Utility Energy Services Contract
Working with an Energy Services Company

FUPWG UESC Best Practices
November 2, 2016
Exelon is a FORTUNE 100 company that works in every stage of the energy business: power generation, competitive energy sales, transmission and delivery. As the nation's leading competitive energy provider, Exelon does business in 48 states, D.C., and Canada and had 2015 revenues of $34.5 billion. We employ approximately 34,000 people nationwide.
Constellation offers energy and environmental solutions that help our Federal customers minimize costs—while saving energy and reducing greenhouse gas emissions. Our expert, dedicated staff maximizes every available resource to deliver solutions designed to achieve your energy, cost-management, and environmental goals.
Constellation Provides a Holistic Approach to The Integrated Energy Strategy

- Develop a custom Power and Natural Gas Purchasing Strategy
- Deploy On-Site Generation
- Add Energy Efficiency Upgrades and Load Response* Programs
- Leverage Market Expertise, Monitoring and Reporting
- Integrate Renewables (RECs, Wind, Solar) into their generation mix

Mitigate Risks
- market volatility (power & gas), emergency preparedness (On-site Gen)

Reduce Consumption & Overall Spend
- Curtail load, increase building efficiency, regularly monitor demand

Support Company Goals
- including environmental goals and budgetary needs

= Compounded Benefits that deliver real value to your Agency.
Constellation Distributed Energy’s value proposition for Agencies

- Dedicated Distributed Energy Engineering Teams by technology
- Experienced Project Integrator on Large Projects with Complex Phasing and ECMs
- Operation and Management Services
- Competitive and Comprehensive Financing

<table>
<thead>
<tr>
<th>Management and operation services for complex energy assets from experienced generation operator and wholesale market expert</th>
<th>Attractive financials: no upfront capital requirements, long-term contract backed by Fortune 500 company, and increased budget predictability</th>
</tr>
</thead>
<tbody>
<tr>
<td>“One stop shop” for energy management expertise</td>
<td>Operational and revenue-stream efficiencies to alleviate customers’ financial burden for needed infrastructure</td>
</tr>
<tr>
<td>Scalable assets with customizable turnkey solutions</td>
<td>Support of corporate sustainability and emissions reduction goals</td>
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</tbody>
</table>
## Recent UESC Experience

### Delivering Comprehensive Energy Management to Federal Government

#### Pepco Energy - Recent Representative UESC Task Order Awards

<table>
<thead>
<tr>
<th>Federal Customer</th>
<th>Award</th>
<th>Value</th>
<th>UESC Contract Scope</th>
</tr>
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<tbody>
<tr>
<td>US Department of State</td>
<td>Feb. 14</td>
<td>$12,134,870</td>
<td>Competitively selected for this Decentralized Steam Project, Design, and Installation of 9 - 6MMBTu Hot Water Boilers and Domestic Hot Water Heaters</td>
</tr>
<tr>
<td>US Department of State (SA-1 Annex)</td>
<td>Sept. 14</td>
<td>$3,465,000</td>
<td>Competitively selected for NTE award of $3.5M (funded); ECMs include PV system, LED lighting, ECMS upgrades, and water</td>
</tr>
<tr>
<td>BEP - Wiping Solution Recycling Project (WSRP)</td>
<td>June 12</td>
<td>$10,311,117</td>
<td>Industrial process improvements that will reduce water and chemical use by 90%, and save BEP over $1,000,000 per year in energy and operating costs</td>
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<tr>
<td>US Department of Energy (Germantown) Boiler Plant</td>
<td>Sept 15</td>
<td>$7,155,960</td>
<td>Complete retrofit of central boiler plant, controls upgrades, chilled water optimization, LED retrofit</td>
</tr>
<tr>
<td>US Fish &amp; Wildlife Service (Patuxent)</td>
<td>Feb 15</td>
<td>$1,480,492</td>
<td>Installation of ENERGY STAR roof with 250 kW photovoltaic array on rooftop and parking lot canopy</td>
</tr>
<tr>
<td>NASA Goddard—Chiller Plant and Boiler Plant Optimization</td>
<td>Sept 14</td>
<td>$2,900,000</td>
<td>Redesigning chiller plant to reduce costs and demand, conducting an IGA for Controls and Controls strategy upgrades to the central utility plant</td>
</tr>
<tr>
<td>NIH—MultiBuilding</td>
<td>Dec 13</td>
<td>$9,641,265</td>
<td>Repairing/replacing HVAC, building envelope, pipe insulation and lighting. Upgrades and utility metering</td>
</tr>
</tbody>
</table>
Partnered Approach for All UESC Projects

