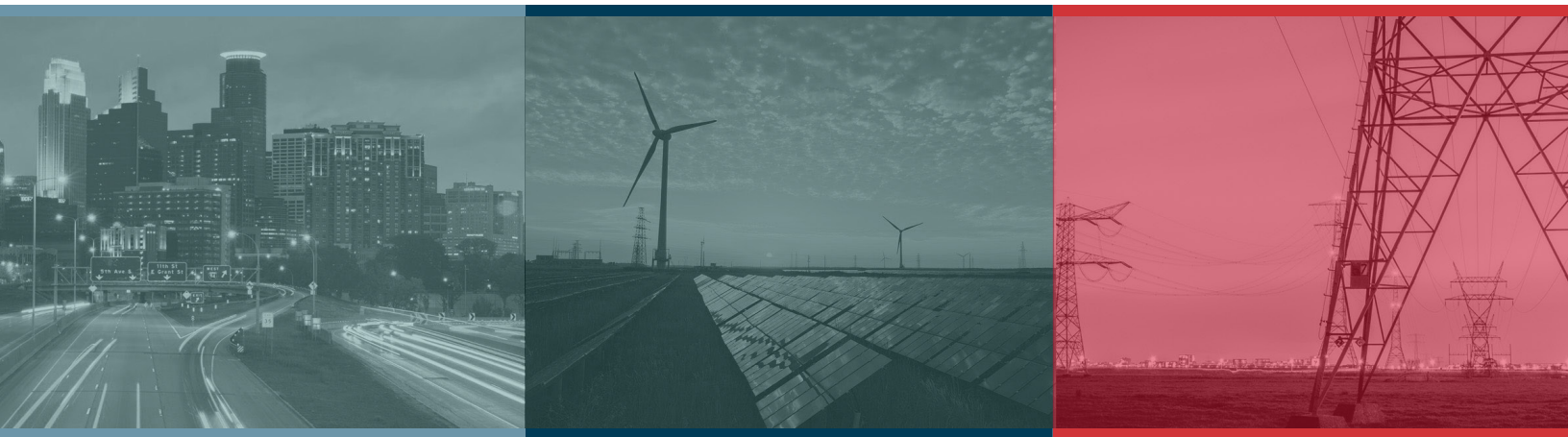




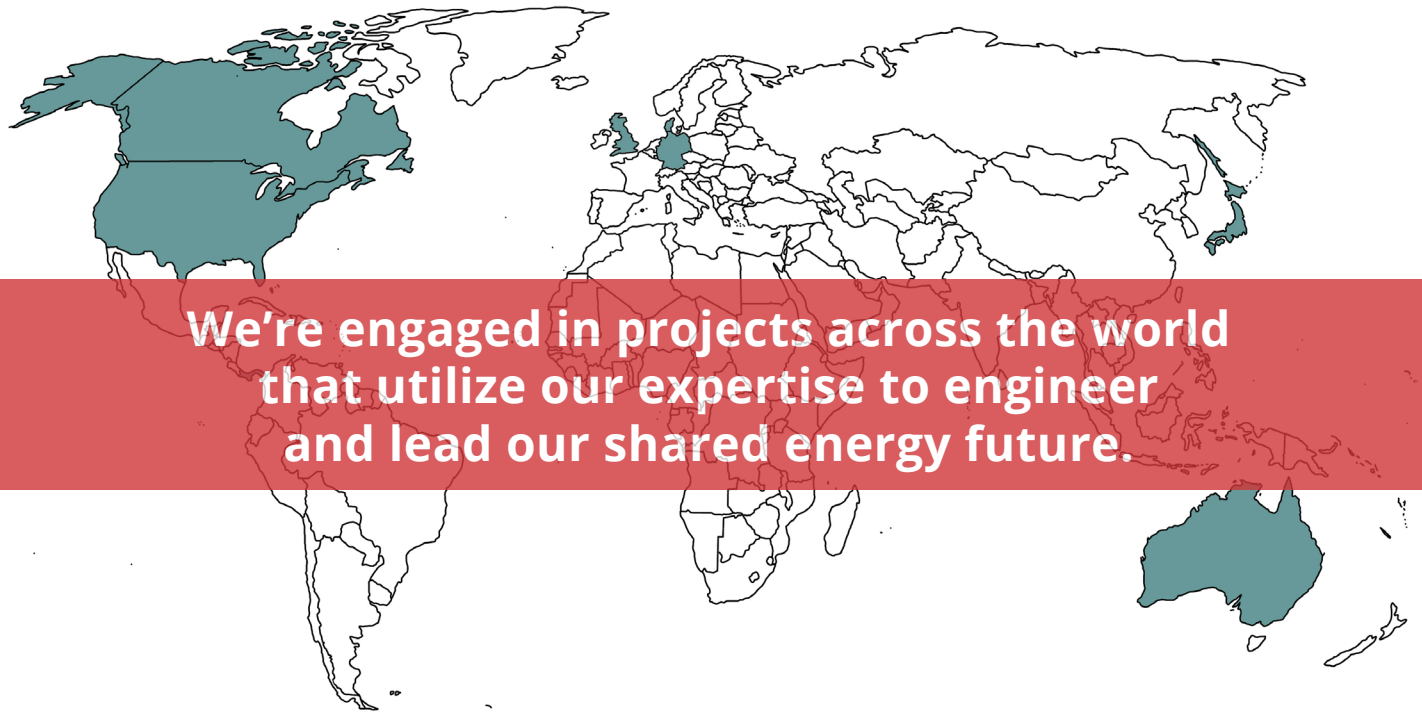
ADVANCING A CLEANER, SMARTER ENERGY SYSTEM OF THE FUTURE



In a time of aging infrastructure, regulatory changes and an increasing array of distributed energy resources, EnerNex has the know-how to help move organizations forward.

