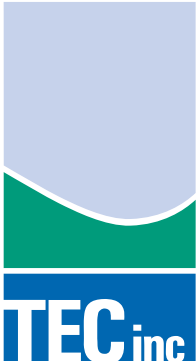


**ENERGY**  
SERVICES



## Opening opportunities ...

Today, more than ever, energy and the environment are inextricably linked. The exploration and development of new energy resources and the siting, construction, and operation of new energy facilities require navigating a maze of environmental regulations and permitting requirements that can be daunting, time-consuming, and very expensive. For more than 20 years, TEC has helped clients manage their total relationship to the environment and achieve their developmental and operational goals. We are experts at finding regulatory gateways that expedite projects while preserving and even enhancing the environment.

## for the energy industry.

We partner with our clients for the long run. Returning clients account for approximately 75 percent of our workload and many new clients come to us by referral. Our clients include private firms, government agencies, law firms, and engineering companies. We frequently team with other consulting companies so we can provide clients with the best talent available wherever it is needed.

TEC consists of more than 250 professionals operating out of offices across the continental U.S., Hawaii, and Europe. We have successfully supported clients in more than 50 countries. So wherever your business currently operates or your new venture takes you, TEC can support you—saving you time, money, and headaches—by clearing your path to success.

The services described in this brochure include

Environmental Planning

Environmental Management

Asset Management

Environmental Restoration

Please go to [www.tecinc.com](http://www.tecinc.com) for more information about us.



## Environmental Planning

Integrated environmental planning is a key element in a successful energy project. Well-executed environmental planning balances competing natural, ecological, and socioeconomic interests with the goals of the project, whether public or private sector; old or new-era energy; fossil fuel or renewable; whether extraction, production, transmission, or consumption. Firsthand knowledge of legislative, regulatory, and administrative processes, environmental systems, and stakeholder coordination is essential.

Forward-thinking energy sector businesses use environmental planning as a strategic asset. By integrating the principles of sustainability into a long-range comprehensive plan at project start-up, energy companies can avoid permitting delays, excessive costs, design flaws, and operational inefficiencies. Careful environmental planning can mitigate factors influencing energy consumption, waste management, and the cost of ongoing compliance.

TEC's project experience is deep. Our planners, scientists, and engineers work in integrated units that function as an extension of your team ... on your schedule and focused on your specific needs. Our services encompass the full range of planning efforts, including baseline terrestrial, air, limnologic, and marine environmental studies and surveys; cultural resource services; permit acquisition; and sustainability initiatives.

### Areas of Expertise

**NEPA Documentation**  
EA and EIS Preparation

**Baseline Environmental Surveys**

**Cultural Resources Services**

Archaeological and Historic  
Resource Surveys

Impact Analysis and Mitigation

Native American Consultation

State Historic Preservation  
Office Consultation

**Support for Energy and Environmental  
Sustainability Initiatives**

**Social/Economic Impact Studies**

**Public Involvement Support**

**Biological and Natural Resource  
Investigations**

Threatened and Endangered  
Species Surveys

Wetlands Delineation, Mitigation, and  
Section 404 Permitting

Habitat and Vegetation Mapping

Fire and Vegetation Management  
Planning

Biological and Ecological Monitoring  
and Mitigation

**Facility Siting, Alternatives  
Identification, and Assessment**

**Visual Resource Assessments  
and Simulations**

TEC has provided expert services to the Western Area Power Administration, the Bureau of Reclamation, the Federal Highway Administration, and the National Park Service for historic resources at the Hoover Dam National Historic Landmark and Lake Mead National Recreation Area in Nevada and Arizona. TEC has inventoried and recorded more than 500 historic features.





Since 1996, TEC has provided environmental monitoring and regulatory support for the Puna Geothermal Venture, which operates a geothermal power plant on the island of Hawaii and is the only commercial producer of geothermal energy in Hawaii.

## Environmental Management

Operation of energy facilities must correspond to regulatory compliance requirements, company or agency sustainability mission goals, and often shareholder expectations. Production and delivery of energy present unique issues in licensing and permitting, emissions accountability and offsets, waste stream management, and the size and location of the environmental footprint.

Effective environmental management systems (EMS) and sustainable practices are woven into all aspects of business and government agency management practices from accounting through operations. With supply chain greening and process improvements, a well-integrated EMS can lead to significant gains in waste minimization, emission reductions, energy savings, and revenue optimization strategies.

