



## STATEMENT OF QUALIFICATIONS

This document presents a general overview of the qualifications and experience of Potencia Partners, which offers a full complement of engineering, design review, plant audits, FAT, and SAT testing services. Our staff is comprised of professional engineers, technicians, PMs and subject matter experts with extensive and varied experience. We would welcome the opportunity to discuss and assist you with your electric energy projects, engineering, operating & maintenance challenges.



## CORPORATE INTRODUCTION

Potencia Partners is a multi-discipline professional services firm in the electrical power energy sectors offering technical and financial services throughout the US, Mexico, Canada, and internationally.

The primary services offered include advanced and routine engineering services and consulting to power plants, T&D, renewables, industrial, and OEMs. Typical client types for technical services include industrial, contractors, developers, and OEM companies.

The multi-discipline activities of Potencia Partners provide a significant advantage in project development from inception through final stages. Potencia Partners leadership and senior SMEs have a very strong relation with OEMs in North America, India, and China and will support clients to establish relations and secure orders with new reliable resources for long-lead equipment.

## TECHNICAL SERVICES

We offer comprehensive support, including manufacturing process inspections, proposal process improvements, and competitive reviews. Our services extend to product development, substation and transformer engineering, design reviews, electrical, mechanical, structural, and seismic analysis. We also provide field and factory test witnessing, plant audits, design and manufacturing technology reviews, and quality assurance for both distribution and transmission electrical assets including power transformers, underground cables, Air and GIS switchgear, and overhead line equipment. Additionally, we assist with logistics, project management, standards certification, software development, and transformer design optimization. Our goal is to enhance efficiency and ensure the highest standards in transformer technology and service. Potencia Partners subject matter experts are capable of performing root cause failure analysis and investigations on LV, MV, and HV assets.

### TRANSFORMER, GIS, HV CABLES, GAS & HYDRO GENERATORS, PROPOSAL SERVICES

- Manufacturing Process Inspection
- Technical and Commercial Specification and Proposal Process Improvement
- Developing Test Plans and Procedures for FAT/SAT
- Proposal Competitive Review and OEM Negotiations
- Product Development Services and Support for OEM and Service Companies

### TRANSFORMER ENGINEERING

- Design Review for Power Transformers, including winding configuration, clearances, core configuration, winding processing, thermal design, audible noise, transients, electric field distribution, magnetic field distribution, DETC, OLTC, No-load and load losses, assembly, core clamp requirement, vapor phase & drying parameters, tanking, FAT plan, and transportation.
- Standardization and automation for 3D model Tank Rupture Analysis
- Forensics and Failure Analysis for Transformer Failure (Mechanical & Electrical)
- Factory production, inspection, and test witnessing
- Site acceptance testing, inspection, witnessing, troubleshooting,
- Seismic analysis IEEE 693 by Registered P.E.
- Static analysis and dynamic analysis (Rail transportation analysis) IEEE C57.150 & CIGRE 673

## UNDERGROUND CABLE ENGINEERING & SERVICES

- Long-term pre-qualification and qualification cable testing (ITP design, witness, review)
- Design Review for MV, HV underground, and submarine cables, including cable voltage rating, cable construction, conductor, insulation, fiber optic, semiconductors, metallic shield, armor, and jacket requirement
- Cable terminations and cable joints specification and tests (design, type, routine)
- Grounding and bonding specification and studies
- DTS, DAS, and PD Monitoring systems
- Perform or witness cable commissioning tests, including AC Hipot & PD, TDR, OTDR,

## OVERHEAD LINE & SUBSTATION ENGINEERING SERVICES

- Design review of HV and MV overhead lines, and substation insulators & buses including audible noise, EMF, RIV, Electric and magnetic field studies, stray & induced voltage studies
- Power system studies, including load forecast, load flow, short circuit, and arc flash studies
- Insulation coordination, and protection coordination studies
- Grounding studies and testing
- FAT and SAT witnesses for HV equipment such as HV insulators 7 surge arresters, overhead line hardware, overhead line conductors

## ROOT CAUSE FAILURE SERVICES

- 3<sup>rd</sup> party independent root cause failure investigation, testing, and analysis
- Onsite inspection, visual inspection, data collection and interview
- Work with accredited laboratories to perform material, chemical, mechanical, and electrical component testing
- Post-failure analysis to determine the root cause of failure of generation, transmission, and distribution assets
- Determine the “Mode of Failure”, “Apparent Cause”, and “Root Cause” of failures
- Identify potential causes and determine the most probable cause by evidence analysis
- Develop RCA ITP, questionnaires, procedures, and flowcharts for systematic RCA

