

James N. Sheldon, P.E.

17 Saint Mark's Place, Fort Montgomery, NY 10922

Mobile/Text: (845) 803-4994

Email: jimsheldon1122@gmail.com

ACADEMIC DEGREES:

B.S.E.E. Manhattan College, Riverdale, New York

M.S.E.E. Manhattan College, Riverdale, New York

EXPERIENCE:

AtkinsRealis, Inc.

10 40th St. New York, New York 10016

October 2024-Present:

Senior Director - Operations

- Technical consultant and subject matter expert for engineering design services and business development support relating to transmission and distribution, fossil and nuclear power generating facilities, and industrial process systems.

United Engineers and Constructors, Inc. 305 Fellowship Road. Mount Laurel, NJ 08054

December 2022-Present:

Chief Electrical Engineer – Operations Management

- Duties included direct management of approximately 60 staff engineers and designers/drafters. Subject Matter Expert for all electrical/protection/instrumentation and controls matters relating to design and support services for: transmission and distribution system upgrade and expansion projects, conventional and nuclear power generating facilities, including SMR, and industrial process systems.

New York Power Authority

Corporate Headquarters, 123 Main St. White Plains, New York 10601
Transmission Development Corporation

March 2021-December 2022

Senior Director - Transmission Development

- Technical advisor on matters relating to transmission planning studies and system design and construction standards to support renewables integration and transfer interface improvements for the New York State transmission system.
- VISION2030: Responsible lead for the identification of transmission projects to support CLCPA goals, including Long Island Offshore Wind PPTN; Clean Path NY HVDC Project; Southern Tier Area Transmission Expansion; Watertown Area Transmission Expansion.
- All competitively bid projects were ultimately awarded to NYPA.

New York Power Authority

Corporate Headquarters, 123 Main St. White Plains, New York 10601
Utility Operations - Technical Support Services

November 2017-March 2021

Senior Director - Transmission Planning and Analysis

- Direct reports included Director - Transmission Planning; Manager of Interconnection and System Standards; Manager of Special System Studies.
- Software modeling tools include Aspen, PSS/E, TARA, PLS-CADD, SKM, ETAP, EMTP, Rate-Kit, PROMOD.
- Responsible for providing policy recommendations and technical guidance regarding the reliability and adequacy of the New York Independent System Operator bulk power transmission system.
- Determine transmission expansion needs and the application of new technologies to support transmission interconnection requests, siting of new generation sources and upgrades, and supporting the replacement or re-purposing of existing plants.
- Monitor merchant generator interconnections and NERC compliance and standards programs to ensure adherence with statewide, regional and national reliability rules and criteria for planning, engineering and design.
- Maintain generation and transmission engineering design guides and standards.
- Supervise all system studies.
- Ensure productive and cooperative working relationships with developers, interfacing utilities and NYISO.
- NYPA Puerto Rico Task Force: Provided technical support to PREPA for engineering and system planning studies as part of restoration and reliability improvements, including dispatch security,

contingency, and stability analysis, as well as development of transmission facility ratings methodology.

- NYPA Virgin Island Task Force: Prepared technical justifications for system T&D upgrades.
- NYPA Wind Energy Interconnection Task Force: Supervised planning studies and substation design recommendations to evaluate AC/DC link options for renewables injection throughout NYS.
- Appointed NYPA technical advisor to NYSERDA and NYSDPS "State Team" Power Grid Study Working Group, which included development of solicitations for NYC and Long Island offshore wind power.
- Supervised system planning and constructability evaluations to identify statewide solar interconnection initiatives in support of NYSERDA solicitation process.
- Utility Transmission and Distribution Investment Working Group member for NYS 70/30 and 100/40 Renewables Integration.

June 2009-November 2017

Director, Electrical Engineering - Engineering Department

- Managed 15 staff engineers on all matters relating to operations, maintenance, field engineering, and design for the Authority's generation, substation, overhead and underground transmission and distribution systems.
- Supervise equipment application studies.
- Maintain system design guides and equipment standards.
- Sign and seal electrical equipment technical specifications and bid/construction design packages.
- Approve RFPs, respond to RFI's. Participate in bid technical evaluations and award recommendation process for major equipment procurement.
- Manage emergent operational issues throughout New York State.
- SME for all power transformer, substation component and cable system specifications and performance matters.
- Perform failure investigations and conduct equipment health, reliability and remaining life assessments.
- Establish equipment life extension and modernization policies and strategies.
- Supervise electrical facility ratings evaluations and maintenance of official ratings records.
- Supervise electric shock, arc-flash and personal protective grounding studies.
- Develop engineering policies to reflect OSHA requirements to promote worker safety. Establish standards for NYPA Safety Rule Book and Personal Protective Grounding Manual.
- SME responsible for NERC/NPCC Compliance Standards and Alert Responses, including Interconnection Design Criteria Document, Battery Maintenance Policy, Overhead Line Clearance Evaluation Program, Facility Ratings.
- Supervise management of all security system modifications and upgrades.
- Developed storm hardening and malicious attack prevention strategies to protect critical infrastructure.
- Developed substation hardening assessment and emergency power interconnection strategies for New York Metropolitan area, post Hurricane Sandy.
- Provided technical oversight for replacement of three (3) at-risk GSU transformers for a 500MW combined cycle facility.
- Provided technical oversight to modify a 150MW dual unit, simple cycle combustion turbine facility for black-start capability.
- Software modeling applications include Aspen, SKM, ETAP, EMTP, PSSE, Rate-Kit, and WinIGS.

