

# WIND ENERGY, SOLAR ENERGY, TRANSMISSION, DISTRIBUTION & BESS SERVICES





### WIND ENERGY

Let Hanson's interdisciplinary experience help guide you through your wind energy project. From coordination with agencies and stakeholders, to land acquisition, permitting and civil design; to quality assurance; and finally to aerial detection lighting systems and mortality studies, Hanson offers services from project inception to construction.

Hanson also knows the compliance requirements of the federal, state and local laws, regulations and ordinances that are necessary for the required approvals and completion of energy projects. Contractor-friendly plans are also one of our goals to keep your site-development costs in check — which helps your bottom line.

#### Siting and public-process support

- alternatives analyses
- stakeholder concurrence facilitation
- project website and newsletter development and management
- public informational meetings
- · expert witness and testimony services

#### **Environmental services**

- environmental impact assessments, investigations and remediation
- · environmental compliance audits
- wetland delineation, mitigation and CWA Section 404 permitting
- NPDES permitting, planning and monitoring
- · threatened and endangered species surveys
- · bird and bat mortality surveys

#### Land acquisition and surveying

· appraisals and appraisal review

# Geotechnical, structural and civil engineering and site layout

- subsurface investigations
- geotechnical engineering
- structural and foundation engineering
- existing foundation loading evaluations
- · advanced hydraulic modeling
- water/stormwater storage and controls, including SWPPP
- detailed grading and drainage plans
- cross-country access road analyses, layouts, manning
- · critical access/bridge evaluations
- · access road planning and management
- crane pads and equipment laydown areas
- construction administration, quality assurance, quality control and management

#### **Aerial detection lighting systems**

 system layout and design coordination with equipment manufacturers



# **SOLAR ENERGY SUPPORT**

Hanson has supported the energy industry for more than 60 years through planning, engineering, permitting and construction oversight, garnering the experience and relationships necessary to assist you in the execution of your solar projects. We know the essential compliance requirements of federal, state and local laws, regulations and ordinances and can assist you from permitting through construction.

#### Our solar energy services include:

- Site layout
- · Local agency coordination and permitting
- Land acquisition and surveying
- Environmental permitting and services
- Design/equipment selection
- Geotechnical, civil, structural, electrical and mechanical engineering
- Foundation designs
- Stormwater control designs
- Construction quality assurance observation and oversight
- Grid integration
- Energy modeling and commissioning
- Financing coordination

# Alternative analyses, surveying, permitting and land acquisition

We have been assisting our customers with alternative analyses and formal public-engagement activities, surveying, permitting, land acquisition and consulting support services for more than 30 years.

We also offer internal and external stakeholder concurrence support services to assist your team in choosing which sites and related transmission and distribution routes are most favorable for permitting and public support.

Our team's intimate knowledge of regulatory requirements and procedures helps facilitate the permitting process, while our land acquisition specialists have the necessary skills to help you successfully acquire property, keeping your project on schedule and within budget.

#### Integrated design- and construction-phase services

We regard geotechnical, structural and civil engineering as more than applications of technology. They are tools that we use to work with you to achieve your unique project goals. Our team of planners, scientists, engineers,

surveyors and technicians work closely together and with you throughout the project process.





**Broad-based service** 

Alternative analyses, permitting and

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specifically with alternative analyses and

formal public-engagement activities, permitting

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favorable for permitting and public support. Our

Real estate surveying and land acquisition

schedule and within budget.

assist your team in choosing which routes are most

team's intimate knowledge of regulatory requirements

and procedures helps facilitate the permitting process.

Land acquisition is a sensitive process, requiring a delicate

land acquisition specialists have the necessary skills to help

you successfully acquire property, keeping your project on

balance of training, experience and "people" skills. Our

capabilities

public-process support

# TRANSMISSION, DISTRIBUTION & BESS

At Hanson, we understand the complicated and diverse needs of your transmission, distribution and battery energy storage system (BESS) projects. Our team of engineers, planners, scientists and specialists can offer a full complement of support for those needs. Our services include:

#### **Public-process support**

- · Alternatives analyses
- Stakeholder concurrence facilitation
- Project website and newsletter development and management
  - · Public informational meetings
  - · Expert witness and testimony services

#### **Environmental services**

- NPDES permitting, planning and monitoring
  - Wetland delineation, mitigation and CWA Section 404 permitting
  - Environmental site assessments, investigations and remediation
    - · Environmental compliance audits

#### Land acquisition and surveying

- · Appraisals and appraisal review
- Eminent Domain assistance
- Property and right of way negotiations and acquisition
  - Relocation assistance
  - · Title curative services and insurance
  - · Utility subordination and relocation
  - Land surveys, plats and legal descriptions

#### Geotechnical engineering

- · Subsurface investigations
- Geotechnical characterization, analysis and foundation recommendations
  - Construction-phase geotechnical engineering

#### Structural and civil engineering

- Design and analysis
- Construction administration, quality control and management
  - · Value engineering
  - · Advanced hydraulic modeling
  - · Floodway construction permitting
  - · River engineering and flood studies
  - Federal Emergency Management Agency (FEMA) studies

#### **Road monitoring**

- · Critical access/bridge evaluations
- Condition documentation using geospatial imaging
  - Road condition inventory, analysis and recommendations
    - Traffic management plans
    - · Local road official liaison services

#### Collaboration – with the common goal of successful projects

As an award-winning consulting firm, we collaborate with you to apply our planning, scientific and engineering services with the common goal of successful projects. With offices across the U.S. serving various client types, we are able to draw on resources from around the country. This enables us to engage the necessary technical expertise for your project challenges while offering your project the attention and customization it needs.



- Office Location
- Geotechnical and/or Environmental Project Experience



Brochure PDF