

NEPLAN Training

The concept of *NEPLAN Training*

NEPLAN training courses offer an excellent opportunity to become familiar with NEPLAN, the power system software applied worldwide for network planning and operation. The participant gets to know the most important features of the program and he/she will be able to use it immediately in the daily business.

The courses include many practical exercises and case studies, which help the participant to engage their new knowledge in real-life problems. Individual attention is guaranteed during the course, due to the limited size of our training classes (max. 6 participants).

Training location

NEPLAN training courses take place about 100m away from the train station of Küsnacht ZH near Zurich, Switzerland:
NEPLAN AG Oberwachtstr. 2 CH – 8700 Küsnacht
Switzerland

The train trip from Zurich main station to Küsnacht ZH (line S16 or S6) takes 15min.

General Information

You will receive a detailed agenda and a map of Küsnacht ZH about one week before the training starts. Training documents and lunch are included in the training fee. For accommodation and more information please contact us by phone (+41 44 914 36 66) or by e-mail: bcp@neplan.ch

Enrolment/ Mode of payment

Please use the online enrolment form on our web-page. In case you are interested in a training course that takes place on a date inconvenient for you, please announce it with given enrolment form. The training course fee has to be paid in advance (invoice). In case of cancellation by the participant until one week before the course, a fee of 20% will be charged. In case of a cancellation within less than one week before the training course, the whole course fee is owed.

Cancellation of the training course

NEPLAN AG reserves the right to cancel training courses until one week before the event, in case of an insufficient number of participants.

NEPLAN Introduction / Graphical User Interface

Goal of the training course

In this basic course you will get to know NEPLAN as a planning and operating tool for electrical networks, while the priority is set to the graphical user interface.

After this course you will be able to enter electrical networks in NEPLAN, and you will know, what you have to care about during the data input.

You will be able to represent the network according to your needs and you will know how to work with diagrams, graphic layers and variants.

Course content

- Input of a network
- Different ways of network representation (schematic/geographic)
- Data Input for network elements
- Coloring of the network according to different criteria
- Text and result boxes
- Working with a map in the background (import, calibration)
- Element libraries
- Symbol libraries
- Definition of areas and zones
- Scaling factors
- Schemas and graphic layers
- Use of variants
- Export/import of data tables and graphics to MS Excel and Word
- Printing schemas and data-tables
- Context sensitive help

To whom is this course addressed?

NEPLAN-Beginner: You are not familiar with NEPLAN yet, but you would like to learn the benefits of the software and its most important features for the calculation and planning of electrical networks.

NEPLAN-User: You already know NEPLAN, but you used it rarely until now. You would like to get more familiar with the program and get to know all the useful graphic functionalities.

NEPLAN Load Flow and Short Circuit

Goal of the training course

After this course you will be able to use efficiently the NEPLAN Modules Load-Flow and Short-Circuit. A short view of the theory will make it possible for you to adjust the calculation parameters optimally. As well it will be easy for you to represent the results after your needs.

Course content

➤ **Load Flow calculation**

- Short view of the theory of load flow calculation (calculation methods, iteration process)
- Calculation parameters
- Setting of reference values
- Result representation in single line diagram and tables
- On-load tap-changer of transformers
- Distributed Slack
- Calculation of sensitivities of active power losses
- Area/Zone-regulation with transaction-definition
- Load balancing
- Contingency Analysis

➤ **Short Circuit calculation**

- Short view of the theory of short circuit calculation (calculation methods)
- Calculation parameters
- Calculation of 1 phase, 2 phase, 3phase and special faults
- Result representation in single line diagram and tables

To whom is this course addressed?

NEPLAN-User and NEPLAN-Beginners. As a requirement, the participant needs to know well the graphical user interface. Therefore the training course „NEPLAN Introduction / Graphical User Interface“ is a good basis.

Steady State Modeling of Renewable Energy

Goal of the training course

The goal is to acquaint the trainees briefly with NEPLAN in general with a strong focus on modelling renewable energy generation and storage systems in steady state. At the end of the training, participants will

- Refresh their knowledge of NEPLAN
- Know how to use the load flow and load flow with profiles modules
- Be able to utilize the NEPLAN elements disperse generation and energy storage devices

Course content

- Introduction
- Input of user defined networks
- Edit technical data of NEPLAN elements
- Introduction load flow
- Introduction load flow with load profiles
- Handling of disperse generation, voltage regulators and energy storage devices
- Handling of regulator types of disperse generation NEPLAN element
- Presentation of results in diagrams and tables

To whom is this course addressed?

NEPLAN-User and NEPLAN-Beginners. This is an introductory training course, prior knowledge of NEPLAN is welcome but not mandatory.

Dynamic Modeling of Renewable Energy

Goal of the training course

After this course you will be able to use efficiently the NEPLAN Simulator for dynamic simulations. The course will give you the fundamental knowledge about dynamic modeling and simulation, focusing in particular on controls and system setup of renewable energies as wind turbines and PV plants. Final goal of the training is to learn how to enter the correct dynamic data for elements, define the simulation parameters, setup events on the system such as short circuit or line tripping, plot simulation results.

Course content

- Introduction
- Theory on dynamics (RMS/EMT)
- Input of elements and controls (user defined and predefined)
- Modeling of wind and PV power plants
- Simulation parameters
- Events and disturbances
- Plots
- Run simulation
- Analysis of the results
- Application cases and benchmark networks

To whom is this course addressed?

NEPLAN-User and NEPLAN-Beginners. This is an introductory training course, prior knowledge of NEPLAN is welcome but not mandatory.

Gas/Water

Goal of the training course

In this introductory course NEPLAN will be presented to you as a planning system for gas and water networks. In this introductory course NEPLAN will be presented to you as a planning system for gas and water networks. After this course you will be able to model and display networks in NEPLAN. You will know the relevant calculation and be able to generate and interpret the calculation results.

Course content

- Graphical Interface
 - Entry of a network
 - Various display modes (schematic/geographic)
 - Data entry for the network elements
 - Coloring of the network according to various criteria
 - Labelling
 - Working with cadastral plans
 - Element libraries
 - Working with multiple schematic diagrams and graphic layers
 - Export/Import of data tables and graphics to MS Excel und Word
 - Printing graphics and data tables
 - Context-sensitive Help

- Calculation
 - Pipe network calculation for water networks, calculation parameters
 - Pipe network calculation for gas networks, calculation parameters
 - Presentation of the results in the schematic diagram, in tables and graphs
 - Temporal flux distribution
 - Interactive flux distribution
 - Feeding distribution

To whom is this course addressed?

NEPLAN-Beginner: You do not yet know NEPLAN and you would like to use the program for the calculation and planning of gas and/or water networks.

NEPLAN-User: You already know NEPLAN, but you apply it rarely. You want to become more familiar with the program and know all the functions and calculation options.