Utah Data Center (UDC)

Sandy Ferguson
Troy Lange
Carlen Capenos

Presented in Salt Lake City, Utah
13 November 2009
Agenda

- 8:00 am    Sign in Begin
- 9:00 am    Presentation  (Collect Written Questions)
- 10:00 am   Industry Networking
- 11:00 am   Answer Written Questions
- 12:00 pm   Lunch
- 1:15 pm    Buses Depart  (No Privately Owned Vehicles)
              Tour Site
- 3:00 pm    Arrive Back at Hotel for Wrap Up
~ 4:00 pm    Conclusion
Purpose

- Generate Interest in the Utah Data Center (UDC)
- Networking Opportunity for Large and Small Firms
- Discuss the Acquisition Strategy
Rules of Engagement

- Place electronic devices on vibrate
- Please leave the room if you must take a call
- Recording the presentation is prohibited
- Submit questions in writing on cards provided
- Presentation, attendees and Q&A will be published on web
- Today’s briefing is based on current concepts and may be subject to change
# UDC Project Delivery Team

<table>
<thead>
<tr>
<th>Project Mgmt Office, NSA</th>
<th>US Army Corps of Engineers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Client Requirements</strong></td>
<td><strong>Baltimore District</strong></td>
</tr>
<tr>
<td>▪ Troy Lange</td>
<td>▪ Acquisition and Contracting</td>
</tr>
<tr>
<td>▪ George Ruo</td>
<td>▪ Randy Winemiller</td>
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<tr>
<td>▪ Tom Noonan</td>
<td>▪ Sandy Ferguson</td>
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<tr>
<td>▪ Matt Boren</td>
<td>▪ Tim Mathews</td>
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<tr>
<td>▪ Carolyn Whitaker</td>
<td>▪ Russ Marsh</td>
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<tr>
<td></td>
<td>▪ Carlen Capenos</td>
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</tbody>
</table>

|                          | **Sacramento District**    |
|                          | ▪ Construction Execution   |
|                          | ▪ Norbert Suter            |
|                          | ▪ Tim Willard              |
|                          | ▪ Dave Smeraldo            |
|                          | ▪ Steve Gladwell           |
|                          | ▪ Jerry Iacopini           |

### Parsons –
Contracted support to PMO for technical issues

### Black & Veatch/Louis Berger Group JV –
Contracted support to USACE for A/E and RFP development

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BUILDING STRONG®
UDC Overview

- Customer – Intelligence Community
- Executive Agent – NSA
- Contracting / Construction Agent – USACE
- Over $1B Military Construction (MILCON)
- Driver for this Procurement is SCHEDULE
- Design / Build, Firm Fixed Price
Camp Williams, Utah
Conceptual Site Layout

- Bluffdale City
- Beef Hollow Road
- Watts Road
- Southern Boundary
- Camp Williams Garrison Area
- Future Mountain View Corridor Right of Way
- Lehi City

Approx 207 Acres
Conceptual Site Plan
Project Specifics

- 65 Mega Watts Technical Load to the Raised Floor
  - Average load density: 650 watts/square feet (sf)
  - Maximum load density: 1600 watts/sf
- 100,000 sf of Raised Floor in 4 Data Halls
- Tier III Data Center Standard, Concurrently Maintainable
- Flexible Cooling to Data Hall IT Rooms: Water and Air
  - Air: 250 watts/sf
  - Water: 1600 watts/sf
- Clean Agent Fire Suppression for Data Halls
- Redundant Utilities, 100% Generator & UPS Backup
- Mechanical & Electrical Support Structures
Project Specifics (continued)

- 2 Substations
- Goal LEED Silver, Other Green Technologies Stressed
- Water usage at full load is approx 1.7 million gal/day
- Thermal energy storage tanks
- 3 days of fuel storage
- Piping distribution will be primary and secondary
- Secondary pumps will be on UPS
- Cooling towers shall be Cooling Technology Institute (CTI) certified or built up
UDC Requirements*

- Must comply with:
  - IBC – International Building Code
  - UFC – Unified Facilities Criteria
  - NFPA – National Fire Protection Association
  - UFGS – Unified Facilities Guide Specifications
  - All Local, State and Federal Codes

- Plus Executive Agent standards:
  - Facility Engineering Electrical Standards (FEES)
  - Facility Engineering Mechanical Standards (FEMS)
  - Intelligence Community Standards
  - Can deviate if justified and with express consent of PMO

