



Engineering For Future Power Grid

*Statement of Qualifications
For Renewable Developers, Owners &
Operator*

Our Values



Accessibility



Integrity



Accountability



Expertise



Collaboration

Zero-Emission Grid

Zero-Emission Grid, LLC, an employee-owned Texas-based limited liability company, provides powergrid-related technical and professional services to industry stakeholders including developers, asset owners and operators, independent power producers, transmission and distribution owners, grid investors, regulators, and grid operators. Zero-Emission Grid (ZEG) team consists of experienced electric power grid and markets specialists who came together from diverse yet complementary backgrounds to build a team underpinned by their values to pursue their passion. Our combined 50 years of hands-on experience in power grid consulting, electric utility, renewables, and transmission development, and being at the heart of some of the most challenging and prominent power grid projects in the nation, enable us to better understand our customers' perspectives and work hard to support them in their journey toward decarbonizing the power grid.

Our goal is to leverage our years of diverse experience, and the lessons learned, to revamp the engineering consulting practice and business model. Our years of experience have taught us that expertise without care is half-completed. We endeavor to bring expertise and care together for our customers to the extent that they truly feel us as an extension of their teams. We strive to make a difference in the electricity industry by truly partnering with industry stakeholders and our more sophisticated-than-ever customers. We believe achieving a zero-emission, yet reliable power grid, requires agility, creativity, and innovation to overcome the inherent inertia that the power grid industry, including its policies and infrastructures, has shown thus far as a response to the emerging changes.

This Statement of Qualifications has been put together to present you with our background, expertise, and experience. We eagerly look forward to engaging with you and adding value to your team. Should you have any questions or need additional information, please feel free to contact us.

Sincerely,

Mike Tabrizi, PhD, PE
Principal

Why Zero-Emission Grid —

Diverse technical background

Our team members collectively carry more than 50 years of experience in various modalities of the power grid industry including electric utilities, renewable development, and engineering consulting. This unique combination of experience and expertise enable us to better understand our customers' perspective and challenges

Regional Expertise

Even though the fundamentals of planning and operation of the electric power grid and markets are similar regardless of the geography, we believe regional expertise is of the utmost importance in achieving the best results within the least time and resources. Regional expertise ranging from in-depth knowledge of market design and interconnection procedures to understanding the stakeholder process and intimate familiarity with various key players is what makes us unique.

Innovation

In addition to our long history and demonstrable track record in our core regions, through years of experience, we have developed and utilized customized tools and processes tailored to the regional requirement to increase the efficiency, quality, and efficacy of our services. Some of our tools and platforms, which were initially designed for internal purposes, are now indeed being utilized by transmission owners and grid operators as part of their planning processes. We strive to create the best customer experience through our creative digital solutions.

Commercial and Technical Flexibility & Agility

We purposefully put together a lean team to support our customers with our core services and that's how we intend to continue to operate. This allows us to be flexible, efficient, and agile. More importantly, this allows us to pass the efficiency to our customers leading to a faster timeline, higher accuracy, and fewer resources. We are 100% employee-owned which enables us to be also commercially flexible and truly partner with our customers to ensure their success.





Leadership Team —

Mike Tabrizi, Ph.D. PE

Executive Principal

Dr. Tabrizi has 15 years of experience in the planning and operation of power grids and markets. Prior to Zero-Emission Grid, Mike spent 11 years with DNV Energy Systems where he had various technical and leadership roles including the head of DNV's North America Power System Advisory Division (Formerly known as GLPwrSolutions) overseeing power systems-related professional services to North American stakeholders including renewable developers and operators, grid planners and operators, and state agencies. Mike has served as the principal engineer and Subject Matter Expert in several nationally recognized offshore and onshore transmission and renewable projects including PJM Offshore Transmission State Agreement Approach, New York NYSEDA long-term offshore transmission planning, ERCOT CREZ, Integration of LP&L to ERCOT, ERCOT North to Houston Transmission Project, Integration of Rayburn Electric from SPP to ERCOT and Texas Lower Grand Valley Transmission Projects. Mike has supported the development, integration, financing, and construction of more than 15 GW of renewable and storage projects in various markets. Prior to leading the DNV's Power System Advisory practice, he has led and performed numerous transmission and generation-related analyses including contingency, stability, sub-transient, and power market nodal analyses in CAISO, PJM, ERCOT, NYISO, MISO, and ISONE service territories.

Dilan Novosad, PE

Executive Director - Grid Analytics

Dilan brings over 9 years of electric utility and consulting experience in T&D planning and power market economic assessments. Dilan is a Subject Matter Expert in market analytics, grid congestion, electromagnetic transient (EMT), switching, energization, and short-circuit analyses. Prior to Zero-Emission Grid, he worked for Lancium as a senior manager of transmission and interconnection in which he performed economic and reliability assessments to identify feasible interconnection locations for large-load customers and renewable projects. Prior to Lancium, he worked for DNV as a senior consultant working with renewable developers, as well as utilities, to perform various power system studies. During this engagement, he developed and evaluated future transmission plans for major system upgrades within ERCOT utilizing NERC, FERC, and regional transmission requirements and standards. Before DNV, he worked with Hunt Consolidated, a Transmission, and Distribution Service Provider, as a Transmission Planning Engineer on behalf of Sharyland Utilities. At Hunt, he supported renewable developers throughout the generation interconnection process. In addition, he worked on the submittal, and ultimate approval of several major transmission projects including the Panhandle Phase II development project, as well as various development projects in the Midland/Odessa region in Texas to accommodate large oil and gas customers.