TEC puts you in control with comprehensive environmental management services that ensure your operational objectives are met, while preserving the long-term viability of essential natural resources. TEC's national reach provides a powerful advantage in managing the web of regulatory requirements at all levels of government. Our team of legal and managerial specialists, scientists, and engineers know the laws, the agencies, and the strategies required for cost-effective compliance. As a result, you can operate with confidence and efficiency, now and into the future.

### Areas of Expertise

Regulatory Compliance and Permitting

Strategies and Plans for Clean Air Act Compliance

Clean Water Act Section 404 Permits

Administration and Management of Stormwater and Drinking Water Plans

State-by-State Attention to Regulations Governing Oil Spill Prevention, Hazardous Waste, and Pesticides

Applications for Permit to Drill

Spill Prevention, Control, and Countermeasure Plans

Environmental Compliance Audits

Greenhouse Gas Management

Greenhouse Gas Source Inventories

Emission Inventory Management Plans

Air Permitting and Dispersion Modeling

Emission and Offset Data Management

Pollution Prevention Planning

Environmental Management System Implementation and Training

Environmental Restoration

Hazardous Waste Management

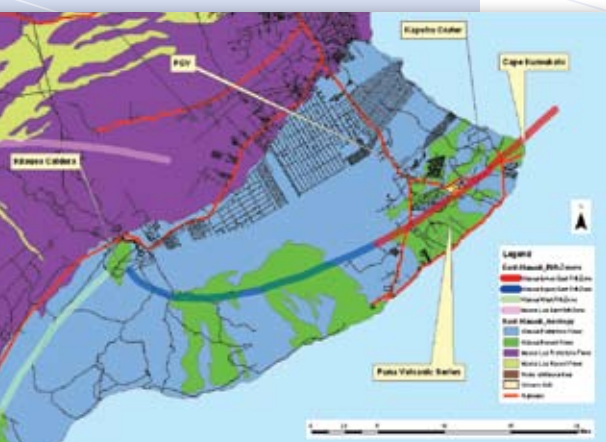




Photo courtesy of U.S. Air Force/  
Airman 1st Class Nadine Y. Barclay

## Asset Management

Managing the environmental and energy footprints of your company's or installation's key infrastructure assets is an essential component of sustainable business practices. Aging infrastructure may result in reduced performance and increased maintenance and rehabilitation costs. Through facility condition assessments and energy auditing, organizations can make accurate and balanced decisions regarding capital asset renewal and maintenance funding requests and decisions.

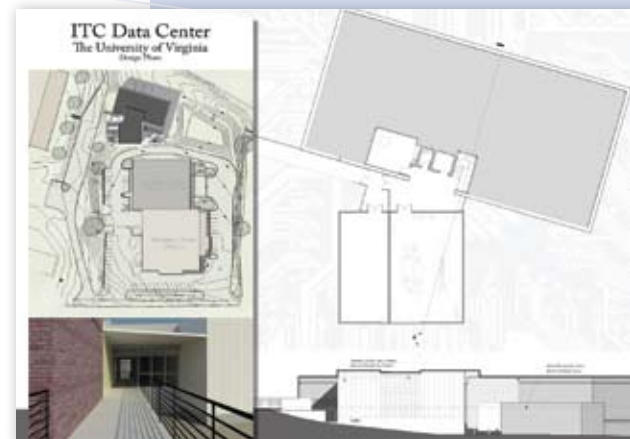
Professional engineers and architects conduct TEC's facility condition assessments and energy audits, which examine a suite of structural, roofing, electrical, mechanical, HVAC, and plumbing system factors. They pay special attention to submetering potential for major energy consuming devices and the monitoring of system operating characteristics. TEC produces load profiles and financial models for alternative design, operational, and equipment scenarios.

In most corporate and government agency settings, upgrades to a facility's energy infrastructure must compete with non-energy related investments. Through the use of Web-based decision support tools and planning and sustainable design solutions, TEC helps you proactively address the environmental aspects of asset management to achieve greater efficiencies and reduce risks and costs.

TEC partnered with the University of Virginia to seek LEED Silver Certification for the University's addition to its Printing and Copying Services Building. TEC provided architectural services for the 15,000-square-foot addition, which is designed with sustainable features throughout.

## Areas of Expertise

- |  |   |
|--|---|
| Facility Energy and Conservation Audits                            | Metering Studies and Data Management                          |
| Facility Design and Process Engineering                            | Greenhouse Gas Management for Commercial and Retail Buildings |
| Leadership in Energy and Environmental Design (LEED) Certification | Capital Improvement Planning                                  |
| Sustainable Design   | Water Audits/Water Loss Reduction Plans                       |
| Plans and Specifications for Energy Efficiency Upgrades            |   |





TEC has played an ongoing role in the long history of cleaning up the WWII fuel storage facilities and pipelines at Hickam Air Force Base on Oahu. Like the site, the clean-up has been physically and historically complex, with many simultaneous activities.