Nov 2000-June 2009:

Senior Electrical Engineer II – Grade 6: Electrical Engineering

Senior Electrical Engineer I – Grade 5: Electrical Engineering

Technical Training Instructor – Grade 5 Technical Training

Senior Project Engineer I - Grade 5: Project Management

Senior Electrical Engineer I – Grade 5: Electrical Engineering

Electrical Engineer II – Grade 4: Electrical Engineering

- Lead Engineer and subject matter expert for numerous substation and generating plant upgrades and O&M equipment issues.
- Developed applications studies, specifications, and detailed designs for substation projects.
- Supported the diagnosis, repair and replacement of rotating machinery components, transmission class transformers, reactors, EHV SF6 and GIS circuit breakers, circuit switchers, surge arresters and HPFF and solid dielectric cable systems.
- Represented NYPA in numerous power cable failure root cause evaluations with EPRI and USi.
- Managed consultants for various support tasks.
- Completed arc-flash studies for downstate thermal generating stations.
- Supported installation of eleven (11) single and dual unit simple cycle combustion turbine generating plants in the City of New York.
- Operations Technical Training Instructor - Basic math and science, generation, and transmission theory.

- Project Engineer, Robert Moses Hydroelectric Plant Rehabilitation Project– Project Management Dept.
- Electrical/I&C First-Line Supervisor, Astoria 6 Generating Plant (temporary assignment).
- Mentor and supervisor for college internship and rotating engineer programs.
- Scored “Highly Proficient” on DDI Management Talent Assessment Exercise.

Turner Construction Company

Madison Avenue and 45th Street, New York, New York 10075

June 2000-October 2000

Electrical Engineer/Construction Superintendent

- Managed electrical contractors for construction of the Bear Stearns Office Building in midtown Manhattan.

New York Power Authority

Indian Point 3 Nuclear Power Plant, Buchanan, New York 10511

November 1997-June 2000:

Electrical Engineer II: Site Engineering

- Responsible Engineer for numerous modification projects for plant electrical/instrumentation and controls systems, involving complete design packages.

Sprint PCS

1 International Boulevard, Suite 800, Mahwah, N.J. 07495

June 1996-September 1997

Electrical Engineer

- Performed stand-by power studies and telephony signal processing layout for three wireless telephone switching facilities in NY, NJ and LI.

New York Power Authority

Indian Point 3 Nuclear Power Plant, Buchanan, New York 10511

May 1994-June 1996

Associate Electrical Engineer: System Engineering

- Monitored system performance, provided system analysis and troubleshooting solutions to support reliable operation of all plant electrical and control systems.

May 1992-May 1994

Assistant Electrical Engineer: Instrumentation and Controls

- Prepared and supervised test procedures and modifications for plant protective relaying, generation controls and process instrumentation systems.

HONORS, SPECIAL COURSES, PROFESSIONAL ASSOCIATIONS:

Registered New York State Professional Engineer, License No. 078530

Registered Arizona State Professional Engineer, License No. 82181

EE Honor Society; Dean's List; College student peer tutor

ABB Protective Relaying Theory and Applications Course

Power System Grounding and Transients Course - Sakis Meliopoulos

Sargent and Lundy Substation Engineering Course

Doble Power Factor and Capacitance Testing Technical Training Course

Disturbance Analysis Course - Mohamed Ibrahim

Waukesha Transformer Design Course

DDI Management Talent Assessment Exercise

NYP&A Engineering Department Mentor

NYP&A Supervisory Development Course

NYP&A Engineering Department Co-Employee of the 1st Quarter 2003

NYP&A Committees: Power Apparatus Committee, Chairman; Personal Protective Grounding Committee,

Chairman; Operations Committee; Reliability Standards Committee; Configuration Management Committee;

Union-Management Safety Committee; Union Apprentice Committee; Patent Committee

EPRI Power Delivery and Utilization Transmission and Substation Advisory Council Primary Representative

EPRI Substation Committee Member, Underground Transmission Task Force

EPRI Minimum Approach Distance Task Force

EPRI Transmission System Arc Flash Task Force

EPRI Technology Transfer Award: Transient Overvoltage Studies for Minimum Approach Distance

IEEE Power Engineering Society Senior Member

NATF Forum Engineering Department Representative