

The background of the top section is a photograph of a man in a white shirt and tie pointing at a whiteboard, with a woman standing behind him looking at the board. The Siemens logo is in the top left corner.

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PSSC 630

PSS®E Reliability Standards and Grid Codes Compliance Study

Siemens Power Academy TD - NA • usa.siemens.com/pti-education

At a glance

In the **PSS®E Reliability Standards and Grid Codes Compliance Studies** course, learn to use the new features of PSS®E to conduct simulation studies to ensure that your transmission system and interconnected facilities meet the applicable reliability standards or grid codes.

The variety of hands-on PSS®E exercises in **PSSC 630** will allow participants to:

- Review the newest features available in PSS®E
- Use the Single or Multi-level AC Contingency Analysis engines to detect events that can potentially lead to overload cascading or significant loss of load; conduct N-1-1 Analysis to assess system performance under scheduled outage conditions; and perform Preventive Security Constrained Optimal Power Flow (PSCOPF) to prepare the system for the next N-1 condition (NERC FAC, EOP, and PRC standards)
- Calculate the power factors of interconnecting generating facilities
- Learn how the new Results Analysis and Visualization (RAV) module can help you organize and drill deeper

into steady state contingency analyses results in a graphical format

- Use PV and QV analysis functions as reactive power and voltage control study tools (FERC Order 661A and NERC VAR standards)
- Explore methods to address voltage and reactive power issues, including sensitivity factors and corrective actions, and conduct reactive power planning with models of reactive compensation devices and the Optimal Power Flow (OPF) solution tool (NERC TPL, VAR, and EOP standards)
- Understand the event sequence that leads to system voltage collapse and learn how to use dynamic simulation tools to monitor transient voltage dips and report violations (NERC EOP standards)
- Use the Geomagnetic Induced Currents (GIC) module to calculate induced voltages and currents during geomagnetic storms and assess the potential impact on power system performance (NERC TPL standards)
- Examine low voltage ride through (LVRT) capabilities of wind farms during system disturbances (FERC Order 661 and NERC PRC standards)
- Learn about new dynamic simulation models for air conditioner loads and

reactive power compensation devices for studying system voltage performance (NERC MOD standards).

Upon completion of this course, participants will have the ability to use a variety of new features in PSS®E to validate their power systems against reliability and grid code standards.

Prerequisites

Participants must be employees of a company that is a current lessee of PSS®E. Knowledge of the basic functions of PSS®E power flow is required.

Course structure

This is a three-day course. Material is presented in both morning and afternoon sessions for a total of six hours of daily instruction. Standard course hours are 9:00 a.m. to 4:00 p.m. each day.

To view the PSSC 630 Course Schedule on the web:

https://siemens.coursewebs.com/cart/pageCourseInfo.aspx?Course_ID=PSSC_630

Instructors

All courses offered through Siemens Power Academy are developed and taught by leading industry engineers. In addition to their proven instructional ability, our engineers have advanced degrees complemented by first-hand knowledge and experience solving power system problems throughout the world.

Continuing Education Units (CEUs), Professional Development Hours (PDHs):

Licensed engineers, on a voluntary or mandated basis, attend continuing professional education for licensure renewal to ensure competency. All courses offered through Siemens

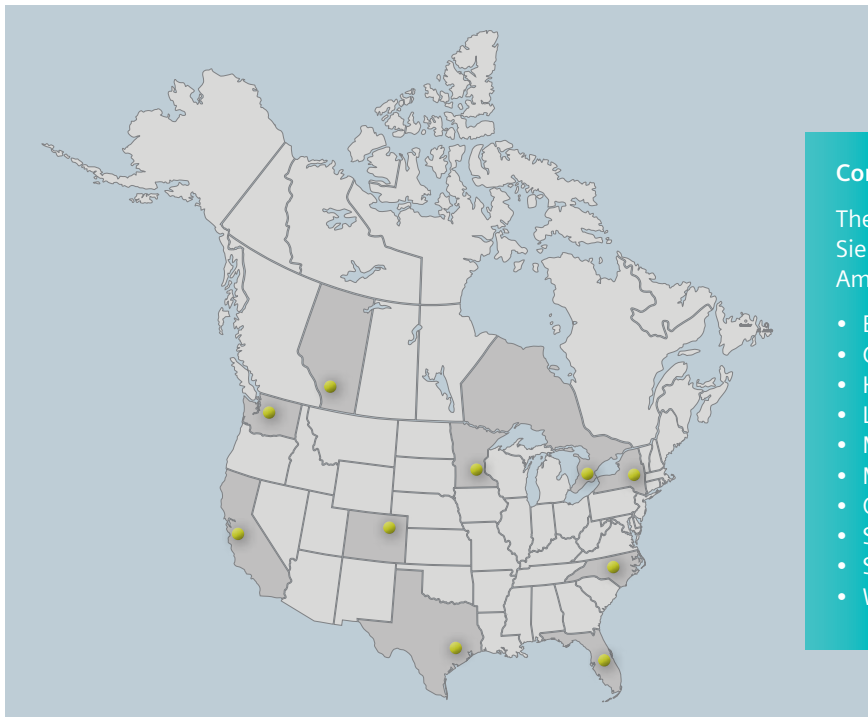
Power Academy meet the requirements for CEUs and PDHs.

- Continuing Education Units (CEUs) are the nationally recognized units for recording participation in professional development and noncredit educational programs. Participants completing this course will be awarded CEUs based on the instructional hours of the course: one CEU is awarded for 10 classroom hours of instruction.
- Professional Development Hours (PDHs) – Continuing education training for the Professional Engineer (PE) – that needs to earn annual Professional Development Hours

(PDHs). Through our instructor-led training, participants earn one PDH for each one hour of instruction. The participant is responsible for maintaining records of courses taken in support of licensure.

Client site and custom training

All courses are available for presentation at any client's location by special arrangement. At client sites, it is recommended that sufficient computer terminals be available to enable a fully interactive and productive class, if applicable. Client site courses can also be tailored to address specific topics of local importance.



Convenient training locations

The course is scheduled on a regular basis at Siemens offices located throughout North America, including:

- Burlington, Ontario, Canada
- Calgary, Alberta, Canada
- Houston, Texas, USA
- Littleton, Colorado, USA
- Minnetonka, Minnesota, USA
- Mountain View, California, USA
- Orlando, Florida, USA
- Schenectady, New York, USA
- Seattle, Washington, USA
- Wendell, North Carolina, USA

Contact us

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