

PJM Certification Prep



This online training series is designed for real-time system operating personnel who are required or desire to prepare for taking the PJM Certification Exam. The training course content includes:

- an administrative overview to the PJM Certification program
- an overview to control area concepts
- a review of the PJM manuals that address Pre-Scheduling Operations, Control Center Requirements, Scheduling Operations, Dispatching Operations, Emergency Operations, Restoration, Generator Interconnections and Operations, and Transmission Operations

The series of modules is culminated with a multiple choice test reflective of the criteria defined in the PJM Certification exams content outlines for either Transmission or Generation.

Upon completion of this course, attendees now receive a free subscription to the appropriate PJM TEST TRAK" program - Transmission or Generation. Completion of PJM TEST TRAK" will reinforce material covered in the course and better prepare individuals for the testing experience!

This course is intended for real-time system operators and support personnel who operate on the PJM RTO systems, are in direct communication with any PJM System Operator, or perform daily operations-related functions at the direction of the PJM System Operator during normal, emergency and/or system restoration situations.

The PJM Certification Prep Program includes the following modules which were updated to align with the current certification exams:

Mod 1 - PJM Certification Overview

The module provides an overview of the PJM Certification Program. The module reviews elements of the PJM Manual 40 - Training and Certification Requirements. The module identifies who is required to be certified, how the certification examinations were developed, and program information. Students are then provided with an overview to the application process. A review of the examination content outlines is explored and the breakdown of examination content based on the outlines. The module concludes with reference material to be utilized in preparing for taking the exam.

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Mod 2 - PJM Certification: Balancing Area Overview

The module provides an overview to balancing area operations and its relationship to the interconnection. The overview includes the concepts associated with area control error and tools available to utilize as control mechanisms. The module concludes with identification of control performance standards and actions available to assist in meeting the standards.

(NERC Total CEHs: 1.0 CEHs – Standards: 0.0 CEHs; Ops Topics: 1.0 CEHs; Sim: 0.0 CEHs)

Mod 3 - PJM Certification: Pre-Scheduling Operations - PJM Manual 10

The module reviews elements of the PJM Manual 10 - Pre-Scheduling Operations. The manual review focuses on the PJM OI and PJM Member pre-scheduling activities. The review includes roles and responsibilities of the PJM System Operators and PJM Members with regards to: Pre-Scheduling, Outage Reporting, Reserves and Reserve Objectives, Regulation Requirements, and Maintaining Market Information. (NERC Total CEHs: 1.5 CEHs – Standards: 0.0 CEHs; Ops Topics: 1.5 CEHs; Sim: 0.0 CEHs)

Mod 4 - PJM Certification: Energy & Ancillary Services Market Operations - PJM Manual 11

The module reviews elements of the PJM Manual 11 - Energy & Ancillary Services Market Operations. The manual review focuses on the day ahead and hourly scheduling activities that are performed by PJM and PJM Members. The review includes the description of the rules and procedures for scheduling resources. The module then provides an overview for Scheduling Operations, the PJM Two Settlement System, and the PJM Regulation Market. The review identifies the scheduling philosophy, tools, strategy, and methodology. (NERC Total CEHs: 5.0 CEHs – Standards: 0.0 CEHs; Ops Topics: 5.0 CEHs; Sim: 0.0 CEHs)

Mod 5 - PJM Certification: Balancing Operations - PJM Manual 12 Review

The module reviews elements of the PJM Manual 12 – Balancing Operations. The manual review focuses on the real-time operation of the PJM Energy Market. The module then describes how PJM dispatches and controls capacity resources and how PJM monitors transmission facilities. The module concludes with a description of how PJM provides ancillary services. (NERC Total CEHs: 4.0 CEHs – Standards: 0.0 CEHs; Ops Topics: 4.0 CEHs; Sim: 0.0 CEHs)

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Mod 6 - PJM Certification: Transmission Operation

