

PSLF Training

PSLF Fundamentals and Mechanics of Steady-State Analysis

(4 Day Class – 28 Training Hours)

Training objectives:

Students will create a small power system case from scratch and will run a mini-study on this sample study system using the GE PSLF Program while learning the basics of the program.

The course is intended for:

This class is intended for engineers.

Main features:

Setting Up PSLF

- Overview of the PSLF Program
- Definition of PSLF Directories
- PSLF Initialization
- PSLF Parameters
- Using the PSLF Manuals

Getting Started with PSLF

- Review of the Per Unit System
- Bus Definitions
- Transmission Line Modeling
- Two-Winding Transformer Modeling
- Machine Modeling
- Load Modeling
- Fixed & Controllable Shunt Modeling
- Area, Zone & Owner Definitions
- Loading and Saving PSLF Cases

Interpreting the Power Flow Solution

- Load Flow Study Types
- Establishing Steady-State Criteria
- Equipment Modeling Importance
- Case, Scenario and Contingency Development
- What is a Load Flow Solution?
- Different Methods of Solution
- Cover Various Solution Options
- When Do I Order a Load Flow?
- Data Checking
- Importing New Data
- Tracking Solution Problems

Managing the Database

- Using Case Titles and Comments
- Using PSLF Edit Table Features and Functions
- Manipulation of the database records
- Using the local one-line graphics tool (SCAN)

For more information visit: www.geenergyconsulting.com



PSLF Training

Wind Farm & Equipment Modeling

- Modeling Reactive Capability Curves
Realistic Voltage Regulation and Power Plant Constraints
- PSLF documentation on Modeling Wind Farms
- Modeling LTC/TCUL Transformers

One Line Graphics

- Using the Drawing Database
- Exploring the OLG database capabilities
- Developing a One-Line Diagram
- GEDI vs. SWITCH

Solution Validation & Reporting

- Review of PSLF Table Results
- Review of PSLF Output Reports
 - Thermal/Voltage
- Use of Case Comparison
- How to Scale Load and Generation

- Import / Export Formats
- Transmission Line “Jumpers”
- Estimated v.s. Actual Solution Mismatch

Program Automation with EPCL

- Configuration of TextPad5
- EPCL Language Syntax
- Development of EPCL Programs
- Database Table Customization

Contingency Analysis using SSTools

- Overview of the PSLF SSTOOLS Program
- How the Processor Works
- Developing N-1 Contingency List
- Methods of Contingency Solutions
- Running the Contingency Processor

Interpreting Contingency Results

Recommended prior knowledge:

Background in power systems analysis, Bachelor’s degree in electrical engineering or equivalent experience, Knowledge of a text editor such as Textpad, Familiarity with Microsoft®; Windows®.

Note: The course is held in English. Class subject to change. Class times are 8-5.

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