

Renewable Resources Energy



gai consultants

A photograph of three offshore wind turbines in the ocean at sunset. The sky is a mix of orange, yellow, and purple, and the water is a deep blue. A dark blue semi-transparent box is overlaid on the right side of the image.

Transforming
Ideas for the
Energy We Use

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Renewable Resources

Focused on Your Goals

Since 2008, wind power capacity has almost tripled in the U.S. to 60 gigawatts, or enough energy to power 15 million homes every year. With continued technology improvements and policy support, the Department of Energy estimates that as much as 20% of projected U.S. electricity demand could be met by wind power by 2030. GAI is participating in this growth by providing comprehensive, responsive, and professional siting, design, and permitting services for wind, solar, bio-mass, and hydro projects. Our services include mapping; modeling; permitting; environmental assessment and compliance; civil, electrical, mechanical, and structural design; and construction monitoring.

As demand for renewable energy continues to grow, GAI is dedicated to helping you meet your needs and goals. Your goals are important. And if it's important to you, it's important to us.





We find complete solutions.

What Distinguishes GAI

- Having worked in the renewable energy industry since its reemergence—the history, knowledge, and expertise that clients trust to make their projects a success
- The understanding that clients need to act quickly when an opportunity becomes a project, and the response that gets projects moving as soon as possible
- Experience in electric power generation and transmission that is an advantage—we understand the required permitting protocols and established industry practices
- Dedicated technical teams that work seamlessly to support every project from planning through operation
- An employee-owned company truly committed to improving clients' competitiveness by offering consistent technical quality, responsiveness, and management over long-term relationships

Renewable Resources Services

Project Siting and GIS Services

- Project planning, mapping, and data collection
- Property data development
- Visual simulations
- ALTA/ACSM Surveys
- Environmental due diligence support
- Cultural resource management
- Environmental impact studies
- Geotechnical studies
- Wind resources surveys
- Solar resources surveys
- Endangered species
- Interconnect analysis
- Survey

Environmental Permitting

- NEPA-Section 404/401-NPDES
- Rare, threatened, and endangered species consultations
- Avian consultation
- Phase I environmental assessments
- Cultural resources investigations and clearances
- Stream crossing permitting

- Visual analysis
- Noise impact analysis
- Public outreach services
- Building surveys

Transmission Line and Substation Design

- Overhead line, pole, tower, and foundation design (34.5kV to 765kV)
- Contract documents
- Reconductoring and uprating
- Failure investigations
- Foundation analysis and design
- Substation siting, permitting, foundation analysis, equipment layout, and design

Civil Engineering Design

- Grading, drainage, and Erosion and Sediment Control plans
- Access/haul road analysis and design
- Culvert and bridge design and flow analysis
- Stormwater management
- Soil testing
- Revegetation and reclamation plans

Structural/Seismic Engineering

- Foundation design
- Seismic design criteria
- Structural analysis

Construction Permitting

- Federal and state permits
- Local ordinance review and development
- Local agency consultation
- Wind turbine siting guide requirements
- Turbine setbacks and compliance analysis
- Survey and site plan drawings

Construction Management

- Construction and fabrication QA/QC monitoring
- Specifications and documentation
- Structural concrete and steel inspection
- Site grading inspection
- Procurement services
- Operation and maintenance plans



100+

GAI has provided solutions for over 100 renewables projects.



Connect with Our Experts

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About GAI Consultants, Inc.

Transforming ideas into reality[®] since 1958, GAI is an employee-owned engineering, planning, and environmental consulting firm providing local expertise to worldwide clients in the energy, transportation, development, government, and industrial markets.



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