

Advanced Technology Management Services



Advanced energy technologies deliver the resilience needed to enable Department of Defense (DoD) installations and surrounding communities' endurance, agility, and resilience. Concurrent Technologies Corporation (CTC) offers innovative, technology-agnostic approaches to explore carbon pollution-free energy (CFE) opportunities through pilot programs, such as advanced nuclear and enhanced geothermal. We provide programmatic support and analyze the cost, technical feasibility, risk, mission-specific siting criteria, stakeholder management, and public outreach of advanced technology solutions. Our activities ensure our clients are well equipped with validated and authorized acquisitions of cutting-edge technology applications that improve mission resilience.

Core Competencies

- Portfolio Oversight, Program Development & Budget Planning
- Program & Project Risk Assessment
- Energy & Water Security Analysis & Planning
- Stakeholder Management & Facilitation
- Federal Partnership Management
- Pilot Project Planning & Execution
- Decision Support & Data Analytics
- Critical Mission & Infrastructure Analysis
- Control Systems & Network Vulnerability Assessment
- Cybersecurity Compliance & Assessment
- Systems & Planning Gaps Analysis
- Utility Infrastructure Condition Assessment
- Acquisition & Real Estate Analysis
- National Environmental Policy Act (NEPA) Analysis & Documentation Development
- Incident Response & Emergency Management Planning

Differentiators

- Highly experienced program managers, analysts, attorneys, and engineers from diverse disciplines
- Experience with facilitating strong partnerships with federal, state, and local communities; utilities; contracting agencies; laboratories; industry; and academia.
- Leadership in process improvement and turning program best practices into the establishment of nascent metrics, programs, and offices
- Objective analyses, assessments, advice, and recommendations
- Leads innovative approaches of non-traditional scientific rigor applied to traditional acquisition processes under existing authorities and statutes

Section 327 of the John S. McCain National Defense Authorization Act (NDAA) for Fiscal Year 2019 required the Secretary of Energy to develop “a report describing the requirements for, and components of, a pilot program to provide resilience for critical national security infrastructure at Department of Defense facilities with high energy intensity and currently expensive utility rates and Department of Energy facilities by contracting with a commercial entity to site, construct, and operate at least one licensed micro-reactor at a facility identified under the report by December 31, 2027.”

Since 2019, CTC has provided advisory services to the Deputy Assistant Secretary of the Air Force for Infrastructure, Energy, and Environment, in close coordination and partnership with the Defense Logistics Agency (DLA) Energy Office, Nuclear Regulatory Commission (NRC), and Department of Energy (DOE) Nuclear Energy Office to demonstrate commercial advanced nuclear reactor technology through a power purchase agreement pilot at Eielson Air Force Base (AFB) in Fairbanks, Alaska. A third-party developer will own and operate a micro-reactor licensed by the NRC to deliver electricity and thermal energy to Eielson AFB in exchange for Department of the Air Force’s long-term purchase of the energy it generates.

In support of the Eielson Micro-reactor Pilot Program, CTC documented critical acquisition, environmental, and safety requirements with DLA, DOE and NRC to better understand the energy flexibility, timeliness, and cost effectiveness of a NRC-licensed advanced nuclear reactor for future application at Eielson AFB. Our findings determined that a standard approach for implementing advanced nuclear applications should consider more robust site specific criteria, metrics, suitability analyses, and various regulatory and acquisition pathways to improve DoD’s ability to scale nuclear energy options, in a data-driven way. CTC takes great pride in leading ongoing stakeholder engagement with federal, tribal, state, and local communities alongside experts across industry, utilities, and academia in Alaska to ensure the success of advanced nuclear investments and public health and safety.

Key Attributes:

- Acquisition planning & development
- Safety, shielding, cyber-physical hazards and risk assessments
- Environment and socio-economic analysis
- Assessment of transportation, emergency planning, international transportation agreement requirements
- Analysis of integrated energy systems with advanced reactors to diversity types of output & fuel availability
- Partnership advocacy, development, & management
- Engagement with the industry and regulatory agencies to resolve unique issues associated with deployment at a specific site



Contact

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Concurrent Technologies Corporation (CTC) is an independent, nonprofit, applied scientific research and development professional services organization with facilities that meet DoD security requirements.

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