Inventory of hydroelectric resources and load forecasting at national and regional levels
- National regulations and procedures regarding the development of hydroelectricity
- General methodology – Organisation chart and preliminary survey – Roles of the various partners in a project
- Reminder of principal definitions,
- Preliminary study.

2. MHPP pre-feasibility study

- Collection of climate, rainfall and hydrometric data—Assessment of the local geological environment,
- Cartography study based on 1 / 200 000 and 1 / 50 000 maps and site design options; hydrology study, taking topography and geologic restrictions into account,
- Organisation of field missions and site visits
- Integrating of site missions and site visits—Detailed study datasheets
- Plant capacity and generation for various design options
- Production site characterisation

3. Applying RETScreen software to a MHPP preliminary study

- What is RETScreen ?
- Case study 1 : Technical data entry and analysis
- Case study 2 : Economic study

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