

# SCS Synchronous Controller

## Level 3 Field Service Engineer Training

### DTB TRAINING CENTER GREENSBURG, PA– COURSE DESCRIPTION

Hitachi Energy pleased to offer the following 2-day training course consisting of classroom and hands-on instruction at Hitachi Energy's Greensburg, PA Training Center. The course is aimed to provide a general understanding of operations and maintenance of Hitachi's Switching Control Sentinel (SCS) for HV circuit breakers. The course will cover a variety of voltage classes, depending on the equipment types the course attendees encounter in the field. During the classroom portion, experienced instructors will share their knowledge and expertise through interactive, engaging classroom instruction. To add further understanding, each main category of instruction will be followed by hands-on activity where students can interact with the units first-hand.

PREPARED BY Art Schultz	STATUS Approved	SECURITY LEVEL Internal		
APPROVED BY Marcio Schmitt	APPROVAL DATE 2023-02-13			
OWNER US Head of Training Function	DOCUMENT KIND Agenda			
TITLE SCS				
OWNING ORGANIZATION US-Mount Pleasant-2657-Field Service Hitachi Energy	DOCUMENT ID	REV. A	LANG. en	PAGE 1/3

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**Course goal:**

The course is an in-depth training and teaches profound knowledge on the operation, commissioning and troubleshooting procedures of the SCS (Switching Control Sentinel).

**Who would benefit:**

- ❖ Hitachi Energy Technicians/ Engineers
- ❖ Hitachi Energy Channel Partners

**Included:**

- ❖ SCS information manuals
- ❖ 1 - 2 continental breakfasts
- ❖ 1 - 2 lunches
- ❖ 1 group dinner
- ❖ certificate of completion

**Main learning objectives:**

- ❖ Understand the functions of all SCU components
- ❖ Perform retrofit Procedures of SCU
- ❖ Perform a complete commissioning test using the SCS CB insight software.
- ❖ Make necessary setpoint adjustments for POW switching for optimal performance of DTB or LTB

**Certification:**

A confirmation will be issued after successful participation in this course, as part of the certification process.

Within a 12 months period, an on-site assessment must be carried out along with a final review to complete certification.

**Prerequisites:**

- ❖ L2 training or experience on DTB/LTB
- ❖ Ability to read and speak English
- ❖ Understand wiring diagrams and drawings of control circuits
- ❖ On-site experience on DTB Installation and/or Commissioning procedures.
- ❖ Attended the local required Health & Safety Training
- ❖ First aid course with certificate
- ❖ Own PPE
- ❖ Enhanced computer skills with admin rights.

**Duration:**

2 days

**Enrolments:**

Send your request to

[us-dtb\\_training@hitachienergy.com](mailto:us-dtb_training@hitachienergy.com)

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Approved	Internal	2GHE009007	A	en	2/3

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Day	Subject	Location
1	<b>Introduction to SCS</b>	Classroom
	❖ Capacitor bank energization	
	❖ Equipment Stress	
	❖ Transient control with synchronous closing	
	❖ Point-on-wave control	
	❖ Transient control with synchronous closing	
	❖ Advancement in technology	
	❖ Synchronous Closing design goals	
	❖ Interrupter issues	
	❖ Control Algorithm- compensation	
	❖ Control Algorithm- adaptation	
	❖ Control Hardware Requirements	
	❖ Timing Considerations	
2	<b>Introduction to the SCS Devices</b>	Classroom and Practical
	❖ Sensors	
	❖ Hardware	
	❖ Monitoring concepts	
	❖ CB insight	
	❖ Setup and configuration	
	❖ Factory test	
	❖ Responding to alarms	
	❖ SCS Communication concepts	

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