



# Engineering For Future Power Grid

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**Statement of Qualifications**  
*For Electric Utilities, ISOs,  
and RTOs*

## Our Values

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Accessibility



Integrity



Accountability



Expertise



Collaboration

## Zero-Emission Grid

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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

No BS i.e., full transparency.

We endeavor to complement our expertise with care which makes us a true partner to grid planners and operators.

### 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 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 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 personal 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 NYSERDA 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.



# Core Service Offering for Electric Utilities, ISOs, and RTOs

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## Stakeholder Process Support & Staff Augmentation

- » Representing electric utilities in various ISO/RTO technical working groups and stakeholder meetings, responding to ISO/RTO Requests for Information on behalf of Electric utilities.
- » Augmenting electric utility and ISO/RTO staff on an as-need basis to provide support for ad-hoc requests including, but not limited to, review of interconnection applications and technical reports, model development, power system studies, etc.

## Reliability and Economic-based Transmission Planning

- » Performing various technical analyses to support transmission planning and grid expansion including grid solution development, load flow contingency analyses, dynamic stability assessments, short circuit analyses, generation deliverability analyses, transmission congestion, production cost modeling, and benefit-cost analysis. Our team members have extensive and demonstrable experience in analyzing various grid technologies including AC solutions, DC technologies, FACTS devices, and Grid Enhancing Technologies. We have expertise and access to the following software tools: Siemens PTI PSS/E, PowerGEM TARA, UPLAN, PSCAD, PowerWorld, and ASPEN.

## Generation and Load Interconnection

- » Conducting various technical studies to evaluate generation and load interconnections including load flow contingency assessments, Critical Clearing Time, dynamic stability analyses, sub-transient (Sub Synchronous Oscillation, Sub Synchronous Control Interaction, and Sub Synchronous Resonance) analyses, and short-circuit assessments. We have expertise and access to the following software tools: Siemens PTI PSS/E, PowerGEM TARA, UPLAN, PSCAD, PowerWorld, and ASPEN

## NERC Compliance-Related Studies

- » Conducting technical assessment in support of compliance with NERC standards including TPL, VAR, CIP, PRC, and MOD. We have developed several in-house automation tools which enable us to perform large-scale analysis in a much shorter time with increased accuracy. Some of our automation tools are currently being used by other electric utilities such as the Power System Damping Analysis tool which was developed to meet NERC TPL 001-5 grid stability requirements.

## 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 arrester sizing.

## 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

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## Hawaii and the Caribbean Islands

- » Grid modeling in various software including PSS/E, Milsoft, CYME and Synergie Electric
- » Short-term and long-term grid reliability and economic planning including load flow, short circuit, dynamic stability, and sub-transient studies
- » Compliance and system protection adequacy evaluations

## ERCOT

- » Reliability and economic grid planning and development of Transmission Solutions: Texas CREZ Transmission Development, LRGV, South Plains and Panhandle Second Circuit and Synchronous Condensers projects, North to Houston Import Transmission Project, LP&L integration into ERCOT, REC Integration into ERCOT, West Texas Permian Basin, Bearkat Region Transmission
- » More than 120 Full Interconnection Studies
- » 56 Production Cost Modeling and Congestion and Curtailment analyses
- » 42 Generation and Load siting analyses
- » ~160 Generation Interconnection Applications, Modeling support, and Model Quality Tests
- » NERC TPL and CIP analyses for 7 TDSPs in ERCOT for 8 years

## PJM

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

## 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

## MISO

- » ~100 grid siting and generation interconnection applications
- » System Impact Studies for 32 Generation Interconnection Requests using PSS/E, PSLF, and ASPEN
- » 11 Production Cost Modeling
- » Annual NERC TPL analyses 2 utilities for over 4 years.
- » DC Transmission Development for offshore wind developer

## 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.

## ISONE

- » Distribution Planning and Protection analysis including evaluation of Non-Wire Alternative solutions.
- » 5 Material Modification studies on behalf of our renewable customers
- » 10 PSCAD model development efforts for renewable generation resources
- » ~5 PSCAD/PSSE model benchmarking analyses
- » Develop/tune PSSE dynamic models.

## NYISO

- » Long-term transmission planning for NYISERDA to integrate 9 GW of offshore wind including detailed reliability, deliverability, and economic assessment of NYISO Zone J and K under various study scenarios.
- » ~40 renewable grid siting analyses followed by Generation Interconnection Applications

## Our Contact information

✉ [info@zeroemissiongrid.com](mailto:info@zeroemissiongrid.com)

📍 17304 Preston Rd, Suite  
800-213, Dallas TX 75252

🌐 [www.zeroemissiongrid.com](http://www.zeroemissiongrid.com)

