ENGINEERING SOLUTIONS
Capitalize on New Opportunities to Create a Competitive Edge

The power industry is undergoing significant changes: growing demand, the need for cleaner and sustainable energy, the digital transformation of energy networks, and an increased focus on improving the efficiency of operations.

Players that can adapt quickly—ahead of the competition—may grow their market leadership. But doing so is highly dependent on engineering, and finding and managing top engineering talent can be difficult and expensive.

QuEST Global can help. QuEST delivers comprehensive engineering services across the value chain that enable today’s power companies to evolve and capitalize on new opportunities to gain a powerful competitive advantage.

INDUSTRY CHALLENGES

Emergence of Digital Technologies

Digital grids create revenue opportunities but also require automation and connectivity

Evolving Market Conditions

Growing demand for cleaner and sustainable energy increases the need for efficiency improvements

Stringent Compliance Requirements

Regulations requiring carbon emission reductions strain already-thin product margins
Proven Experience, Exceptional Results

With more than two decades of success providing integrated solutions for power generation, transmission, and distribution, QuEST understands the engineering challenges faced by our customers. We begin each engagement with a comprehensive assessment to evaluate what customers want to accomplish and their specific priorities. Our team then makes recommendations for which engineering activities can be outsourced. We strive to provide the best business model to balance engineering capabilities, capacity, and cost, and we constantly fine-tune our approach to deliver maximum value.

LOCAL & GLOBAL SUPPORT

We have a global staff with local nationals invested in building long-term relationships, functioning as an extension of your team.

FLEXIBLE & TAILORED SOLUTIONS

Our unique hybrid managed services model allows us to tailor solutions to custom-fit each customer’s objectives and overcome challenges in the power industry.
DIGITAL TRANSFORMATION
Accelerate smart grid deployments with real-time control over interoperable devices, asset planning, performance management, and operations.

ENGINEERING ANALYTICS
Leverage turnkey analytics backed by infrastructure set-up, network selection, device configuration, end-user training, and support.

MECHANICAL DESIGN AND SIMULATION
Improve the performance of turbines, generators, and renewable energy systems such as onshore and offshore wind.

Our Focus: Your Success
We are completely focused on accelerating next-generation product development programs, delivering significant productivity improvements, and reducing the cost to sustain established products and infrastructure. Our ultimate goal is to contribute to your ongoing success as a trusted long-term partner.
MANUFACTURING ENGINEERING
Implement process improvements to optimize manufacturing costs and improve quality through detailed processes and documentation.

SOFTWARE AND ELECTRONICS PRODUCT ENGINEERING
Streamline system design, development, and lifecycle enhancements with extensive verification and validation.

CONTROL SYSTEM ENGINEERING
Design, deploy, and retrofit power systems with advanced hardware and software engineering, testing, and commissioning.

MANUFACTURING ENGINEERING
Implement process improvements to optimize manufacturing costs and improve quality through detailed processes and documentation.

SUPPLY CHAIN MANAGEMENT
Monitor supply chain processes and improve how they are managed to lower system costs and increase quality.

AFTERMARKET SOLUTIONS
Reduce drag on internal resources while applying productivity and process improvements that ensure optimal system performance.
Recognized Expertise

QuEST possesses the knowledge, experience, and expertise needed to deliver new advantages—and business results—in the power industry today. Our domain experience, world-class engineering services, and productivity-focused solutions enable us to execute the most complex requirements, transform assets, and make every project a success.
Digital Transformation:
Gas and Electricity Consumption Reduced by 15%

A major U.S. utility company partnered with QuEST to reduce the energy usage of one of the world’s premier museums. After conducting a site survey and aggregating energy usage data at the museum’s main building, QuEST helped the utility meet the customer’s needs by implementing an energy-efficient temperature and humidity control solution, which was integrated with the museum’s HVAC system. The solution optimizes energy consumption by leveraging an IoT network to access and analyze 1.3 terabytes of historical data. The applied machine learning algorithms designed by QuEST mine the data to predict the optimal set points for dehumidification, reheating, and rehumidification. The museum can now optimize its energy consumption.

PROVEN RESULTS

15% REDUCTION IN ELECTRICITY AND GAS CONSUMPTION

NATURAL GAS SAVINGS OF $70,000 PER YEAR

ELECTRICITY SAVINGS OF $280,000 PER YEAR

Mechanical Design and Simulation:
Propane Fuel System Design Reduces BTU Costs by 50%

A U.S.-based OEM partnered with QuEST to develop a fuel system to support burning liquefied propane and heavy-gas fuel during startup, runtime, and shut down. QuEST designed the gas system based on flow parameters and component selection with fuel variants. Key components include heat-tracing and blanketing systems to maintain fuel temperature and a compressor discharge pressure (CDP) bleed-piping system. QuEST also developed field modification instructions and a mechanical design package that includes CAD models, engineering drawings, material data, interface details, and vendor part specifications. To ensure system performance, QuEST conducted pipe stress analysis and computational fluid dynamics (CFD) flow analysis and confirmed the system adheres to power industry regulations.

PROVEN RESULTS

50% REDUCTION IN COST PER BTU

AVOIDS OVERSPEND SHUTDOWNS

ACCOMMODATES UNIT DESIGN VARIATIONS AND ALLOWS FOR RETROFITTING
QuEST: Your Engineering Partner of Choice

Strategic engineering outsourcing in the power industry is vital to reduce cycle times and costs while freeing your organization to focus on delivering the full range of services that your customers demand. As a trusted global partner for many of the leading OEMs and utility companies, QuEST offers two decades of proven value, comprehensive engineering services across the power industry value chain, and an unwavering commitment to helping our customers succeed.

The QuEST Difference

QuEST is the only engineering services and solutions partner that possesses comprehensive manufacturing expertise, fluency in enabling technologies, and an in-depth understanding of its customers and their businesses. QuEST enables companies in industries such as aerospace, energy, healthcare, technology, and transportation to conquer challenges and seize opportunities to increase profitability and transform markets with products and services that enhance quality, improve efficiency, and reduce costs.

ACCOUNTABLE
We commit to what we deliver, and deliver what we commit. We are quality-conscious, process-oriented, and strive for continuous improvement.

CHANGE CHAMPIONS
We are change champions, not observers. We believe that every change is an opportunity to learn, contribute, and improve.

COLLABORATORS
Our team collaborates across geographies, organizations, and cultures to do more for you.

FOCUSED ON YOU
We are passionate about exceeding your expectations at all times and in everything we do.

Talk to Us Today

To learn how QuEST Global’s transformative engineering solutions can help you succeed, contact salesenquiries@quest-global.com or visit quest-global.com

QuEST Global is a trusted engineering services and solutions partner to many of the world’s most recognized Fortune 500 brands in aerospace and defense, medical device, power, and transportation. For more than 20 years, QuEST has been a trusted partner providing comprehensive support across the complete engineering lifecycle to help our customers improve efficiency, increase quality, create new products, and open new markets. Through a collaborative and customized approach, QuEST enables its customers to manage traditional engineering requirements as well as the convergence of digital and mechanical technology to help them create safe, dependable, and high-quality products and services.