* Most Stringent of Codes / Standards Apply
Data Hall Requirements

- Four 25,000 sf data halls:
  - Each data hall will be subdivided by firewalls into two IT equipment rooms
  - Each IT equipment room considered a separate electrical & fire zone

- Power requirements:
  - Total for all data halls: 65 MW technical power
  - For flexibility, each data hall will have up to 18.75 MW technical power

- Electrical connections to equipment:
  - Space provisions for under-floor and overhead connections to equipment
  - ~90% of the connections at 480/277V; most at 80A-150A
  - ~10% of the connections at 208/120V - 300 kVA PDUs on raised floor
Data Hall Requirements (continued)

- Open ceiling return
- Looped secondary pipe mains
- Down flow CRAC (CRAH) units with MERV 8 Filtration
- Main piping not to interfere with under floor air distribution
- Independent Central Station AHU with MERV 13 filtration for each data hall

CRAC (CRAH): Computer Room Air Conditioner (Handler)
MERV: Minimum Efficiency Reporting Value
AHU: Air Handling Unit
Conceptual Data Hall Layout
Security Considerations

- Must be US citizens
- US owned firms only
- All employees will be vetted
- Jobsite will have Government access controls
- Large portion of the project will be SCIF construction
- AT/FP medium level w/ 400 foot exclusion standoff zone
- Fence rating of DoS K-12 anti-ram, IDS, cameras, CBRN

AT/FP: Anti-Terrorism / Force Protection
DoS: Department of State
IDS: Intrusion Detection System
SCIF: Sensitive Compartmented Information Facility
CBRN: Chemical Biological Radiological, and Nuclear
Operational Considerations

A portion of the facility will be completed and come online prior to completion of the entire project, therefore:

► Operational portions cannot be disrupted
► Physical separation required with internal fence
► Access to operational side will require escorts
Acquisition Considerations

- Munitions and Explosives of Concern (MEC) remediation completed to 24” depth
- “Low Probability” stand by construction support will be required for all soil disturbance activities
- D/B will coordinate with Hill AFB for UXO response
- NEPA/EA Finding of No Significant Impact (FONSI) signed
- Stipend is being considered for ‘Step 2’ Firms
- Bond amount currently under review

NEPA/EA: National Environmental Policy Act / Environmental Assessment
## Data Center RFP

<table>
<thead>
<tr>
<th>Solicitation Type</th>
<th>Best Value (Trade-Off)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFP</td>
<td>‘Two-Step’ Design-Build Procurement</td>
</tr>
<tr>
<td>Bonding Requirements</td>
<td>Under review</td>
</tr>
<tr>
<td>Funding</td>
<td>Incremental. Specified in solicitation.</td>
</tr>
<tr>
<td>Solicitation Schedule</td>
<td>‘Step 1’ Advanced Notice: Dec 2009</td>
</tr>
<tr>
<td></td>
<td>‘Step 1’ Proposal Due: Jan 2010</td>
</tr>
<tr>
<td></td>
<td>‘Step 1’ Selected Contractors: Feb 2010</td>
</tr>
<tr>
<td></td>
<td>RFP (‘Step 1’ Selected Contractors): Mar 2010</td>
</tr>
<tr>
<td></td>
<td>Proposals Due: July 2010</td>
</tr>
<tr>
<td></td>
<td>Contract Award: Oct 2010</td>
</tr>
<tr>
<td>Contract Duration</td>
<td>~600 calendar days. Offerors can specify a shorter time of performance.</td>
</tr>
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</table>
# Data Center Submission ‘Step 1’

## Anticipated Submission Requirements:
- Technical approach

- Technical qualifications that may include:
  - US owned firms only
  - Specialized experience and technical competence
  - Capability to perform to include size and scope of this project
  - Past performance of the offeror’s team (including the A/E and construction members)

- Demonstrated ability to meet/exceed aggressive schedule(s)

## Evaluation Process:
- Technical Qualifications: All technical factors will be adjectivally rated
- Trade-Off Analysis:
  - All factors considered to determine “best value” for selection to ‘Step 2’
- Discussions: The intent is to select ‘Step 2’ offerors without further discussions
- Selection: The Government intends to select three to five firms for ‘Step 2’
Data Center Submission ‘Step 2’

