OVERVIEW

Mr. Stewart has over 11 years in the energy industry with a specialty in transmission planning and operations. His expertise includes the following areas:

- Transmission expansion planning
- Renewable generation interconnection studies
- Power flow and stability analyses
- Short circuit analyses
- Project management
- NERC Reliability Standards compliance
- Process and procedure development
- Operational planning and real-time assessments (OPAs/RTAs)
- Power system modeling

Mr. Stewart is an accomplished engineering professional with a strong technical background, and a deep understanding of the electrical utility industry. He is analytical and adept at gathering and translating complex data into viable solutions. He has substantial experience using General Electric's Concorda Positive Sequence Load Flow (PSLF) and Transmission Security Management (TSM) software. He has been instrumental in the planning, design, and operation of transmission systems in the Western Electricity Coordinating Council (WECC) interconnection.

PROJECT EXPERIENCE

Interconnection Services

Mr. Stewart has coordinated with interconnection customers and provided guidance throughout the interconnection process to minimize project costs while also maximizing transmission reliability. He has performed feasibility, system impact, and facility studies for many renewable generation interconnection projects. He has developed and implemented multiple policies and procedures regarding solar and wind generation interconnections and data requirements. He has also managed interconnection studies performed by outside consulting firms, where he was responsible for providing data, reviewing study results and reports, and coordinating with internal departments for project designs and cost estimates.

Transmission Planning

Mr. Stewart has developed short- and long-term transmission expansion plans by optimizing system economics, reliability, operating flexibility, and risk. He has conducted power flow, transient stability, and voltage stability analyses in compliance with NERC Transmission Planning (TPL) Reliability Standards. He has performed path stressing studies using strategic generation pockets to maximize transfers and schedules. He has performed short circuit studies for transmission expansion plans. He has developed

procedures for planning studies, compliance, and internal company processes. He has managed transmission projects and developed system plans, business cases, and budgets.

Transmission Operations

Mr. Stewart has conducted, reviewed, and coordinated operational assessments (current-day, next-day, outage planning, seasonal, delayed clearing, and blackstart) to determine real-time impacts on the transmission system. He has performed power flow and dynamic simulations of power system events to ensure the safe, reliable operation of the Bulk Electric System (BES) and underlying facilities. He has provided oversight, evidence, and documentation for operations-centric NERC Reliability Standards (EOP/IRO/TOP). He has developed operating procedures and mitigation plans for transmission management, and coordinated these procedures with operating personnel, neighboring utilities, and the regional Reliability Coordinator (RC). He has monitored and maintained real-time network models and ensured accurate State Estimator (SE) and Real-time Contingency Analysis (RTCA) solutions. He has participated in regional study groups and subcommittees involving utilities, contractors, and customers.

PROFESSIONAL HISTORY

Mr. Stewart began his career with Arizona Public Service Company in 2007 when he was hired as an Intern working with one of their maintenance groups. In 2008, he was hired as an entry level Planning Engineer and acquired experience in both transmission planning and operations. In 2015, he moved to Western Area Power Administration as an Operations Support Engineer for the Transmission Operations group. In 2016, Mr. Stewart became certified as a NERC RC System Operator.

EDUCATIONAL AND PERSONAL

Mr. Stewart has a B.S. degree in Electrical Engineering from Arizona State University.