DANNY FREDERICK, P.E.

PROJECT ENGINEER

YEARS OF EXPERIENCE

11

EDUCATION

> B.S., Civil Engineering, University of Missouri, Columbia, 2002

AREAS OF EXPERTISE

> Drilled-pier foundation design
> Alternative foundation design
> On-site inspection
> Transmission structure design
> Transmission structure spotting
> Material specifications
> Construction specifications
> On-site engineering

LICENSING

> P.E., Civil: Missouri

HARDWARE/SOFTWARE

> PLS-CADD
> PLS-Pole
> Alcoa Sag10
> TLW-FAD
> AutoCAD

EXPERIENCE SUMMARY

Mr. Frederick is an experienced transmission line engineer, specializing in foundation and structural engineering for overhead transmission line projects. As a project engineer, he is responsible for all technical aspects of transmission line projects. As a foundation engineer, he has met many design challenges, including installation of foundations in lakes, in mine spoils, and water crossings. His experience includes new line designs and rebuilds of existing transmission lines, with voltages up to 500 kV.

Progress Energy Florida, Lake Bryan to Windermere 230 kV Line, Florida

Design Engineer responsible for assisting in the foundation and structural engineering. POWER was responsible for the design and layout of approximately 10 miles of 230 kV double circuit transmission line using tubular steel structures with polymer braced-post insulators and 1622 Pecos/ACSS/TW conductor. The work scope included survey coordination, structure layout, foundation design, utility coordination, wetland access roads, permit drawings and structure design. The project required minimizing outages on the existing 230 kV line and transferring an OPGW cable from the existing line to the new line.

Progress Energy Florida, Vandolah-Whidden 230 kV Line, Florida

Design Engineer responsible for assisting in the foundation and structural engineering. POWER was responsible for the design and layout of approximately 15 miles of 230 kV double circuit transmission line utilizing tubular steel structures with polymer braced-post insulators and 1622 Pecos/ACSS/TW conductor. The work scope included routing analysis, attendance at public meetings, survey coordination, structure layout, foundation design, utility coordination, wetland access roads, permit drawings and structure design.

Kenny Construction Company, 500 kV Trans Allegheny Interstate Line, Multiple States

Civil/Structural Engineer responsible for final foundation design for a new 500 kV transmission line. The project features 500 kV lattice steel structures. POWER was the design and permitting contractor for a 160-mile line that spans Allegheny Energy's service territory from SW Pennsylvania through West Virginia to northern Virginia. POWER provided environmental resource studies and jurisdictional permitting and licensing services, and detailed transmission line engineering and design, including material specification and establishing new line and structure design criteria.

EXHIBIT
14

Otter Tail Power Company, Montana Dakota Utilities, Big Stone South to Ellendale 345 kV Transmission Line, Multiple States

Project Engineer responsible for preliminary line design and permitting support. Duties included the development of an aerial survey specification, conductor optimization study, structure optimization study, design criteria development, route and corridor development support, structure spotting, and representing engineering at the public and PUC meetings. This multi-value, jointly-owned, 165-mile 345 kV transmission line project is integral to the MISO transmission network to improve reliability, increase system capacity, and support public policy. POWER is providing overall project coordination for the environmental, permitting, routing, right-of-way acquisition, surveying, and legal support work (done by others), and is completing the preliminary engineering for this transmission line. In addition, POWER's scope involves design support including development of the design criteria, conductor selection, evaluation and selection of structures, preliminary structure spotting, and cost estimating.

American Transmission Company, Arrowhead to Weston 345 kV Transmission Line, Wisconsin

Project Engineer for two line sections consisting of 49 miles of single circuit and double circuit 345/161 kV line. Also served as the overall lead design engineer for steel structure and foundation design (all are drilled pier foundations). Responsible for all engineering field reviews of the structure spotting on the entire line. The project involved design and construction of a new 220-mile-long, 345 kV steel pole transmission line running from southern Minnesota to central Wisconsin. POWER's project scope included field surveys, electrical studies, structure designs, line design, material specifications, construction specifications, right of way acquisition and construction monitoring services. The noteworthy project received achievement awards from the Wisconsin chapter of ASCE and from the Edison Electric Institute.

CAPX 2020, Transmission Expansion Initiative, Multiple States

Project Engineer for Owner's Engineer services for two transmission projects under the CAPX 2020 initiative. The projects are a 200-mile, 345 kV transmission line from South Dakota to the Twin Cities, MN, area, (including four substation modifications and three new substations); and a 70-mile, 230 kV transmission line between Bemidji and Grand Rapids, MN (including two substation modifications and one new substation). Responsibilities included development of the material specifications, development of the construction specifications, performing vendor audits, performing technical reviews of the civil and electrical design, construction inspection and as-built review. CapX 2020 is a major initiative of 11 regional utilities to boost capacity and reliability of the electric transmission grid in Minnesota and surrounding states. POWER is acting as Owner's Engineer for four of the projects. Collectively, these projects will result in construction of roughly 600 miles of 345 kV transmission line, 70 miles of 230 kV transmission line, 9 new substations and modifications to several existing substations.

