

Transformer Overload Sectionalizing Scheme

Client: ComEd

The scope of this project was to provide the engineering and procurement for a new transformer overload sectionalizing scheme. This scheme was designed to provide relief of a 345kV / 138kV transformer during overload conditions. This was accomplished by the automatic isolation of this transformer from another parallel 345kV / 138kV transformer as well as transmission lines connected to an adjacent 138kV bus.

This required the installation of redundant (System 1 and System 2) relaying systems utilizing the overcurrent functionality of a Schweitzer SEL-351A relay for each system. The relays were set to detect an overload (overcurrent) condition of 500MVA on the transformer. When 500MVA was met or exceeded on the transformer, each system's relay would trip a normally closed 138kV bus-tie circuit breaker and close a normally open 138kV bus-tie circuit breaker.



Each system's relay was connected to an existing SEL-2030 Communications Processor on the SCADA System via a communication port connection. This allowed for alarms and other data to be communicated to the SCADA System.

To learn more, please contact us at:

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