



CORPORATE CAPABILITIES

*ENHANCING FACILITY OPERATIONS,
IMPROVING BUILDING EFFICIENCY*

DEI Consulting

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Schedule
Contract GS21F0004U



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U.S. SOUTHERN COMMAND
HEADQUARTERS (SOUTHCOM)



U.S. EMBASSY RENOVATION
BRUSSELS, BELGIUM



U.S. PHARMACOPEIA



About Us

DECON Engineering, Inc. (DBA: DEI Consulting) is a small business company, headquartered in northern Virginia. Our main office is located at 21495 Ridgetop Circle, Suite 204 Sterling, VA 20166. DEI is owned and operated by a registered Professional Engineer. The company was founded in 1991 and specializes in Building Commissioning, Retro-Commissioning, and Energy Management services. DEI is celebrating its 25th year of helping clients optimize their facility performance through commissioning, retro-commissioning, and energy use reductions. Our clients include Federal facilities, State Government agencies, local counties, private companies, and institutional facilities.



DEI is an approved GSA contractor and holds the complete Range of Special Item Numbers (SINs) for providing comprehensive professional energy and commissioning services under its GSA Federal Supply Schedule contract GS-21F-0004U. Our key staff hold Professional Engineering licenses in multiple states, are Certified Energy Managers, and Certified Commissioning Authorities. Our LEED Accredited professionals have helped our clients implement the USGBC model for Leadership in Energy and Environmental Design (LEED™) for New Construction (NC) and major renovation projects. DEI is also a DOE approved contractors for comprehensive energy services.



Over the years DEI has been continuously building on its outstanding record and has been improving its capabilities and expertise. This is why we are able to bring our extensive and diverse experience to every project we undertake and are constantly exploring new and innovative ways to execute projects efficiently, creatively, and cost effectively. Our company has an excellent record of being responsive to its client's needs. Our clients have enlisted us because of our reputation for quality services, our understanding of technical issues, and our ability to communicate concisely, accurately, and effectively. They have continuously returned to us because of our consistent high-quality, on-time, and within-cost performance.

DEI's multidisciplinary approach towards energy use analysis and system Commissioning has enabled it to develop innovative, comprehensive, and economical solutions for all of our clients. Our professional services have saved building owners and managers 30 percent or more on their energy use and operation & maintenance costs. We have helped our clients increase the life expectancy of their facilities, improve their employee productivity, and enhance their companies overall financial performance.

Professional Services

DEI's team of engineers works collaboratively to deliver successful building and facility commissioning and energy projects. Our professional engineers and certified commissioning authorities provide innovative technical solutions for new as well as existing facilities. We offer a full complement of energy and commissioning services to protect our nation's natural resources. Our engineers develop sustainable energy and commissioning solutions and ensure compliance with code and building operational requirements. We provide environmentally sound and innovative green consulting, commissioning, and construction management services. Our professionals ensure that projects are constructed as designed and built to sustainable and green standards within schedule and budget requirements.

DEI offers professional services in the following areas:

- ❑ **Building Commissioning and Retro-Commissioning**
- ❑ **Facility Energy Use and Operational Assessments**
- ❑ **Utility Rate Analysis and Metering Plans**
- ❑ **Operations and Maintenance Requirement Analysis & Development**

Facility Types Commissioned

DEI has experience in all aspects of Commissioning and has performed similar services for a variety of facility types some of which include:

- | | |
|---|---|
| ❑ Embassies | ❑ Penitentiary & Detention Centers |
| ❑ Libraries | ❑ Automotive Maintenance Facilities |
| ❑ Office Buildings | ❑ General Warehouse |
| ❑ Recreation Centers | ❑ Education and Institutional Facilities |
| ❑ Police & Fire Stations | ❑ Data and Communication Centers |
| ❑ Medical Centers, Hospitals, & Laboratories | ❑ Military Compounds & Mission Critical Facilities |

NEVILS RESIDENCE HALL RENOVATION-
GEORGETOWN UNIVERSITY



PRINCE WILLIAM COUNTY
ADMINISTRATIVE BUILDING III, VA



VISN-2 VAMC SYRACUSE, NY



Building Commissioning and Retro-Commissioning

DEI has a thorough understanding of all aspects of Commissioning, starting from the initial development of the Commissioning Plan to Verification & Functional Testing to seasonal testing and finally post-occupancy operations verifications. DEI specializes in Commissioning and provides Commissioning as its core business. Currently over 90% of DEI's work is dedicated to Commissioning services.

DEI Personnel are fully familiar with the design and operation of many facility types and have provided commissioning services on general office buildings, penitentiary and adult detention centers, medical centers and hospitals, laboratories, educational (K-12/College and Universities), data centers, network communication centers, industrial and process facilities, military compounds and mission critical facilities.