Service Offering for Renewable Projects —

Diverse technical background

Performing historical and futuristic regional, state-wide, or site-specific injection/screening studies, generation/load deliverability, and nodal congestion/curtailment analyses using our internal proprietary tools to identify the ideal grid locations for interconnection of renewable projects

Generation Interconnection Application Filing, Design, and Modeling Support

Preparing generation interconnection applications for all North American electricity markets, including required documentation and attachments such as Single-Line Diagrams, model development (PSSE, PSLF, PSCAD, ASEP, etc.), model quality test reports, voltage, and fault ride-through tests (VRT/FRT) and any required model benchmarking. This service also includes post-filing technical support to any technical questions posed by ISO/RTO.

Independent Engineering Evaluations

Providing due diligence and third-party evaluation technical services as a support for M&A transactions or Nto review and challenge any study results as provided by other parties including the interconnection utility and/or ISO. This could include performing technical analyses to evaluate the location of the renewable project or to review and challenge the system impact studies and allocated upgrade costs as determined by the ISO/RTO

Electrical Studies

This includes electrical engineering analyses including, but not limited to, reactive power study as per applicable regional and/or FERC criteria, reactive compensation sizing, energization, switching (TOV, TRV, and SOV), harmonic, arc-flash, and surge arrestor sizing.

Model Validation, Verification, Benchmarking, and Testing

This includes conducting field testing for operational projects or working with OEMs to verify, validate or benchmark various models across various software platforms as required by different ISOs/RTOs or NERC (E.g., NERC MOD, ISONE model Benchmarking requirement, ERCOT MQT requirement, ERCOT Model Verification Requirements)

Facility and System Impact Studies

In some ISO/RTOs regions, the interconnection customer may have the option to perform the system impact study or hire an independent consultant to perform such studies for the benefit of interconnecting utility and/or ISO/RTO. At ZEG, we perform such system impact studies including load flow, deliverability, short circuit, dynamic stability, and sub-transient (e.g., Sub Synchronous Resonance SSR) studies.

Transmission Congestion Analysis

ZEG has developed and maintains its own proprietary transmission nodal model for various ISOs/RTOs. Our models have been tuned and benchmarked to ensure their consistency with the historical performance of the power market and to reflect the long-term outlook of the power markets. We perform Transmission Congestion analyses to support our customers to understand the transmission congestion and curtailment risks associated with their renewable projects.

Regulatory Support

Providing expert witness testimony in support of regulatory filings associated with distribution, transmission, and generation projects with utility commissions, municipalities, and other regulatory bodies.

Summary of Personnel Qualifications & Project Experience

ERCOT

Renewable Siting 50 Generation and Load siting analyses

Interconnection Application ~160 Generation Interconnection Applications, Modeling support, and Model Quality Tests

System Impact Studies More than 120 Full Interconnection Studies for 8 utilities in ERCOT (Steady State, Stability, Short Circuit, and SSR/SSCI).

Congestion & Curtailment Analyses 56 Production Cost Modeling and Congestion and Curtailment analyses using UPLAN for ERCOT for more than 10 development and renewable projects as part of their due diligence

Transmission Expansion Projects CREZ Transmission Development – South Plains and Panhandle Second Circuit and Synchronous Condensers projects, North – Houston Import Transmission Project, LP&L integration into ERCOT, REC Integration into ERCOT, LRGV Import transmission project, West Texas Permian Basin Transmission Project

PJM

Renewable Siting ~75 grid siting analyses for renewable developer customers all followed by Generation Interconnection Applications.

System Impact Study Generation Deliverability analysis for 11 solar and 4 wind projects for NRIS applications and underlying cost allocations.

Transmission Expansion NJ transmission planning to integrate 7.5 GW of offshore wind for PJM/BPU State Agreement Approach. Our analyses include Steady State, Generation Deliverability, and Grid Production Cost analysis to evaluate various onshore and offshore AC and DC solutions including various offshore transmission configurations.

Transmission Expansion FERC 1000 support for proposing competitive transmission solutions for two incumbent transmission developers.

- Three FERC 1000 Order submissions on behalf of our customers for reliability and economic public policy projects in PJM
- Five NERC MOD Testing and Verification for Solar and Wind Assets

ISONE

Performing Grid Siting and Transmission Planning for three (3) offshore developers including evaluation of various AC and DC options

- 15 Material Modification studies on behalf of our renewable customers
- 10 PSCAD model development efforts for renewable generation resources
- >16 PSCAD/PSSE model benchmarking analyses
- Develop/tune PSSE dynamic models

NYISO

- Long-term transmission planning for NYSERDA to integrate 9 GW of offshore wind including detailed reliability, deliverability, and economic assessment of NYISO Zone J and K under various study scenarios.
- FERC 1000 support for proposing competitive transmission solutions for four transmission developers.
- ~40 onshore and offshore renewable grid prospecting analyses followed by Generation Interconnection Applications and reviewing the system impact studies.

MISO

- ~15 Material Modification studies on behalf of our renewable customers including thermal/voltage assessment and deliverability analyses for both ERIS and NRIS resources.
- ~60 grid siting analyses for renewable developer customers
- 84 Generation Interconnection applications
- Annual NERC TPL analyses for Entergy for 3 years

SPP

- 22 grid siting and generation interconnection applications
- 5 DISIS post evaluations to review and challenge the SPP posted results for reliability violations and allocated upgraded costs.

CAISO

- ~250 grid siting and generation interconnection applications
- Annual NERC TPL analyses for PG&E for 4 years
- Feasibility analysis for HVDC Transmission based solutions for 2 offshore wind developers.

Puerto Rico & Hawaii

- ~20 Interconnection design and application including responding to all Minimum Technical Requirements

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