Integrated Environmental Support for Energy Project Development

- Feasibility Studies and Project Design
- Project Management
- Permit Procurement
- Compliance Support
Trinity Consultants, with Sierra Research (a Trinity Consultants company), is a leading consulting firm in the field of air pollution control, with offices throughout the U.S. and Canada and overseas. The two firms merged in 2014, providing expanded capabilities to serve energy facility developers and operators with respect to their environmental challenges. One area of important focus is environmental permitting, compliance, and project management support for energy-related projects throughout the U.S., including California’s complex licensing environment.

Obtaining regulatory approvals for energy-related projects has become increasingly challenging in many parts of the US over the last 15 years, due to a combination of project opposition from local stakeholders, national environmental organizations, and new attempts to limit the combustion of fossil fuels in any manner. Trinity/Sierra helps guide developers and operators through these challenges by providing comprehensive environmental project management and technical support services for the permitting and operation of power plants, renewable energy production facilities, supporting linear facilities such as transmission lines and pipelines, and energy storage projects. This experience extends to managing the extensive construction compliance activities, providing construction management for environmental compliance, and providing technical and compliance assistance during plant operations.

Our energy project permitting support comprises four distinct components:

- Feasibility Analysis / Project Design Assistance / Permitting Strategies
- Project Management / Strategic Leadership
- Facility Permitting Support
- Pre-Construction and Construction Compliance Support

Each of these components is integral to the successful siting, permitting, and construction of energy facilities within the U.S and Canada.

**Feasibility Analysis / Project Design Assistance / Permitting Strategies**

The Trinity/Sierra team has the skills necessary to assist project developers make important technical and strategic decisions during project design, as well as in developing permitting strategies prior to and during the licensing process. Our project management team has extensive experience in identifying and addressing potential issues and roadblocks that may affect permitting activities; we provide significant contributions to related strategy development and analysis. This early attention to potential permitting issues is critical to managing both the cost and the timing of the permitting processes.

**Project Management / Strategic Leadership**

Often, energy project developers have multiple projects in development simultaneously, stretching internal resources. The Trinity/Sierra team can assist in managing the details of the permitting process, allowing your staff to focus on other issues. This partnership offers a unique approach to permitting major energy facilities. Our team is not there just to prepare the application and supporting documentation—we are an integral part of the project development team, fully focused on the project’s success.

A strong project management team is critical to a timely, efficient, and cost effective permit process. We have extensive experience managing large multi-disciplinary project teams. Working under your overall direction,
our experienced project management staff takes primary responsibility for communicating and coordinating with all of the project team members (both internal and external), the owner’s engineer, and project counsel.

Our project management experience includes projects representing over 29,000 MW of capacity, in addition to hundreds of miles of supporting linear facilities, such as natural gas and electric transmission lines. Our experience often exceeds the depth and breadth available from large A&E firms.

Energy Facility Permitting

Trinity/Sierra brings together a team that is highly skilled and accomplished in the development of energy-related facilities, including preparation of application materials and procurement of project permits. Using our extensive, nationwide resources, we are able to select team members best suited for a particular project. In areas that are outside of the Trinity/Sierra core areas of expertise, such as biological and cultural resources, we develop a team of “best of the best” subcontractors who have the technical knowledge, creativity, reputation, and expertise for each local project area. This approach enhances the level of service to our clients by providing the optimum technical resources for a specific project.

Unlike other consulting firms that include air quality among a broad range of disciplines they offer, or who have only one or a few people on staff with air quality expertise in any particular office, Trinity/Sierra has a nationwide senior air quality team with extensive experience in energy facility permitting.

Our team has experience in obtaining and managing air permits for over 60,000 MW of electrical generating capacity throughout the U.S. The Trinity/Sierra energy facility siting team includes senior staff with 15 to 35 years of professional experience working with a wide range of energy projects in 48 states in all major power markets:

- Project types: greenfield power plants; brownfield power plants; LNG terminals; transmission lines
- Power plant technologies: boilers, gas turbines, reciprocating engines, geothermal, PV solar, solar thermal, wind
- Fuels: coal, biomass, distillate fuels, residual fuel oil, biogas, natural gas, LNG

The Trinity/Sierra team of experienced, innovative engineers, consultants, scientists, and project managers has extensive experience with requirements and policies throughout the U.S., as well as long-standing professional relationships with local and state agencies. This results in detailed knowledge of permitting requirements and policies, enabling us to develop and implement innovative strategies that will be invaluable in obtaining the required
regulatory approvals in a timely and cost-effective manner. In addition, our experience with project construction and operation ensures the permits we obtain will support the project in meeting its commercial goals.

**Pre-Construction and Construction Compliance Support**

Construction environmental compliance support includes two components: 1) preparing and managing compliance documents; and 2) supporting construction project management by addressing environmental issues that arise in the field. Our power permitting project managers have extensive experience doing both. This experience is obviously beneficial during construction. However, it is also invaluable during permitting since the team knows how or whether permit conditions can be successfully implemented.

We also assist clients with compliance from commissioning through commercial operation and plant decommissioning. The consistency provided through this hands-on, cradle-to-grave experience minimizes lifetime support costs. For instance, our skills in evaluating compliance with regulatory requirements and conformance with management system processes and practice make us ideally suited to conduct effective due diligence and compliance audits to ensure that all applicable regulations have been properly addressed, determine compliance status, and suggest corrective action where needed. The result is a complete picture of all regulatory requirements to help you attain or maintain compliance. Our audit professionals provide complete audit services from audit planning through implementation and closure of corrective action items.

**Additional Support for the Energy Sector**

In addition to supporting the complex permitting process surrounding new energy facilities, Trinity/Sierra provide the power industry with a wide array of related services, including:

- Acid Rain/CSAPR permitting and allocations
- Continuous Emissions Monitoring Systems (CEMS) assistance
- Dispersion modeling
- EMIS system selection and implementation
- Litigation support and expert testimony
- Professional training on EH&S topics
- Regulatory applicability analysis
- Regulatory compliance auditing
- State and federal emissions inventories
- State and federal hazardous waste reporting
- Toxic Release Inventory (TRI) reporting

**Partnering with Trinity/Sierra**

Our experienced team collaborates and communicates frequently on issues related to the power industry to help keep you informed of important regulatory developments. Furthermore, we are well respected by state and federal environmental agencies and maintain alliances with top tier environmental attorneys and other professionals serving the power industry. Whatever your challenge, Trinity/Sierra has the experience and insight to provide intelligent solutions that provide competitive advantage.

To learn more about how Trinity/Sierra can partner with you for effective permitting and compliance for power projects, contact Russell Bailey at (540) 342-5945 or rbailey@trinityconsultants.com.