## Environmental Restoration

The remediation and restoration of waste disposal and spill sites can represent significant long-term resource commitment for a business or government agency. Energy consumption and the resulting mining, drilling, pipeline transport, electric power production, retailing, shipping, and refining continue to produce waste sites and remedial management challenges.

Restoration programs that can involve decades of commitment for business resources, balance sheet offsets, community challenges, legal expenses, and remediation costs must be managed intelligently. The technical support requirements are equally challenging: focused teams of chemists, hydrogeologists, toxicologists, public involvement and regulatory specialists, and civil, chemical, geological, and environmental engineers contribute to multidimensional solutions.

TEC's experience in managing environmental restoration projects is substantial, as is our knowledge of the applicable regulations. TEC's professional staff has performed hundreds of projects for companies and government agencies, efficiently navigating the requirements of CERCLA, RCRA, and related federal and state remediation programs. From supporting private and public sector clients in assessing the environmental impacts of properties during acquisition and divestiture to full site investigation and remediation solutions, TEC provides comprehensive, cost-effective solutions to some of the most complex issues in the energy business.

### Areas of Expertise

#### Studies/Investigations under CERCLA and RCRA

- Preliminary Assessments/ Site Investigations
- Remedial Investigations and Feasibility Studies
- Facility Assessments
- Corrective Measures Studies
- Treatability Studies
- Contaminant Fate and Transport Modeling
- Innovative Technology Evaluation and Implementation

#### Stakeholder Coordination

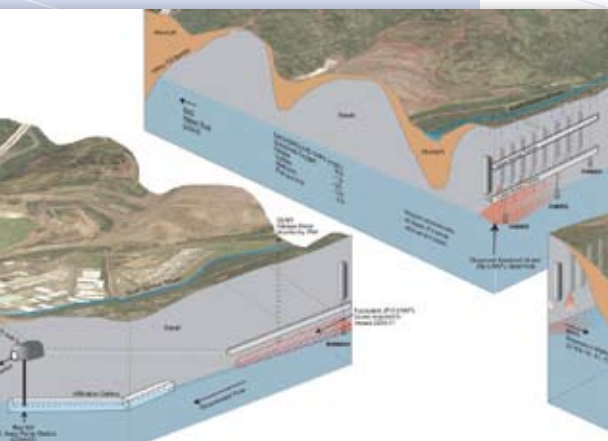
#### Remedial Design

- Engineering Evaluations and Cost Analyses
- Remedial Designs and Validation Reviews
- CERCLA Records of Decision
- RCRA Corrective Action Plans

#### Long-term Operation/Monitoring and Technical Support

- Remedial Action Surveillance and Oversight
- Long-term Monitoring
- Remedial Process Optimization
- Ecological and Human Health Risk Assessments

#### Identification of Potential Environmental Liabilities



## Environmental Planning

NEPA Documentation  
Baseline Environmental Surveys  
Cultural Resources Services  
Biological and Natural Resource Investigations  
Support for Energy and Environmental Sustainability Initiatives  
Facility Siting, Alternatives Identification, and Assessment  
Visual Resource Assessments and Simulations  
Social/Economic Impact Studies  
Public Involvement Support

## Environmental Management

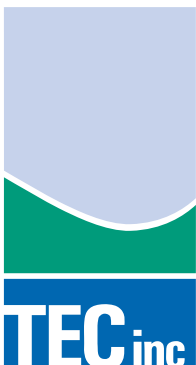
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Greenhouse Gas Source Inventories  
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Emission and Offset Data Management  
Pollution Prevention Planning  
Environmental Management System Implementation and Training  
Environmental Restoration  
Hazardous Waste Management

## Asset Management

Facility Energy and Conservation Audits  
Facility Design and Process Engineering  
Leadership in Energy and Environmental Design (LEED) Certification  
Sustainable Design  
Plans and Specifications for Energy Efficiency Upgrades  
Metering Studies and Data Management  
Greenhouse Gas Management for Commercial and Retail Buildings  
Capital Improvement Planning  
Water Audits/Water Loss Reduction Plans

## Environmental Restoration

Studies/Investigations under CERCLA and RCRA  
Remedial Design  
Long-term Operation/Monitoring and Technical Support  
Identification of Potential Environmental Liabilities  
Stakeholder Coordination



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