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## QUALIFICATIONS

- Thirty one years of experience in the electric utility industry with five years devoted to customer service activities in the area of Energy Management/Demand Side Management (DSM); eight years devoted to rate and regulatory activities; and 18 years devoted to electrical engineering and engineering consulting
- Thirteen years of experience as an effective leader of technical staff
- Fifteen years of Project Management experience
- Excellent oral and written communication skills
- Proficient with PSLF, SKM and EDSA power system models
- Solid understanding of Power and Control Systems, Demand Side Management (DSM), renewable energy resources and electric service rates and issues
- Registered Professional Engineer

## PROFESSIONAL EXPERIENCE & ACCOMPLISHMENTS

### TECHNICAL

- Developed Conceptual and preliminary design for wind farm collector system and transmission interconnections for proposed wind projects in Maine, Massachusetts, New York and Canada. (Cape Wind, Hoosac Wind, Reddington Wind, Kibby Wind, Marble River, Clinton County, West Hill, North Slope, Norway and West Cape.
- Participated in the conduct of System Impact Studies for Marble River Wind, West Hill Wind, Clinton County Wind, South Norwalk Repowering, Lempster Wind and Waterside Generator Addition.
- Designed multiple 2.5 MVA medium voltage service additions for Procter & Gamble's Tambrands Facility in Auburn, Maine.
- Designed 1.7 MW Emergency Power System with automatic transfer for waste water treatment facilities at International Paper's Bucksport mill.
- Conducted an independent review of Bangor Hydro Electric Company's service quality for the State of Maine on behalf of the Public Advocate's Office.
- Performed plant-wide electrical distribution system evaluation for Perrier's Poland Spring Bottling facility in Poland Spring, Maine.
- Performed short circuit and protection coordination analysis of plant-wide electrical systems at Procter & Gamble's Tambrands Auburn facility, Groveton Paper Board's Groveton facility and the Jackson Laboratory Bar Harbor facility
- Performed comprehensive EMF surveys and calculations for proposed power facilities in Uxbridge, Massachusetts; Natick, Massachusetts; Dighton Massachusetts; Johnston, Rhode Island; and Tiverton, Rhode Island; Middletown Connecticut; Yarmouth, Massachusetts; Meriden, Connecticut; Norwalk, Connecticut and testified before both the Connecticut and Massachusetts Facility Siting Council on the issue.

- Performed comprehensive EMF analyses for proposed HV transmission projects in East Garden City, Levittown, Melville, Rochester, Southampton and Smithtown, New York and submitted testimony before the New York State Public Service Commission on the issue.
- Performed EMF surveys on over 50 residential households, municipal buildings, commercial and industrial facilities.
- Served as owner's representative for the Commissioning of Jamaica Private Power Company's (JPPC) 60 Mw diesel power plant in Kingston, Jamaica.
- Performed detailed surge protection analysis for transmission facilities at International Paper Company, AES Londonderry, Public Service of New Hampshire and Meriden.
- Developed reactive compensation rates and presented supporting testimony before the FERC for Consolidated Edison's and Old Dominion Electric Cooperative's power facilities in Virginia and New Jersey.
- Conducted embedded and marginal cost of service studies and sundry rate design analyses for retail and wholesale rate cases. Developed rate tariffs, rules and regulations and applications for Maine PUC and FERC submissions.
- Testified before the Maine PUC on matters relating to retail cost of service, pole rental rates, and cost effectiveness of DSM programs.
- Conducted seminars on rate and energy management topics.

#### MANAGEMENT

- Served as oversight witness for interconnection relay and trip testing for Central Maine Power Company.
- Served as Project Manager of Central Maine Power Company's Generation Management System (GMS), Androscoggin Energy LLC (AELLC), Rumford Power Associates (RPA), and Bucksport Energy, LLC (BELLC) Merchant Plant Projects.
- Managed the Central Maine Power Company's power contracts and joint owner's agreements associated with Maine Yankee, Connecticut Yankee, Vermont Yankee, Yankee Rowe and Millstone Unit 3.
- Served as Director of System Engineering for Central Maine Power responsible for relay and control panel designs for line terminal and transformer panels, procurement specifications for large power transformers, uninterruptable power supplies, battery systems and other electrical components.
- Directed the organization and development of the Electric Council of New England (ECNE) National Conference "Demand-Side Management: Partnerships in Planning" held in Boston, Massachusetts in November of 1989.
- Worked with clients to resolve technical questions related to rates, energy management programs and power quality.

## **EDUCATION**

B. S., Electrical Engineering, University of New Hampshire, 1974

M. S., Management, Thomas College, 1980

## **EMPLOYMENT HISTORY**

E-PRO ENGINEERING & ENVIRONMENTAL CONSULTING, LLC – Augusta, ME

2006 – present      *Manager, Power System Studies*

E-PRO ENGINEERING & ENVIRONMENTAL CONSULTING, LLC – Augusta, ME

1999 – 2006      *Principal Electrical Engineer*

E-PRO AND CENTRAL MAINE POWER COMPANY – Augusta, ME

1997 – 1999      *Principal Electrical Engineer*

1995 – 1996      *Director of Business Development*

CENTRAL MAINE POWER COMPANY – Augusta, ME

1994 – 1995      *Technical Coordinator, Nuclear and Interim Manager of Electrical Support Services*

1991 – 1993      *Director of System Engineering*

1986 – 1990      *Director of Energy Management Planning*

1984 – 1985      *Director of Costing and Pricing Analysis*

1975 – 1983      *Staff Engineer in the Operating and Rate Departments*

## **PROFESSIONAL AFFILIATIONS / REGISTRATIONS**

- Registered Professional Engineer, Maine, #3811, since 1978
- Registered Professional Engineer, New Hampshire, #10409, since 2001