

# Midwest Coal Power Plant Integrates Generation Control and Switchyard Data with DCS controls Using Experion SCADA DNP Serial Interface



## INDUSTRIAL DESIGN SOLUTIONS

**A Midwest Generating company selected control systems integrator Industrial Design Solutions to upgrade the plant's existing Automatic Dispatch System and Data interface of Switchyard Data.**

### BACKGROUND

With the challenges caused by renewable energy and increased grid variability, power plants in the Midwest ISO market need a better interface to dispatch units, and resolve errors in billing calculations caused by meters owned by different entities.

### SOLUTION

The solution was to establish a redundant DNP 3.0 communication connection to the plant SEL protective relaying system, as well as to the existing GE Harris D20 RTU where dispatch signals were received. For security, a terminal server was used to provide a serial connection between the remote RTU and the DCS network.



- Integration of boiler, turbine, dispatch, protective relaying, and metering data
- Shared metering eliminated concerns of measurement errors
- Common historian for all data for future analysis
- Single system for operator HMI graphics for data and control

### THE BOTTOM LINE

Integrating multiple manufacturer equipment into a single unified system improves accuracy, control, and minimizes confusion for historical data and revenue reconciliation.

#### SOLUTION BENEFITS

- Common HMI
- More accurate dispatch
- Network Isolation for security and NERC CIP compliance
- New interface for future expansion and addition without additional cost

#### SOLUTION ROI

- More accurate revenue reconciliation
- Single source for data eliminating merging from different systems
- Improved dispatch accuracy
- Greater operator visibility of systems in a single location

#### SOLUTION PLATFORM

- Honeywell Experion PKS, HPM, C200, SCADA
- DNP 3.0 protocol, SEL, GE Harris D20

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**Project Duration: 3 months**