

PROJECT CASE STUDY

PECO CENTER POINT SUBSTATION

PECO Energy Company, a subsidiary of Exelon Corporation, is a utility serving 1.6 million electric customers and 480,000 natural gas customers in southeastern Pennsylvania. PJM Interconnection, the agency that manages the region's power grid, identified the potential for overloads to PECO's 500/230 kV transformers #1 & #3 and other local substations. If a new substation was not built before 2010 to accommodate additional load on the transmission network, there would be a significant risk of service interruptions and blackouts - locally and throughout the entire region.

As a result, PECO constructed the \$45 million Center Point Substation in Worcester Township, Pennsylvania. In the event of an overload, the substation will convert and transmit 500-kilovolt power from one set of transmission lines to 230-kV power on another set of transmission lines. The power will then be re-routed and sent through the regional electrical system more efficiently.

Relay and Power Systems, a division of Rumsey Electric, turned to Lectrus for help. Lectrus' talented engineers and craftsmen designed and built an integrated, two-section control house (e.g. electrical equipment center) to contain and protect the following control equipment: relay cabinets, marshalling cabinets, distribution panels, disconnects, battery system, fire detection/suppression system, telecommunications equipment and other utilities.

The robust, walk-in NEMA 3R metal enclosure features interior 2- and 3-hour fire walls and double-stacked cable tray. There are 4,820 wiring points and 9,361 feet of conduit used during the electrical integration process for this complex and unique 1,860 sf substation control house. The site installation was performed by Dubak Engineering, Lectrus' exclusive turn-key site installation partner.



PROJECT PROFILE

// PROJECT //

PECO Center Point Substation

// LOCATION //

Worcester Township, Pennsylvania

// MARKET SEGMENT //

Power Transmission & Distribution

// EQUIPMENT PROTECTED //

500-230 kV control equipment

// PRODUCT //

Equipment center

// ENCLOSURE SIZE //

31 ft x 60 ft

// DATE COMMISSIONED //

August 2010

// CUSTOMER //

Relay and Power Systems, a Division of Rumsey Electric

// OWNER //

PECO Energy Company

lectrus®

ENGINEERED TO SPEC. BUILT TO LAST.

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