## PLANT AUDITS & RECOMMENDATIONS

- Design and Manufacturing Technology Review
- Suppliers and Purchasing Process
- Pricing and Proposal Process Review
- Project Management Review
- Quality Assurance Review
- Logistics and Field Service

## PRODUCT CERTIFICATION & HOMOLOGATION

- Standards Certification for UL, IEC, IEEE, CSA
- Type Test Planning and Witnessing Recertification requirements

## SOFTWARE IMPLEMENTATION OR DEVELOPMENT

- HV Assets, Including Transformer Design Optimization Software
- CRM Software Configuration
- Project Scheduling & Management Software Configuration

## ASSET MANAGEMENT

- Fleet Condition Assessment for power utilities, renewable energy, oil & gas, and industrial plants & factories
- Health Index and risk based asset condition analysis
- Condition Assessment of service-aged electrical equipment such as power cables, distribution transformers, overhead lines, and underground assets
- Asset Analytics for critical infrastructure
- Develop a maintenance strategy to optimize your maintenance and repair costs and downtime while maintaining high reliability considering Reliability Centered Maintenance (RCM) development, Reliability, Availability, and Maintainability analysis (RAM), and spare strategy optimization

## TEST BAY AND LABORATORY DESIGN & SETUP

- Distribution and power transformer test bay design, layout, grounding, specification of equipment, test equipment supplier and purchasing process support, installation, and commissioning
- MV and HV Cable testing setups, including type test and routine tests
- Upgrading AC Hipot , Partial discharge, Induced voltage, Temperature-rise, Load-cycling, Impulse test, Switching impulse test, and other high-voltage test setups
- HVAC and HVDC lab layout design, specification, and equipment support

## DISASTER RESPONSE SERVICES & MITIGATION

- Power systems critical facilities disaster response.
- Fault & failure temporary service response and emergency equipment rental.
- Root cause and repair supervision services.
- Onsite inspection of failed equipment by subject matter experts.
- Develop post-disaster power and safety evaluation guidance.
- Wildfire management, mitigation, and management techniques.
- Restoration planning, re-energization planning, and reconfiguration of the power system.

## REPRESENTATIVE PROJECTS

- Transformer FAT witness
- Transformer design review
- Onsite SAT commissioning of 30 MVA/50MVA 230kV/13.8kV substation transformers, Missouri, 2024
- Transformer Factory upgrades and expansion consulting, including machinery, equipment, test bay design, and suppliers and purchasing process for multiple factories in California and Texas, 2024-2025

## MEET THE TEAM



**Marcus Turner**  
Chief Executive Officer  
**Years of Experience: 35**

Marcus is a highly respected figure in the power generation and electricity transmission and distribution sectors, with a career spanning over three decades. As CEO of a leading systems supplier to gas turbine manufacturers, he expanded the company's presence to over 400 power plants worldwide. Following the company's acquisition, Marcus served as CMO and head of Global Business Development for the public company.

He later founded Covested International, now Potencia Partners, focusing on technical consulting and strategic growth transformations for electricity transmission and distribution companies. Under his leadership, Potencia Partners excels in market penetration, addressing data center demand, renewable energy, and grid expansion.

Currently, Marcus is the CEO of Potencia, where he personally leads strategies and business development for several companies, and serves on multiple boards. He resides in Orlando, Florida, and spends part of his time in Thailand overseeing family businesses with his adult children.

### Recent Achievements:

- Advised and led an electrical equipment supplier into new untapped OEM and Utility sectors, as well as Data centers, facilitating 12x growth and establishing the company as the leader in the US within 7 years.
- Developed large long-term relationships with Siemens, Facebook/Meta, Intel, Google, Eaton, and others.
- Advised global transformer manufacturers on US market entry.
- Provided startup and business development advisory for a protection and control products company.
- Played a key role in the acquisition of a \$400m transformer plant with Private Equity.



**Andrew Lawless**  
Chief Technology Officer  
**Years of Experience: 30**

Andrew is a technical executive and international entrepreneur who has worked in the US, Canada and Mexico on high and medium voltage apparatus and transmission projects with a demonstrated record of managing business development, technology, products, projects, marketing, and field installations.

By trade, Andrew is a high-voltage engineer experienced in technology development, M&A, Private Equity, strategic marketing, business development, and government relations in the fields of electrical generation, transmission, and distribution. He has shown strategic leadership in these areas for large OEM's, the Department of Energy, the Department of Homeland Security, the Department of Defense as well as standard setting and regulating bodies.