<table>
<thead>
<tr>
<th>Anticipated Submission Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Volume I  -  Technical proposal</td>
</tr>
<tr>
<td>• Volume II -  Cost Proposal</td>
</tr>
<tr>
<td>• Volume III - Subcontracting Plan</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Anticipated Evaluation Process:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Technical Qualifications: All technical factors will be adjectivally rated</td>
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<tr>
<td>• Price/Cost: Will be evaluated for reasonableness</td>
</tr>
<tr>
<td>• Trade-Off Analysis: All factors considered to determine “best value” to the Gov’nt</td>
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<tr>
<td>– Proposed schedule most heavily weighted factor</td>
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<tr>
<td>• Oral Presentations are being considered</td>
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<td>• Discussions: May be necessary</td>
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<thead>
<tr>
<th>Anticipated Subcontracting Plan:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Initial Plan: Submitted to demonstrate Small Business compliance</td>
</tr>
<tr>
<td>• Final Plan: Revised as needed to ensure acceptability and compliance</td>
</tr>
<tr>
<td>– Failure to negotiate an acceptable plan will make the offer ineligible for award of the contract</td>
</tr>
<tr>
<td>• Subcontracting Participation Plan being considered</td>
</tr>
</tbody>
</table>
## Potential Technical Factors

<table>
<thead>
<tr>
<th>Factor 1: Experience and Past Performance on Large Projects</th>
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<tbody>
<tr>
<td>• Three to five projects</td>
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<tr>
<td>• Large complex Design-Build projects</td>
</tr>
<tr>
<td>• 500,000+ SF and completed in last 7 years</td>
</tr>
<tr>
<td>• Performance evaluations on projects for this factor</td>
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</table>

<table>
<thead>
<tr>
<th>Factor 2: Experience and Past Performance on Similar Projects</th>
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<tbody>
<tr>
<td>• Similar projects that include data centers</td>
</tr>
<tr>
<td>• If data center experience does not exist, demonstrate ability to construct data centers</td>
</tr>
<tr>
<td>• Performance evaluation on projects for this factor</td>
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<tr>
<th>Factor 3: Schedule</th>
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</thead>
<tbody>
<tr>
<td>• Demonstrate ability to meet or exceed aggressive schedules on D-B contracts</td>
</tr>
<tr>
<td>• Feature of work schedule</td>
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</tbody>
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<thead>
<tr>
<th>Factor 4: Project Management Plan</th>
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</thead>
<tbody>
<tr>
<td>• Technical approach</td>
</tr>
<tr>
<td>• Project team</td>
</tr>
<tr>
<td>• Commissioning firm</td>
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</tbody>
</table>
Subcontracting Plan

<table>
<thead>
<tr>
<th>Category</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Business</td>
<td>70%</td>
</tr>
<tr>
<td>Small Disadvantage Business</td>
<td>6.2%</td>
</tr>
<tr>
<td>Women – Owned Small Business</td>
<td>7.0%</td>
</tr>
<tr>
<td>HUB Zones Small Business</td>
<td>9.8%</td>
</tr>
<tr>
<td>Service-Disabled Veteran-Owned Small Businesses</td>
<td>0.9%</td>
</tr>
<tr>
<td>Veteran–Owned Small Businesses</td>
<td>3.0%</td>
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</tbody>
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Additional Opportunities

- Contracts for bringing utilities to the site

  - Power
    - Rocky Mountain Power

  - Water
    - Bluffdale City Potable and possibly Secondary Water
    - Jordan Valley Water Conservancy District – Aqueduct

  - Waste Water
    - South Valley Sewer District
Complete Question Cards

- Pass to the attendants
- Turn in at registration desk
- Please be seated at 1100 a.m.
- Q & A will continue after site visit
- All Q & A will be posted on website:
  
  https://www.fbo.gov/

  search for “W912DR09S0012”
Agenda

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- 11:00 am Answer Written Questions
- 12:00 pm Lunch
- 1:15 pm  Buses Depart  (No Privately Owned Vehicles)
           Tour Site
- 3:00 pm  Arrive Back at Hotel for Wrap Up
- 4:30 pm  Conclusion
Approx On Site Briefing Location
Site Visit Orientation (Facing South)

- Canal
- Bus stop
- AT&T tower
- Watts Road
- Beef Hollow Road
- Corner of Watts and Beef Hollow Roads
- Future Mountain View Corridor Right of Way
- Southern Boundary
- Right of Way
- Right of Way

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Federal Business Opportunities

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  Search: “W912DR09S0012”

- This briefing
- Roster of attendees
- Appropriate questions & answers

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