Sunflower Electric Power Corporation, Buckner Tap, Kansas

Project Engineer responsible for accelerated schedule of the installation of a

tap into a 345 kV lattice tower E+PC transmission line project.

Sunflower Electric Power Corporation, River Road to Barber 115 kV Transmission Line, Kansas

Project Engineer responsible for the overall technical design of this 115 kV E+PC transmission line project. Responsibilities include structure design, foundation design, and material procurement. POWER is providing engineering services for an upgrade of Sunflower Electric Power Company's 115 kV River Road to Barber transmission line. The project encompasses nearly 25 miles of transmission line design and construction support that includes the replacement of existing wood H-frame structures with single circuit steel poles.

National Grid, Mullbury #3 to West Farnum 345 kV Transmission Line, Massachusetts

Project Engineer responsible for engineering and design services for the new Millbury #3 to West Farnum 345 kV Transmission Line (Line 366), a part of the New England East-West Solution (NEEWS) project for National Grid. Responsible for structural design, structure spotting, foundation design and budgeting updates. POWER is providing owner's engineering services for NEEWS, a major project to construct new transmission facilities and upgrades in Massachusetts and Rhode Island. These projects include new 345 kV single circuit transmission lines, reconductoring of existing 345 kV lines, rebuilds of existing 115 kV lines, new 115 kV taps to multiple substations, expansions and modifications to an existing 345/115 kV substation, and a new 345/115 kV substation. POWER's involvement includes engineering and design services; material, equipment, and construction services; procurement support; construction management; and start-up and close-out services.

Xcel Energy, Yankee to Brookings 115 kV Line, Minnesota, South Dakota

Project Engineer for a new, 12-mile, 115 kV transmission line in South Dakota and Minnesota. As one of the Buffalo Ridge Interconnection Generation Outlet (BRIGO) projects, approximately 6.5 miles in MN and 6.5 miles in SD of new line will be installed as an additional outlet for wind power generation. The line is single circuit, bundled conductor line on weathering steel poles and drilled pier foundations. There are sections of line that are required to be double circuit sections due to right of way constraints and corridor sharing.

Public Service Company of New Mexico, Alamo Tap to Alamo #1 115 kV, New Mexico

Project Engineer for 6 ½ miles of new wood pole and steel pole transmission line including distribution underbuild. This line was part of a reliability upgrade in the area which brings a new 115 kV source into the Alamogordo, NM area.

Texas New Mexico Power, Alamogordo to Tularosa 115 kV Line, New Mexico

Design Engineer for a new, 14 mile, 115 kV transmission line that features both wood and steel pole structures. The line is single circuit with distribution underbuild. The line is part of a reliability upgrade for the area.

Kenny Construction, Werner West 345/138 kV Lines, Wisconsin

Design Engineer involved in the construction phase of this project. Responsible for the engineering required to reconcile a number of construction issues and to also responsible for creating as-built documents. The project involved four 345 and 138 kV cut-ins to a new substation. The line has steel pole H-frame and three-pole dead-end structures.

American Transmission Company, DCRP #2, 138 kV Lines, Wisconsin

Design Engineer involved in the construction phase of this project, which was part of the Dane County Reliability Project #2 (DCRP). Responsible for the engineering required to reconcile construction issues and to create as-builts for the project. The line featured wood and steel pole structures at 138 kV, both single and double circuit. The project involved existing lines that were re-conductored and/or involved the installation of a fiber optic communication wire.

Oncor Electric Delivery, Rockwall - East Richardson 138 kV Line, Texas

Design Engineer responsible for challenging foundation designs on this 138 kV project. Designed foundations through approximately 2-1/2 miles of marsh and lake area. Some foundations had to be constructed in depths of 10-40 ft of water. Foundations required were drilled piers and vibrated steel piles. The transmission line features single circuit and double circuit steel pole structures.

American Transmission Company, North Randolph - Mackford Prairie, 69 kV, Wisconsin

Design Engineer for this new 10 mile, 69 kV transmission line. Responsible for engineering and design while also coordinating with survey and construction management teams. The line is single circuit wood pole structures involving distribution underbuild.

Wisconsin Public Service Corp., Sherman Street – Wausau West Hydro 115 kV Transmission Line, Wisconsin

Design Engineer for this 1.2 mile transmission line rebuild from 46 kV to 115 kV. Responsible for engineering and design while also coordinating with surveyors. The line is double circuit steel pole structures involving distribution underbuild with special consideration given to structure spotting.

Southern Mississippi Electric Power Association, 161 kV Transmission Lines, Mississippi

Design Engineer on this project that involved six different transmission lines. The lines are all 161-69 kV double circuit lines with future capacity to become 161-161 kV circuits. These lines comprise approximately 75 miles

and use single pole concrete structures.

PREVIOUS WORK HISTORY