Previous employers include ABB, Siemens, VA Tech, Schneider, and Rolls-Royce and held positions from production to executive. He has also worked with many international companies as a consultant or representative, including Tubos Trans Electric (Argentina), Asta (Austria), Hyundai (S. Korea), TBEA (India & China), DAQO (China), Iljin (S. Korea), Tamini (Italy), Elsewedy (Egypt), InterMountain Electronics (USA), and many others. Andrew has a specialty in power transformers but has also worked with a wide range of products and markets throughout North America that extends to distribution transformers, medium and high voltage switchgear, substations, transmission lines, power plants, and renewable energy.

Andrew is a multilingual leader with the skills to build highly effective, multidisciplinary teams with a decade or more each working in the US, Canada, and Mexico. He combines expertise and entrepreneurship to create profitable ventures, expanding his success across diverse cultures and unlocking global opportunities inaccessible to most companies.



**Ali Naderian**  
Director- HV Services  
*Years of Experience: 20*

Ali Naderian is a highly accomplished professional with an extensive background in high-voltage electrical engineering.

With over 20 years of experience, Ali Naderian is a seasoned Professional Engineer specializing in high- and medium-voltage power transformers, underground cables, switchgear, and insulator testing and diagnostics. He was a project manager at Kinectrics Inc. (Formerly Ontario Hydro Research) for 9 years, working on diagnostics of power transformers, high-voltage cables, and outdoor insulators from 2007 to 2016.

He was a partner and director of HV services at METSCO Energy Solutions for 8 years. His work and research interests include HV Asset Condition Assessment, PD measurements, dielectric frequency response, and root cause failure analysis. His contributions to the industry are evident through his leadership role as the chair of IEEE C57.161 guide for DFR testing and IEEE C57.113 guide for PD measurement of power transformers.

As a senior member of IEEE, Ali has established himself as a respected figure within the engineering community. Additionally, he is a co-author of the EPRI Underground Distribution Reference Book, further solidifying his expertise in the field. An extensive list of his scholarly contributions can be found on his Google Scholar profile.



**Alfonso Garcia**  
Principal SME, High Voltage Testing  
*Years of Experience: 35*

Alfonso Garcia is a highly recognized expert in high voltage and high-power test laboratories, power transformer testing engineering, electrical research, analysis, and solution of problems related to large and medium power transformers.

He has extensive experience in quality management related to test laboratories with a focus on continuous improvement in all aspects of laboratory performance while offering practical solutions in line with the needs and expectations of manufacturing operations.

Alfonso earned his B.Sc. and M.Sc. degrees in Electrical Engineering from the Instituto Politécnico Nacional of Mexico, during which he was an electrical equipment researcher at the Electrical Research Institute of Mexico, working on the assessment and design of distribution class powers and current limiting fuses and the impact of lightning induced transients on poletop distribution transformers.

He continued to work at the Electrical Research Institute of Mexico and then at Siemens S.A. de C.V. transformer plant in Guanajuato, Mexico ultimately becoming the Chief of the Test Laboratory. In this capacity, Alfonso developed the laboratory to handle all testing requirements according to ISO 9000 and the NMX-ANCE, ANSI/IEEE, and CSA standards. He was instrumental in obtaining and maintaining accreditation of the test lab according to the national standard (NMX-EC-17025-IMNC) and international standard (ISO/IEC 17025).



**Enji Tu**  
 Director- Rotating Machines  
*Years of Experience: 20*



**Alberto Dumas**  
 Director- Finances  
*Years of Experience: 15*

As a second generation major influencer in the China power industry, Enji co-founded and is now the General Manager of Shanghai Circuit Power Technology Services to service the growing needs of China’s power production market. Ten years earlier, she founded Shanghai Encheng, as an early pioneer of reform in China's Gas Turbine power market. As an independent consultant to many of China's major power investors, Enji has led her teams to introduce numerous overseas gas turbine related technologies into the China market.

One notable introduction is the 2014 completion of a Joint Venture between Sulzer Rotating Equipment Services, a world leading independent service provider for gas turbines, and its Chinese partner Huadian Group, one of China's largest gas turbine power producers. Enji has now partnered with Potencia to bridge China investors and power producers with the western world power market service providers, and developers.

Educated in Economics and Finance at the University of Texas, Mandarin Chinese at Shanghai Jiatong University, and Private Equity at London Business School, brings diverse and cross-cultural experience to the Latin American market and Potencia Partners.

He spent five years in China and was a former advisor to the Minister of Finance in Honduras, specializing in debt structuring for public infrastructure projects.

He is the Pronoia Partner’s financial director and General Manager of Central American Capital Partners, focusing on project finance for infrastructure, capital raising, and debt structuring for renewable and thermal energy projects.



Potencia Partners works with contract engineers and technicians on a project basis for short-term and long-term projects.

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