DEI provides Commissioning services on new and existing facilities. We have the exemplary staff and resources necessary to successfully provide Commissioning services as may be required on our assigned projects. We are confident that our team offers the best package of experience, resources, and corporate commitment to serve as your Commissioning Authority. Our Personnel have extensive knowledge and experience in, but not limited to, the followings Commissioning activities:

- Review design as submitted by the A&E at Schematic Design (SD), Design Development (DD), and Construction Document (CD) Phases**
- Technical support during the project Design and Construction Phases related to Commissioning**
- Commissioning specifications for test procedures**
- Development of Commissioning Plan**
- Review of approved equipment submittals**
- Development of equipment Verification Test forms**
- Development of Commissioning Deficiency Logs**
- Performance of field Verification Tests**
- Development of equipment Functional Performance Test forms**
- Review and observation of major system start-up procedures**
- Performance of equipment Functional Performance and inter-system tests**
- Training for facility O&M staff, and equipment start-up procedures**
- Project documentation, including development of the "Master Building CD-ROM"**

DEI understands that Commissioning is a team effort and that the Commissioning Authority plays a key role in the proper installation and operation of all systems. This is why DEI places a large amount of focus in the development of a sound Commissioning Plan to clearly describe the Communication protocols, roles and responsibilities, and documentation of Commissioning activities during all phases of the project.

GAINESVILLE LIBRARY



GLENMONT FIRE STATION



MONTCLAIR LIBRARY



Facility Energy Use and Operational Assessments

Energy use management has always been the cornerstone of our company. Our focus is on energy because we know how important it is to the bottom line of every building owner, business, and organization. Energy can affect occupant comfort, employee productivity, and business overhead. Energy waste also affects our environment and our natural resources. Energy use awareness and reduction prevents environmental pollution and preserves earth's natural resources. At DEI, we strive to lower our customer's building energy consumption, helping them lower their energy cost as well as reducing their operational and maintenance costs. Starting with an energy audit, DEI first performs a technical assessment of your facility's operating conditions. We then develop a customized building tune-up plan that fits your budget and prioritizes the identified energy conservation measures. DEI also utilizes computer programs to calculate the life-cycle cost and savings associated with each of the identified savings measures.

DEI's energy management services include:

- ❑ Energy Audits
- ❑ Electricity and Gas use Studies
- ❑ Energy-Efficient Technologies Assessment
- ❑ Heat Recovery and Thermal Energy
- ❑ Storage Analysis
- ❑ District Heating Evaluation
- ❑ Cogeneration System Studies
- ❑ Renewable Energy Technologies
- ❑ Building Energy Use Simulation
- ❑ Demand-Side Management
- ❑ Energy Performance Contracting

Utility Rate Analysis and Metering Plans

DEI has been providing utility analysis and assistance in:

- ❑ **DEFINING METERING AND MONITORING OBJECTIVES**
- ❑ **ANALYZING HARDWARE**
- ❑ **SOFTWARE**
- ❑ **PERSONNEL CAPABILITY**
- ❑ **COST TRADEOFF OPTIONS**
- ❑ **DEFINING POTENTIAL USES OF METERED DATA**
- ❑ **DEVELOPING AGENCY-SPECIFIC RECOMMENDATIONS**

DEI is committed to working with all Government agencies to comply with:

- ❑ **FEMP**
- ❑ **EPACT 2005**
- ❑ **EISA**

By recommending and implementing advanced meters and other environmental monitoring systems (EMS). Monitoring the effectiveness of the energy management program through metering provides the means for the energy manager to establish the energy accounting system that is essential for control and evaluation of the program. The effective use of information generated by monitoring and metering can result in savings of both energy and dollars. Metering for water, electricity, natural gas, and other energy-related utilities systems serving the facility is among DEI capabilities. The most common type of metering is for electricity, but substantial benefit can also be realized for steam, hot water, and natural gas.



Operations and Maintenance Requirement Analysis & Development



DEI is experienced in and provides operations and maintenance requirements analysis and training services. Efficient Operations & Maintenance (O&M) systems have enormous benefits in terms of the financial incentives as well as:

- ❑ OCCUPANT HEALTH
- ❑ PRODUCTIVITY

Our training process will allow Government employees to implement a proven strategy to fully optimize the buildings economic and environmental performance and maintain their energy conservation goals. Our team has the demonstrated unique ability to offer training, O&M recommendations, and implementation plans to Federal agencies so that they can better manage their operations and achieve their energy performance objectives.



Sustainable Building Performance