The module reviews elements of the PJM Manual 3 – Transmission Operations. The Transmission Operations review focuses on specific transmission conditions and procedures for the operation of PJM designated transmission facilities. The review then explores transmission operations requirements, thermal operating guidelines, voltage and stability operating guidelines and identification of reportable transmission facility outages. (NERC Total CEHs: 3.5 CEHs – Standards: 0.0 CEHs; Ops Topics: 3.5 CEHs; Sim: 0.0 CEHs)

Mod 7 - PJM Certification: Emergency Operations - PJM Manual 13

The module reviews elements of the PJM Manual 13 – Emergency Operations. The Emergency Operations manual review focuses on PJM and PJM Members expected responses to emergency conditions. The emergency conditions explored include conditions requiring manual or automatic action to maintain system frequency or to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property. (NERC Total CEHs: 5.5 CEHs – Standards: 0.0 CEHs; Ops Topics: 5.5 CEHs; Sim: 0.0 CEHs)

Mod 8 - PJM Certification: System Restoration - PJM Manual 36 Review

The module reviews elements of the PJM Manual 36 – System Restoration. The System Restoration manual review focuses on PJM and PJM Members expected actions during a system restoration event. The module explores the various disturbance conditions and the assessment required to determine the system conditions. The module identifies the restoration process, communications required during the process, and the PJM reserve requirements. The manual review addresses issues and considerations related to generation and transmission facilities during the restoration effort. The manual identifies the PJM restoration plan guidelines and culminates with the identification of the cross zonal coordination. (NERC Total CEHs: 4.5 CEHs – Standards: 0.0 CEHs; Ops Topics: 4.5 CEHs; Sim: 0.0 CEHs)

Mod 9 - PJM Certification: Control Center and Data Exchange Requirements - PJM Manual 1 Review

The module reviews elements of the PJM Manual 1 – Control Center and Data Exchange Requirements. The manual review focuses on the requirements for control centers that are signatories to the PJM Operating Agreement. The review describes the telecommunication linkages to PJM and the recommended characteristics of these control center computer systems and facilities. It then identifies computer services and systems at PJM and touches on meter accuracy standards. (NERC Total CEHs: 1.5 CEHs – Standards: 0.0 CEHs; Ops Topics: 1.5 CEHs; Sim: 0.0 CEHs)

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Mod 10 - PJM Certification: Generator Operational Requirements - PJM Manual 14 Review

The module reviews elements of the PJM Manual 14 – Generator Operational Requirements. The manual review focuses begins with identification of the requirements for generator participants to connect to the PJM system. The module then describes communication and data requirements of PJM and Local Control Centers. The review then touches on defining telecommunication protocols, redundancy requirements, accuracy and periodicity of data, generator obligations, and reporting requirements. (NERC Total CEHs: 3.0 CEHs – Standards: 0.0 CEHs; Ops Topics: 3.0 CEHs; Sim: 0.0 CEHs)

Mod 11 - PJM Certification Testing

The module is established to provide students with an opportunity to complete a 90 multiple-choice question test indicative of the PJM Certification exam. It is intended to provide students with an indication of their current knowledge related to content included in the PJM Certification Program and identify areas for additional review.

PJM TESTTRAK™

PJM TESTTRAK™ is an innovative tool from OES-NA designed for utilization in preparing for the PJM Generation or Transmission Certification Exam. TESTTRAK™ provides web-based activities that help system operators strengthen test taking skills and also provides them with the opportunity to gain knowledge and experience with answering questions similar to those present on the PJM Certification Exams. PJM TESTTRAK™ offers the individual five opportunities to complete quizzes and tests in preparation for taking the PJM Certification exam.

PJM Certification Prep Cost: \$1,300.00 (29.5 NERC Total CEHs)

TOTAL: 29.5 CEHs

Standards: 0.0 CEHs

Ops Topics: 29.5 CEHs

Sim: 0.0 CEHs

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