Energy Initiatives Group, LLC
Navigating in a Changing Energy Industry

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Summary:
As one of the founding members of EIG, John continually leverages his expertise and experience in many key aspects of electric power system projects and technologies. His past work includes assignments in development, engineering/design, construction, and operation of distribution, transmission, and generation projects as the industry has evolved through utility deregulation and establishment of competitive power markets. This work has included many diverse efforts such as state-of-the-art high voltage DC and controllable AC transmission technologies, renewable energy, and high-speed railroad electrification. John holds a Bachelor of Science degree in Electrical Engineering from Worcester Polytechnic Institute and a Master of Engineering in Electric Power Engineering degree from Rensselaer Polytechnic Institute. He is a Registered Professional Engineer in several states, a member of the National Association of Professional Engineers (NSPE), and a member of the Institute of Electrical and Electronics Engineers (IEEE) and its Power & Energy Society (PES).

Expertise:

- Large Scale Project Conceptualization and Development
- Utility and ISO/RTO Interconnection Process Management
- NYISO, ISO-NE, and PJM Processes and Transmission Systems
- Merchant Transmission Development, Interconnection, Commissioning, Market Integration
- Substation Engineering and Design; Electrical Equipment
- Traction Power, Railroad Electrification
- System Operations and Special Technical Issues
- Renewable Energy Project Development and Interconnection
- Expert Testimony

Experience:

- National Grid USA Companies (formerly New England Electric System), Distribution Field Engineer
- National Grid USA Companies (formerly New England Electric System), Electrical Stations Engineer
- PLM, Inc. (electric power consultancy), Principal Engineer
- JMEnergy, Inc., President and Founder
- Energy Initiatives Group, Principal and Founding Partner

Key Assignments:

- Linden VFT Merchant Transmission Project: Key technical consultant, interconnection management, and owner's engineer for development, design, construction, commissioning, market integration, and operation of a 315 MW controllable AC transmission tie between the northern New Jersey 230 kV and New York City 345 kV transmission networks.

- Linden Cogeneration Plant – Hurricane Sandy Restoration: Managed restoration of 345 kV Gas Insulated Switchgear and HPFF pipe-type cable transmission facilities, and engineered installation of temporary 4.16 kV auxiliary power facilities to allow restart of an 800 MW combined cycle generating plant following flooding from Hurricane Sandy in October, 2012.

- Renewable Energy Project Interconnections: John has or is assisting with the evaluation, site assessment, commissioning, and interconnection process management for many renewable generation projects. Representative experience includes:

  - Beech Ridge wind project, West Virginia – 200 MW (note: also provided expert testimony in WV PSC siting process)
  - Munnsville wind project, Madison, NY – 40 MW (assisted with commissioning, interconnection process management, system modeling, and SCADA communication)
  - Laurel Hill wind project, Jackson Township, PA – 70 MW
  - Related work on several projects includes assisting with collection system design and layout, conceptual designs of interconnection substations, assistance with modeling of wind turbine inverters for the purposes of short circuit and load flow modeling, and overall support of the regulatory and siting process.

- Amtrak Northend Electrification Project: Technical lead and interconnection study process manager for Amtrak's New Haven, CT – Boston, MA mainline railroad electrification project to prepare for high-speed Acela Express service. Coordinated four 115 kV supply point interconnections with three host utility companies to provide power for the 2 x 25 kV AC traction power system.

- Large Generating Plant Interconnection Management**:** Managed and coordinated the interconnection study process for many large generating plants planned or built in various ISO/RTO areas. Examples include:

  - Midlothian, TX Energy Project: 1,650 MW
  - Hays, TX Energy Project: 1,050 MW
  - Blackstone, MA Energy Project : 580 MW
  - Bellingham, MA Energy Project: 580 MW
  - Newark, NJ Energy Center, 700 MW
  - Bayonne Energy Center, 500 MW (NYC connection)

- Merchant Transmission Interconnection Development**:** Developed and managed interconnections and the interconnection study process for various planned merchant transmission projects, including:

- Parallel upgrades of the Blackwater, NM and Artesia, NM back-back HVDC ties between WECC, ERCOT, and SPP control areas
- Various controllable asynchronous interconnections between ERCOT and Mexico
- Various planned controllable interconnections between ERCOT and Entergy areas

- Support of Regulatory Filings: Lead technical contributor and strategic support related to various FERC proceedings

  - Challenge of solution-based DFAX calculations for cost allocation in the PJM 2013 and 2014 Regional Transmission Expansion Plan (RTEP) process
  - Protest resulting in award of additional CRIS (Capacity Resource Interconnection Service) in NYISO for the Linden VFT merchant transmission project

Leadership:

- Professional Engineer: Registered in Massachusetts, Rhode Island, and Connecticut
- Institute of Electrical and Electronic Engineers, Member
- National Association of Professional Engineers, Member
- Chair, NYISO Operating Committee, 2009-2010
- Chair, NYISO Transmission Planning Advisory Subcommittee, 2007-2008
- First Congregational Church of Holliston, MA – Co-Chairperson of Capital Campaign Advance Gift Committee; Member, Board of Deacons; Chair, Property Committee.

Education:

- Rensselaer Polytechnic Institute: Master of Engineering in Electric Power Engineering, 1987
- Worcester Polytechnic Institute: Bachelor of Science in Electrical Engineering, 1985