EnerNex's team of experienced power engineers, control systems professionals, program managers, and regulatory and business experts provides our clients with the ability to address the most complex engineering, system development, and implementation issues emerging today.

We're at the forefront of addressing integration issues for distributed energy resources and we're leading efforts to apply the technologies that improve the engineering and economic impact of the electric grid's transformation on transmission network operations and utility distribution systems.



**We're engaged in projects across the world
that utilize our expertise to engineer
and lead our shared energy future.**



Electric Energy System Engineering and Analysis

Helping our clients better understand their systems to improve performance of the grid.



NYISO Controlled System Separation Study for Bulk Power Systems

The project investigated the feasibility of separating bulk power systems in a controlled manner for the purpose of maintaining stability in individual electric islands. The outcomes of the project included construction of time-domain indicators for system instability, and coordination of under-frequency load shedding and out-of-step tripping protection with the controlled separation scheme.



**Nebraska Public
Power District**

Always there when you need us

Nebraska Public Power District's (NPPD) Line Energization Study

EnerNex developed an EMTP-RV model of a proposed 345 kV 38.9 mile overhead transmission line and evaluated the transient overvoltages associated with the line energization, and line re-energization (reclosing with trapped charges) to ensure that the maximum overvoltage transient were appropriate.



Renewable and Distributed Resource Integration and Interconnection

Helping utilities and others deal with the challenges of intermittent resources.

Eastern Wind Integration and Transmission Study

EnerNex led the EWITS, a unique study that began by modeling wind resources in a large part of the Eastern Interconnection and finished by conducting a detailed wind integration study and top-down transmission analysis. The study differed from others as it examined wind integration issues across a large geographic area and considered conceptual transmission overlays.

California Solar Initiative (CSI) Improving Economics of Solar Power through Analysis, Forecasting, and Dynamic System Modeling

EnerNex investigated the impact of high-PV penetration on distribution feeders. The project utilized cloud data as an input into distribution feeder impact, which facilitated highly realistic simulations in which solar irradiance levels were resolved in time and space. The sophisticated models are necessary for realistic simulation results.

OUR CORE ENGINEERING AND CONSULTING SERVICES...



Electric Energy
System
Engineering and
Analysis



Renewable
and Distributed
Resource
Integration and
Interconnection



Grid Technology
Consulting



Grid
Modernization



Electric Industry
Evolution



Grid Technology Consulting

Helping our clients define, specify, evaluate, select and deploy solutions that better manage, monitor, optimize and protect the grid.



Oncor Electric Delivery Company, Security Architect

EnerNex is supporting Oncor's security architecture and NERC CIP compliance efforts related to grid management and field deployed and operational assets within the Transmission and Distribution areas.

New Product Due Diligence

Engaged by a third party on behalf of a Fortune 50 manufacturing company to review a set of new products for the underground distribution market. The due diligence completed its first phase, with a number of planned marketing and engineering changes to the product, as well as a new set of potential targets for the initial trials and pilots.



Grid Modernization

Helping our clients implement and integrate technologies and processes that are aligned with tomorrow's utility.



SOUTHERN CALIFORNIA
EDISON

An EDISON INTERNATIONAL® Company

Southern California Edison (SCE) AMI Consulting Systems Engineer

EnerNex captured requirements, assessed technology, analyzed requirements and develop architecture for the initial stages of advanced metering infrastructure (AMI). The resulting use cases for AMI are widely recognized across the industry. EnerNex assisted SCE with developing business requirements, examining feasibility of technologies, and developing the cost/benefit analysis to inform the AMI deployment application to the California Public Utilities Commission, and continues to be involved in various SCE grid modernization initiatives, including evaluation of distribution system state estimation and requirements development for a grid management system.

**Hawaiian
Electric**



HECO Grid Modernization Strategy (GMS)

EnerNex worked with HECO to develop Modernizing Hawaii's Grid For Our Customers, which outlined distribution system upgrades to enable the combination of DER and grid-scale resources necessary to achieve the State goal of 100% renewable energy. EnerNex remains engaged with HECO to begin implementation of that strategy and develop the framework for an integrated grid planning process.



Electric Industry Evolution

Helping our clients prepare and execute plans to optimize their business.



Snohomish County Public Utility District AMI Business Case and Deployment Plan Project

EnerNex assisted this public power utility in developing a business case to support a planned investment in AMI and related AMI-enabled applications. EnerNex assisted the utility by performing a current state readiness assessment and by identifying the key AMI-enabled applications that would be part of the overall investment.



The United Illuminating Company

United Illuminating Microgrid Analysis

EnerNex developed business cases for the microgrids and performed cost benefit analyses for generation options including combined heat and power (CHP), natural gas and propane fuels. EnerNex calculated the total electric load and wrote the generator specifications for multiple community microgrids.

We're experts at solving the electric power industry challenges of today and tomorrow. Our experienced team offers unequalled expertise in driving innovation, analyzing grid impacts, and supporting the development and application of emerging electric power technologies.

ADVANCING OUR SHARED ENERGY FUTURE

EnerNex's focus is to aid in the understanding and elucidation of electric power related issues, as well as the development of technology and expertise that will improve the operation and reliability of the electric power system through the 21st century and beyond.

We're engaged in projects across the world that utilize our expertise to engineer and lead our shared energy future.

Who We Serve

- Utilities and Large Energy Consumers
- Government Agencies and Research Organizations
- Industry Solution Providers & OEMs
- Project Development Firms



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INFO@ENERNEX.COM | 865.218.4600 | KNOXVILLE TN



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