

# PSLF Training

## PSLF Fundamentals and Mechanics of Steady-State Analysis

(5Day Class – 25 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
- Introduction to the user interface
- Directory setup
- PSLF Initialization
- Location and availability of manuals
- Loading and saving a power flow case

#### Managing the Database

- Using Case Titles and Comments
- Using PSLF data grid features and functions
- Editing Records via Table and editors
- Using Autoscan

#### Getting Started with PSLF

- Review of the per unit system
- Modeling a bus
- Modeling a load including ZIP load modeling
- Modeling a generator, including regulation factors
- Modeling a transmission line
- Modeling a transformer
- Build and solve a case

#### Advanced Equipment Modeling

- Jumper connections
- Voltage control devices
  - LTC
  - Fixed and switched shunt
  - SVD
- Power plant reactive capability
- Node breaker model

For more information visit: [www.geenergyconsulting.com](http://www.geenergyconsulting.com)



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## One Line Graphics

- Develop a drawing
- Other available features

## Interpreting the Power Flow Solution

- Importance of power flow analysis
- Time frame of interest
- Import/export cases
- Identification /correction of convergence issues
- Base case data correction

## Reports and Utilities

- Tabulated results
- How to generate reports
- Case differences
- Incremental difference tool
- Scaling load/generation
- Network equivalence

## Program Automation with EPCL

- Editors to use -- external or inbuilt
- EPCL -- a brief introduction
- Development of an EPCL Program
- Accessing and changing case data
- A basic introduction to Python integration

## Contingency Analysis using SSTools/ProvisoHD

- Outage creation
- Control file
- Cases file
- Using ProvisoHD

## 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 9 am - 2 pm, Pacific time.**

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