

HSI Electric Grid Simulator

Using our years of simulation training experience, HSI has developed a proprietary simulator built from the ground up. To ensure operator and system reliability, our new platform focuses on enhancing learner engagement for improved performance, knowledge retention, and operator experience.

You can choose instructor-led or online simulation courses to meet your tasks, goals, or real-world situations with our proven training methods built into each scenario. While system operators may spend their entire careers without ever seeing a voltage collapse or a blackout, the Electric Grid Simulator can help them recognize and act

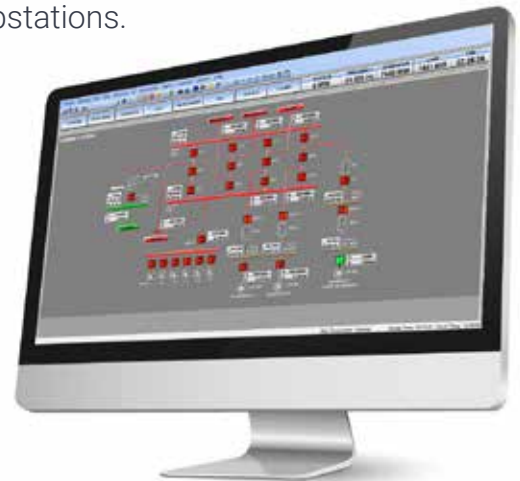
during a looming emergency and recover quickly from a failure.

In addition to the HSI Power System Operations courses prebuilt with simulation, scenarios can be customized for instructor-led courses to help your team reach specific goals.

The Electric Grid Simulator replicates a large scale interconnected electric power system comprised of East and West Transmission Operator areas with 31 substations.

Simulator features include:

- Enhanced interface
- Advanced trending capabilities and alarm features
- Straightforward navigation
- Variety of generation types, including renewables
- Interconnection ties
- Improved student engagement platform



Comprehensive simulator features:

- One Balancing Area connected to two additional Balancing Areas
- Topology of approximately 500 x 300 miles
- Generation capacity of 15,000 MW with common transmission voltages of 500 kV, 345 kV, 230 kV, 138 kV, 115 kV, and 69 kV
- Overhead and underground transmission
- Substations with a variety of breaker schemes
- Generation variety including steam (nuclear and fossil), combined cycle and gas turbines, hydro, wind, and solar
- Hydro blackstart and emergency generators
- Shunt and series capacitors and reactors, load tap changing transformers, and a static VAR compensator
- Substations feature a variety of breaker schemes
- Alarm and trending capabilities

The Electric Grid Simulator is designed to be much more than an integral part of every student's simulation training – it's designed to prepare your operators for situational awareness through the fundamental concepts of operating a transmission system.

ONLINE SIMULATION COURSES

	CEH	STD	SIM	EO
Balancing, Interchange, AGC	2.5	–	1.5	–
Contingency Analysis	3.0	–	1.5	–
Generators and Frequency	2.5	–	1.5	–
Power Flow and Distribution Factors	3.0	–	2.0	–
Power System Operation Orientation	1.0	–	1.0	–
Restoration	3.5	–	2.0	–
System Operating Limits	2.5	–	2.0	–
Switching	3.0	–	1.5	–
Voltage and Transmission	3.0	–	2.0	–
Total Hours	24.0	–	15.0	–

[hsi.com/industrial-skills](https://www.hsi.com/industrial-skills)

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* Instructor-led simulation courses available. Contact us for details.