Collaborate and Communicate at Every Phase

**Detailed Feasibility Study (IGA)**
- Understand Agency’s Organizational and Facility Needs, Identify Preferred ECMs.
- Review All ECMs for their Advantages & Paybacks: Agency makes ECM Selection; Solicit Quotes
- Develop Design; Obtain Agency Approval of all Design and Equipment Selections; Select Contractors

**Construction and Commissioning**
- Obtain Agency Approval of Construction Plan and Execute to Meet All Agency Goals & Requirements
- Provide Selected Performance Period Services, Operate Equipment and Verify Performance of ECMs

**Engineering and Design**
- Preliinary Assessment
- Detailed Feasibility Study (IGA)
- Engineering and Design
- Construction and Commissioning
- Performance Period

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Subcontractor Selection Process for Best Value and Low Risk

Constellation Has a **Rigorous** Subcontractor Qualification Process:

- **Positive** Financial History
- **Excellent** Past Performance on Similar and/or Related Projects
- **Low Risk** Experience Modification Rating (EMR) i.e. Safety
- **Acceptable** Employee Clearance & Vetting Policies
- **Sufficient** Bonding and Insurance Coverage
- **Assurance** of Experienced Personnel
- **Competitive** Pricing
- **Equitable** Terms and Conditions; Acceptance of Flowdowns
- **History** of On-Budget Delivery
- **On Time** Delivery and Schedule Management
- **Preference** for SBA Certification Status for Subcontracting Goals
Project Integrator Framework for Detailed Feasibility Studies

It starts with the Agency’s collaboration during the Initial Feasibility Study to identify Design Intent.

1. Required Scope
2. Buildings or Areas to Study
3. Challenge or Energy Reduction Goals
4. Determine Cost Estimate

With the issuance of a Task Order for a DFS, CNE’s in house Engineers investigate and develop Energy Conservation Measures that are identified through:

1. Conditions found during a site investigation and data provided by the Agency
2. Needs stated by the customer
3. Regulatory or Code Requirements

At a Mid-Point Stage of the Feasibility Study the Agency and Constellation meet to determine ECM selections.

After selection, CNE further develops scopes of work, certain equipment selections and seeks quotes from qualified subcontractors.

The DFS Concludes with an Engineering Design demonstrating a project at an approximate 30% Design Development level.

1. This provides for “sufficient detail to evaluate major design features prior to advancing to the design/build phase”.

Constellation
An Exelon Company
Easy and Trusted Financing Process

- CNE obtains firm, competitive rates from five previously vetted Lenders.
- Rate is related to that available from a Treasury Bill and the term length aligns with the of the project.
- Most competitive rate/terms vetted and selected by the Agency.
- The project cash flow and savings include the selected rate.
- CNE and the Lender prepare the Financing Documents and Coordinate with the Utility and Agency
Detailed Feasibility Study Issued – Now What

A Detailed Feasibility Study is a Proposal Containing:

- Pricing
- Design
- Finance Rate
- Escalation
- Scopes of Work
- Schedule
- Contractor Selection
- Equipment Selection
- Savings
- Payback
- Expiration Date of Pricing

A change in any of these factors will change everything!
Next Steps

• Identify the Project Goals and Gather Data for:
  • Required Scope
  • Buildings or Areas to Study
  • Challenge or Energy Reduction Goals

The Utility will Work with its Qualified ESCOs to Start the Process.
Or, an ESCOs Can Work with Utilities to Initiate the Process.

• Initiate a Preliminary Assessment or Initial Feasibility Study to Identify the Project Conditions found during a site investigation and data provided
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Questions

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