RANDALL W. PORTER, P.E.

EXECUTIVE CONSULTANT & MANAGER, TRANSMISSION and RESOURCE PLANNING

SUMMARY OF EXPERIENCE AND EXPERTISE

- Experienced in electric power delivery system planning, energy supply resource evaluation, power supply planning, resource portfolio development, and integrated resource planning.
- Experienced in managing and performing generation interconnection studies including combined cycle, simple cycle, coal, wind, and biomass fueled electric generating stations.
- Registered professional engineer in Minnesota.

PROFESSIONAL EXPERIENCE

Power System Engineering, Inc. - Minneapolis, MN (February 2008-present)

Executive Consultant & Manager, Transmission Resource Planning

Responsible for projects involving generation interconnection, electric transmission planning, distribution planning, and renewable energy resource integration into the grid. Performs power system technical and economic analysis. Evaluates alternatives and presents project alternatives and/or results to clients. Negotiates schedule and budget changes and ensures client needs are met. Represents clients before their senior company management, business partners, and regulators. Writes technical reports on findings in resource studies. Specific project experience:

- Electric transmission system, generation interconnection, and short- and long-range planning in multiple states and provinces.
- Represents Clients in multiple MISO, PJM, SPP, AESO and other RTO processes and stakeholder working groups.
- Multiple generation interconnection studies for projects ranging from 5-500 MW.
- 2009 and 2010 Minnesota Resource Plans.
- Formula rate design, power supply planning, and wood, gas, solar, and biomass evaluation.

Avant Energy - Minneapolis, MN (2005-2008)

Vice President of Consulting & Development

Created new company business unit. Managed successful merger of legacy departments, projects, and procedures. Determined strategic direction for business unit. Initiated and implemented directives to drive departmental vision. Inspired and enabled project managers to meet personal and team goals. Evaluated and negotiated with potential business partners. Built long-term relationships that resulted in successful outcomes for all partners. Ensured team projects were on schedule and on budget. Presented project results to clients. Proven ability to lead cross-functional teams and communicate technical issues. Advised leaders of other business units on industry changes and project status. Coordinated work efforts with other business units.

- Managed 250 MW combined cycle plant permitting and interconnection, interconnection of 50-250 MW wind farms, interconnection contract negotiation, air and water permitting, wind collector system design, substation interconnection and testing, and construction management.

Dahlen, Berg & Co., Inc. - Minneapolis, MN (2002-2005)

Director of Regulatory Affairs, Faribault Energy Park & Senior Consultant, Consulting Services

Consultant to municipal utility, industrial commercial, and institutional clients on issues related to power transmission, power supply planning, utility operations, electric power trading, and electric utility restructuring. Involved in needs assessment, regulatory filings, solicitation of bids, and negotiation of power supply contracts. Project manager of generation transmission interconnection studies and generation need and site permitting for generator projects. Manager of transmission tariff and interconnection issues. Performed transmission interconnection studies. Managed permitting, environmental, and conceptual engineering of large gas-fired generation project. Represented clients and customers before regulatory bodies, other companies, and in legal proceedings. Acted as customer advocate during Agency and Industry negotiations. Prepared and presented written and oral testimony at need, site, routing, and emissions hearings. Familiar with changing industry practices and their potential impacts on customers. First-hand knowledge of Midwest Independent System Operation (MISO) and NE ISO tariffs, Mid-Continent Area Power Pool (MAPP), and individual company Open Access Transmission Tariffs (OATTs). Responsible for department and project proposals and budgets. Trained junior engineers and analysts in engineering and economics.

- Authored Certificate of Need for a 250 MW power plant.
- Obtained site and route permits.

Xcel Energy - Minneapolis, MN and Denver, CO (2000-2002)

Manager, Engineering/Design Outsourcing

Evaluated potential business partners and managed substation project workload and capital budgets. Member of Xcel management team that initiated best practices of 3 merged utility companies across a 12-state service territory. The management team consistently completed substation construction projects on time and on budget while ensuring adherence to high quality construction standards.

- Scoped substation projects and performed technical studies to support team projects.
- Provided direct technical support of permitting and right-of-way issues.
- Managed department operations and maintenance budget at a level below corporate guidelines.

Northern States Power (NSP) - Minneapolis, MN (1989-2000)

Manager, Strategic Planning (1998-2000)

Responsible for management of strategic planning department. Formulated and implemented vision for planning work cycles. Coached and mentored team members on goals, career development, and progress. Proven ability to address difficult personnel, resource, and customer service issues. Acted as departmental interface to matrix

organization. Performed technical distribution and transmission planning studies to mentor and assist team members. Extensive process creation and process re-engineering experience. Managed departmental budget of $1 million at or below targets.

Senior Specialty Engineer, Electric Delivery System Planning & Engineering (1995-1998)

WI Advance Plan 8 Author. Evaluated entire NSP-W transmission system in conjunction with other utilities, Wisconsin Public Service Commission, and NSP-W staff. Member of MAPP Model Building Working Group. Created NSP portion of MAPP models that were used for OASIS, LRP, and MAPP system studies. Team Leader of Powerflow model construction team. Researched and verified accuracy of transmission models and distribution loads. Team Leader of Greater Minnesota study. Overall responsibility for development of 15-year transmission and distribution plan for the State of Minnesota.

Electrical Engineer, Electric Delivery System (1993-1995)

Instrumental in introducing SAIDI, SAIFI, CAIDI, MAIFI indices and evaluation techniques across NSP. Developed and benchmarked reliability and rehabilitation programs for NSP transmission, distribution, and customer systems. Managed project financing, project construction, and customer service.

Engineer II, Transmission Planning Department (1989-1993)

Project Leader of North Dakota-Manitoba Intertie study. Identified and analyzed bulk transmission issues. Experienced working closely with large industrial customers in a team atmosphere. Proven ability to address reliability, security, contract, and cost-sharing issues. Experienced with dynamic simulation of large motor loads. Active in negotiation and business planning on the leading edge of utility customer service. Loss Analysis engineer for NSP. Developed system loss philosophy and calculations for use in system operations, inter-utility contracts, and system studies. Responsible for Transmission System Planning for Twin Cities' metropolitan area. Identified problems in, and executed studies of, the Twin Cities' transmission system. Duties included: system modeling, option consideration, powerflow analysis, plan development, economic analysis, coordination of plans with design, construction, distribution, and operations departments, and supervision of students.

Northern States Power - Monticello Nuclear Generating Plant, Monticello, MN (1988-1989)

Engineer I, Technical Engineering

Researched and responded to NRC bulletins and notices. Identified, planned, issued, and coordinated work to maintain and enhance plant reliability and availability. Experienced with 4 kV switchgear and UPS systems. Provided technical expertise to plant operators, operations engineers, and maintenance personnel.

EDUCATION

University of Minnesota, Minneapolis, MN
Bachelor of Science Degree in Electrical Engineering, 1988

Duluth Area Vocational Institute, Duluth, MN
Certificate in Residential and Commercial Wiring