

# RURAL ELECTRIFICATION PLANNING



## TRAINING OBJECTIVES

This course answers all questions relating to rural electrification planning studies and access to electricity services in particular, regardless of the geographical scope of the study: Which villages and towns should be electrified as a priority to maximise impact on the populations? What are the current and future electricity requirements? What are the most suitable options for power supply? Where can we encourage the use of renewable energy sources? What solutions should we offer the most remote villages? The course is based on learning how to use the GEOSIM© software program. GEOSIM© is a rural electrification planning tool. It is an interactive program based on a Geographic Information System (GIS) and is used to create planning scenarios for rural electrification. GEOSIM© can be linked up to a Web-based interactive visualisation platform.



### DURATION

10 days

### SOFTWARES USED

GEOSIM©  
www.geosim.fr

### PRE REQUISITE

GIS training

### PUBLICS

Ministries in charge of Energy  
Rural Electrification Agencies  
National electricity companies  
Engineering firms  
Engineering schools  
Independent consultants

### TRAINERS

The training programmes offered by IED draw on the actual experiences of the instructors. They combine theory and practice.

### CONTACT AND INFORMATION

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## TRAINING CONTENT

### 1/ Rural electrification planning

- The different planning phases
- Auditing the current situation (use of GIS)
- Establishing guidelines

### 2/ Introduction to GEOSIM

- Presentation of the tool: functionalities
- "GIS data" / "GEOSIM©" interaction + settings
- Presentation of the various modules: Spatial Analyst®, Demand Analyst®, Network Options®, Distributed Energy®

### 3/ Spatial analysis of a given geographical area (Spatial Analyst© module)

- Presentation of the module and demonstration
- Practical session: performing a spatial analysis of a given area
- Using the results / sensitivities

### 4/ Electricity demand forecasting (Demand Analyst© module)

- Presentation of the module and demonstration
- Practical session: performing an analysis of demand within a given area
- Using the results / sensitivities

### 5/ Identification of supply options (Network Options© module)

- Presentation of the module
- Identifying the target groups, establishing supply options
- Demonstration
- Practical session: simulation of MV extensions, identification of decentralised projects
- Using the results / sensitivities

### 6/ Establishment of pre-electrification options for remote villages (Distributed Energy© module)

- Presentation of the module and demonstration
- Practical session

### 7/ Consolidation

- Creating maps illustrating the main projects
- Economic and social assessment (growth trends in rate of access, number of social structures benefiting, etc.)
- Overview of investments
- Time planning (scheduling of projects)

