

American Transmission Company

Enhanced SCADA and PMU Communications Backbone Project

Abstract

American Transmission Company's (ATC) Enhanced Supervisory Control and Data Acquisition (SCADA) and Phasor Measurement Unit (PMU) Communications Backbone project is deploying new fiber optic transmission communications infrastructure across the company's Wisconsin footprint. The interconnection of the new fiber segments expands ATC's data communications and integrates a total of 149 substations within ATC's data communication and collection networks. Targeted benefits include improved communications reliability and reduced operations and maintenance costs.

Smart Grid Features

Communications infrastructure consists of interconnected substation fiber optic segments with pre-existing leased fiber optic cable or cable capacity for a more integrated and reliable communications system. The leased fiber is also connected with pre-existing, ATC-owned optical fiber ground wire (OPGW) to interconnect the leased and OPGW fiber network systems.

Installation of new OPGW completes the fiber optic backbone network. ATC intends to enhance these capabilities by installing satellite communication links that transmit electric transmission operating data to the communications satellites and back to ATC's system control centers.

Timeline

Key Milestones	Target Dates
Communications system installation start	Q2 2011
Communications system installation complete	Q1 2013

Contact Information

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At-A-Glance

Recipient: American Transmission Company

State: Wisconsin

NERC Region: Midwest Reliability Organization

Total Budget: \$22,888,360

Federal Share: \$11,444,180

Project Type: Electric Transmission Systems

Equipment

- Synchrophasor Communication Systems

Key Targeted Benefits

- Improved Communications Reliability
- Reduced Operating and Maintenance Costs