

Whether You Need a Fully Integrated Solution or Choose the Level of Involvement and Delegation that Meets Your Needs

Efficiency and accountability to achieve success motivate us. That's why we use an integrated service model. The complexity associated with electric transmission and renewable energy projects is simplified by our integrated approach because we have the subject matter experts available to excel in each of those critical areas, such as: concept development, non-environmental permitting, environmental permitting, land negotiations/acquisitions and leasing, survey, routing, and site design.



Renewable Energy Generation

- Project Management
- Site Selection and Evaluation
- Environmental Planning and Permitting
- Engineering and Design
- GIS Mapping
- Surface and Mineral Ownership
- Option and Lease Negotiations
- Survey, As-Built and Alignment Sheets
- Aerial Mapping and O&M Support
- · Land Administration Management
- Construction Support



Electric Transmission and Distribution

- Project Management
- Environmental Planning and Permitting
- Route Selection and Evaluation
- Engineering and Design
- GIS Mapping
- Vesting Title
- 30/50 Year Limited Title Certificates
- Easement Negotiations
- Survey, As-Built and Alignment Sheets
- Aerial Mapping and O&M Support
- Land Administration Management
- Construction Support and Damage Settlements

WHY IT WORKS

Streamlined approach:
From project set-up to schedule management to project deliverables

Cost Savings:
No duplications of team
members, such as GIS and
client liaisons

Project Tracking:
Consolidated budget
management and project KPI
reporting

Engineering

- Project Management
- Due Diligence Studies and Regulatory Compliance
- Route Selection/Evaluation, Constructibility Review and Micro-Routing
- Concept and Project Scope
 Development and Total Installed Cost
 (TIC) Cost Estimates
- Pipeline & Facility Design
 - Transmission / Gathering Pipelines (Urban and Rural)
 - Meter Stations
 - > Pump Stations
 - > Storage Facilities
- Balance of Plant Design
- · Transmission System Design
- Distribution System Design
- Solar Panel and Wind Turbine Layouts
- Energy Storage Layouts
- Construction Specifications
- Hydrostatic Test Procedures
- Horizontal Directional Drill (HDD)
 Design including Drilling Fluid
 Management and Hydraulic Fracture
 Analysis
- Purging and Commissioning Procedures

Survey

- Boundary Surveying ALTA/NSPS Land Title
- Topographic/Design Surveys
- Corridor Route Surveys
- Geodetic Control Surveys
- Utility Designating and Locating Surveys
- Hydrographic/Bathymetric Services
- Professional Mapping Services
 - > Boundary and Easement Plats
 - > Plan and Profile Sheet Production
 - > Site Planning and Layout
 - > Grading and Drainage Plans
 - > Construction Alignment Sheets
 - As-Built Alignment Sheets
 - → Construction Site Specific Exhibits
 - Environmental and Non-Environmental Permits
- 3D Laser Scanning/ High-Definition Surveying
 - > BIM/Digital Twin Modeling
 - > Detailed Plant/Facility Surveys
 - Construction Progress Asset Management
- · Construction Staking and Support
- As-Built Surveys
- Settlement and Monitoring Surveys
- Operations and Maintenance Survey Support
- Regulatory and Compliance Surveys

- Project Management
- Feasibility Studies
- Route and Site Selection
- Due Diligence
- Oil & Gas Lease Acquisition/ Amendment
- Right-of-Way Acquisition/Amendment

Land

- Non-environmental Permitting
- Fee/Mineral Acquisition
- Geophysical Testing Permit Acquisition
- GIS/Mapping
- Lease Records/Asset Management
- Land Administration Support/ Document Recording
- File Review/Assimilation & Data Entry
- Surface Site Acquisition & Settlement of Surface Damages
- State & Federal Lease Sale Representation
- Eminent Domain Support
- Construction Monitoring & Damage Settlement
- Relocation Assistance
- Operations Support & Maintenance
- Survey Permissions
- Survey Support

Environmental

- Federal Energy Regulatory Commission Filings
- US Army Corps of Engineers Permitting
- US Fish & Wildlife Service
- · Water Quality Certifications
- Wetland & Habitat Conservation/ Mitigation
- Conservation Banking
- Threatened & Endangered Species Consultation
- National Historic Preservation Act Consultation
- National Environmental Policy Act (NEPA)
- Application for Permit To Drill
- · Scenic River Permits
- Environmental Compliance
- Pre & Post Construction Assessments
- · Constraint Mapping
- Public Outreach
- Expert Testimony

Siting Routin

- Title
- Lease Checks
- Mineral Title Research
- · Runsheet/Certified Title Preparation
- Surface Title Research
- Limited Title Certificates
- Chain of Title Preparation
- Production Research
- Document Management
- File Review/Assimilation & Data Entry
- Project Management
- Tax ResearchDue Diligence

- Traditional Photogrammetry
- Airborne LiDAR
- Airborne Topographic Surveys
- Terrestrial LiDAR/Laser Scanning
- Mobile Mapping/LiDAR Surveys
- Large- and Small-Scale Volumetric Surveys
- Route Selection Assistance
- PHMSA/Regulatory Surveys
- Tank/Facility Documentation Surveys
- Aerial Reclamation Investigation and Survey Support
- UAS Equipment Feasibility and Case
 Studios
- UAS BVLOS and Sensitive COA Projects

- Blue/Green/NDAA compliant data collection available
 - Aerial Photo/Video Documentation
 - Linear Corridor/ROW/Site Inspection
 - Construction Monitoring
 - Emergency and Disaster Response
 - Civil Infrastructure Documentation
 - Environmental Conditions Documentation
 - Asset Documentation
 - Pre- and Post-Construction Assessments
 - Wireless Infrastructure Inspection
 - Thermal Inspection
 - · Leak and Failure Detection
 - Multi and Hyperspectral Data Acquisition

GIS

UAS

- GIS Analysis
 - > Siting Studies for Suitability
 - > Desition Analysis and Calastics
 - Routing Analysis and Selection
 Routing Summary & Detailed
 - Reports
 > Impact identification
 - > HCA Identification
- Webmap ApplicationsGRID Webmap Application
 - > Project Reporting Dashboards
 - Esri Field MapsGoogle Earth Pro
- Data Management
 - > GRID Database
 - Enterprise SDEFeature Services
 - Task AutomationQA/QC Measures

- Cartography
 - Mapbooks (Map Series)
 - > Engineering Route Maps
 - → Plotter Maps
 - > Site Maps (Siting Analysis)
 - → Preliminary Exhibits
 - Permit Maps
 - > Environmental (NR/CR) Figures

