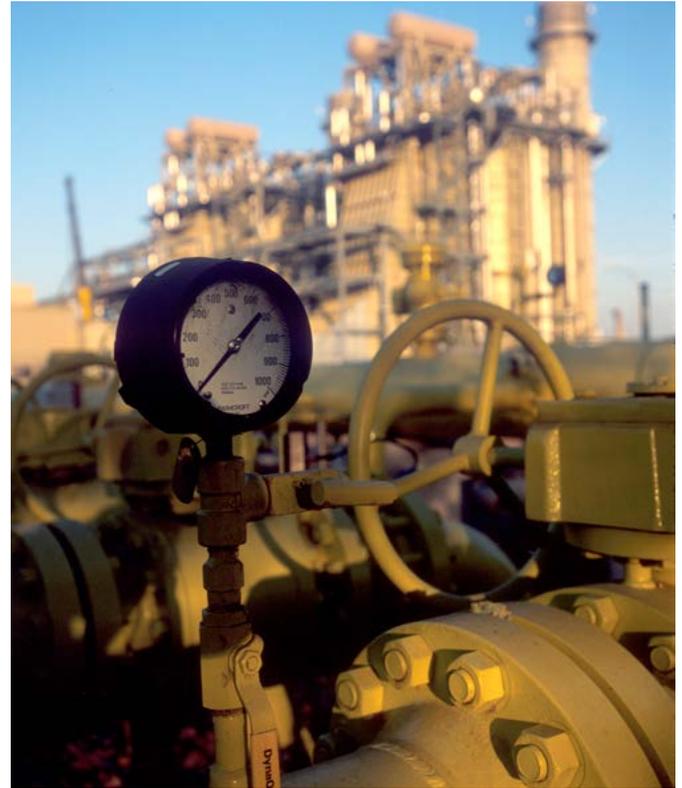


## Engineering Services for the Electric Generation Industry

**Constructability, operability and maintenance are important factors in power project design. Tetra Tech engineers provide a broad array of engineering services for power facilities, always keeping safety, cost, and practical operating factors in the forefront.**

Tetra Tech professionals have long supported engineering design of the full range of energy facilities. We understand the requirements and care required for support of the range of technical services, from single-focus efforts such as stormwater management design through comprehensive facility layout and design activities. Our network of engineers located throughout the U.S. and Canada work together to provide efficient, effective solutions for projects, wherever they are located. In addition, we bring the Tetra Tech construction experience to our design support, integrating knowledge of project implementation in everything we do.



### **Tetra Tech brings high quality engineering services to power projects that range from:**

- Owner's engineer – providing oversight, engineering review, layout, scheduling, procurement management, construction management and start-up and commissioning assistance
- Major equipment selection and specifications – ranging from turbines through balance-of-plant equipment
- Detailed design – with experts in mechanical systems, HVAC, fire suppression systems, plumbing and domestic water systems, electrical design, substation design, and civil/structural design
- Engineering support for permitting – design and drawing support for a range of permitting activities including stormwater management, wetlands, intake/discharge structure modifications
- Procurement support – with such services as bid evaluations, vendor negotiation, and shop drawing review

**Tetra Tech** is a leading provider of consulting, engineering, program management, construction management, and technical services. The Company supports commercial and government clients by providing innovative solutions to complex problems focused on water, environment, energy, infrastructure, and resource management. With 13,000 employees worldwide, Tetra Tech's capabilities span the entire project life cycle.

## Tetra Tech offers the full range of engineering services to the electric generation industry

### Environmental Engineering

Tetra Tech supports facility design, from a comprehensive power plant facility through project-specific design to address targeted site or project issues. We provide feasibility studies and assessments, technical analyses, decision-making tools, and design engineering to address the complete balance-of-plant issues as well as individual topics, such as noise, air quality or disposal sites.

### Development Support

Our clients utilize Tetra Tech as Owner's Engineer to assess and document the range of issues associated with new power project development. Integrating technology, site and other factors, the costs, timing and risks associated with potential project scenarios are weighed against benefits to develop a project that meets applicable goals. Tetra Tech can evaluate equipment selection, critical environmental permitting issues, and transmission and dispatch issues, as well as support procurement. Our full-service capabilities bring objective and balanced consideration of the range of factors for a successful project.

### Balance-of-Plant Services

Tetra Tech's design experience of the systems surrounding a power facility's turbine generator can integrate vendor details into an overall balance-of-plant design that fits the project site and meets operational needs. Tetra Tech has civil, structural, mechanical, electrical, instrumentation and control, and environmental engineers on staff who work in an integrated fashion to design such features as fuel systems, cooling systems, lighting, instrumentation and controls, concrete and structural design, process equipment sizing and specification, vessels and tanks, grading, and stormwater management.

### Geotechnical and Structural Engineering

Tetra Tech provides geotechnical and geologic studies to fully understand subsurface conditions and its implication to design and structural stability. We provide design services for foundations, slope

stabilization, retaining walls, subsidence, overhead and underground electrical transmission lines, and structural impoundments. We also assess such issues for existing facilities, providing failure investigations, hurricane damage assessment, load and stress testing, and structural rehabilitation.

### Process Engineering

Tetra Tech provides detailed process engineering design support from development, trade-off studies and system analysis through detailed PFD and P&ID development. Services include energy conservation studies and hydraulic analysis including steam and air load analysis and system sizing.

### Mechanical Engineering

Mechanical engineering services provided by Tetra Tech include full combustion system planning, design and safety review; equipment sizing and selection including technical bid evaluations and vendor shop drawing reviews; and equipment and facility layout. Services also include HVAC design and fire protection design support.

### Piping and Pipe Support

Tetra Tech's piping design services include stress and flow analysis; seismic analysis; 3D facility piping and support modeling; and development of isometric and spool fabrication drawings.

### Equipment Design and Specification

Tetra Tech prepares specifications and develops detailed design for the full range of power plant systems, including combustion fuel systems and equipment; air and dust handling and filtration systems; ductwork; wastewater treatment systems; pollution control systems; and associated handling systems.

### Electrical Engineering and Control System

Tetra Tech's electrical team can support design efforts for power systems of any size. We can complete power distribution, communication, security and lighting system analysis and design, preparing supporting studies and developing 3D drawing design for conduit, duct banks and cable tray systems.

- Professional engineering resources are located throughout the U.S. and Canada
- Tetra Tech engineers effectively integrate into our full-service power industry teams
- From single-issue design support through comprehensive planning integrating numerous engineering disciplines, Tetra Tech can meet your project needs

### Company Facts:

- 13,000 employees
- Annual revenue: \$2.5 billion (FY2014)
- NASDAQ Symbol: TTEK
- Geographic reach: More than 300 offices worldwide

### For more information:

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