Grid Connection of Renewable Generation

September 07th - September 08th 2020

Online training course

This training introduces the participants to the tools and systematic approach used for the grid connection of wind and solar power generation. It is based on the use of PowerFactory, an engineering environment for the systematic analysis and design of electrical power systems. The course is intended for professionals working for manufacturers, grids, utilities, project developers, or consultants. The course is based on the German DILEMMA models and supports the grid code requirements. It includes hands-on exercises to perform dynamic short-circuit studies and system integration studies for the grid code requirements.

DAY 1

09:00  Welcome to the training course

09:30  Coffee break

10:00 Exercise: Setting up a 50MW Wind Farm

11:00 Exercise: Building a Wind Farm Model

11:30 Exercise: Grid Code Compliance in Steady-state Study

12:00 Lunch break

13:00 Lecture: Introduction of the Dynamic IEC DFIG Model

14:00 Exercise: IEC DFIG Type 3 Model

15:00 Coffee break

15:30 Lecture: Dynamic Simulation Fundamentals

16:00 Exercise: Short-Circuit in a Wind Farm

16:30 Lunch break

17:00 End of the day

DAY 2

09:00  Welcome to the training course

09:30  Coffee break

10:00 Exercise: Reactive Power Capability

11:00 Exercise: Grid Code Compliance in Steady-state Study

11:30 Lunch break

12:00 Lecture: Dynamic Voltage Support

13:00 Exercise: Dynamic Simulation of a Wind Turbine

13:30 Introduction of the Dynamic IEC DFIG Model

14:00 Exercise: WT with Fully Rated Converter

14:30 Coffee break

15:00 Exercise: Dynamic Simulation of the Dynamic IEC DFIG Model

15:30 Lecture: Dynamic Models for PV Systems

16:00 Exercise: IEC DFIG Type 3 Model

16:30 Lunch break

17:00 End of the course

WHO SHOULD ATTEND:

• Engineers working for manufacturers
• Power system operators
• Utility engineers
• Power system consultants
• Electrical engineers in general

PARTICIPANTS SHOULD BE FAMILIAR WITH:

• The power system concepts

TRAINING STYLE:

A designer of PowerFactory (Germany) will lead the training course. The course is focused on the use of PowerFactory for grid code compliant grid connection of wind and solar power generation. It includes hands-on exercises to perform dynamic short-circuit studies and system integration studies for the grid code requirements.

WORLDWIDE TRAINING CENTER:

Central European Time (UTC +01:00)

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Training schedule

Central European Time (UTC +01:00)