

Army Corps of Engineers Enhanced Use Leasing and the Data Center Value Proposition

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U.S. Army Corps of Engineers Enhanced Use Leasing Program

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and the Nation
now and in the future...*

<http://eul.army.mil>

What is EUL?

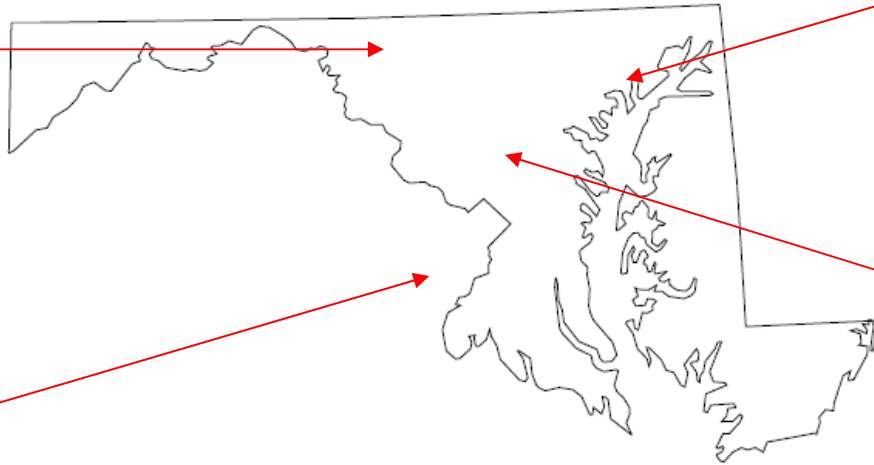
- Enhanced Use Lease
- Title 10 Section 2667 of the United States Code
- Allows Department of Defense Installations to lease non excess real estate assets
- Energy, Office Parks, Industrial Centers, Hot Weather Test Track

What is EUL?

- Property in all fifty states
- Create Value for the Army through rent through In Kind Consideration
- Helps offset declining maintenance and service budgets on military installations
- Addresses UFRs (Un-Funded-Requests)
 - Principle target

Where Are We?

Fort Detrick
(Existing Chevron CUP)



Aberdeen Proving Ground
(Existing EUL with OPUS)

Fort Meade
Trammel Crow Selected Developer

Fort Belvoir

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EUL Highlights

- 10 Leases signed – Revenue over lease term \$1.1 Billion
- 9 Leases in negotiation – project revenue \$1.3 Billion
- Average Present Value of Leases vs. Appraisal Value 5.45 times

EUL Highlights

- 2008 National Council for Public Private Partnerships Award for Distinguished Public-Private Partnership Infrastructure Award
 - Fort Detrick Co-Generation Facility Maryland
- EUL Program one of 3 finalists for 2007 GSA Achievement Award for Real Property Innovation, Asset Management Category

Who Do We Work With?

Hewlett Packard

EYP Mission Critical

Siemens Energy Solutions

Chevron Energy Solutions

General Motors

Trammel Crow

Opus Weston/LCOR

Jim Wilson Associates

Beztak

Weston/Orion

Keenan Development

Value Proposition

Inherent Security on Army Installations

- “Behind the Fence”
- 24 Hour access granted

Attractive locations for DoD End Users

- BRAC effect
- DoD research tenants (R&D, BSL 3&4 Laboratories)
- Inherent Security
- NSA and contractors to occupy the Fort Meade EUL

Low Power Rates For Federal Tenants and EUL partners

- Some installations achieve 6 cents/Kwh

Developments of Scale

- EUL has over 10 Million Sq feet of office and commercial space currently under development
- Main tenants are military research and design firms

Value Proposition

Currently the two robust growth models for real estate:

- Data Centers
- Energy related projects
 - Traditional
 - Co-Gen, Natural Gas, Coal
 - Non- Traditional
 - Solar, wind, geothermal, biomass

We believe there is a convergence!!!

Value Proposition

Greening of Datacenters

- EUL is Army has been chosen as a contract vehicle for renewable and traditional energy projects
- Watervliet Arsenal
 - Biomass Component
 - Potential Tax Credits
- Fort Irwin California
 - Advertised 500 MW solar facility
 - Potential Data Center Co-Location

Value Proposition

Army initiative to increase and secure energy

- Green initiative to increase renewable generation on post
- Islanding and security measures to include on base generation and micro grids
 - Will remain powered up through commercial black outs
- To achieve economies of scale energy developers are looking to high energy users datacenters, manufacturing and industrial applications

LEED Data Centers

- Entitlement process with LEED designs expedited
- DoD to green existing and upcoming Data Centers

RECENT SUCCESS

WATERVLIET ARSENAL

- Source Selection Award Issued to Developer on December 2nd 2008
- EYP Mission Critical
 - High density Research Center
 - 100, 000 square foot Data Center
- Siemens Business Technologies
 - Co-Gen-Replace existing boiler
 - Bio-Mass-Meet Green Requirements

Watervliet Arsenal



Watervliet Arsenal

Long Term

- 100,000 SF Data Center
- New Co-Gen Power Plant
 - Affordable Bio-Mass Energy
 - Redundant Off-Grid Power
- Single or Multi-Tenant
- 24+ Month Development Cycle



Short Term

- 15,000 SF Raised Floor Available
- Tier 3 Capable w/ Existing Infrastructure
- 9-12 Month Availability
- Current Nanotech & Cleanroom Neighbors



Why Now?

- Current Federal Buying Atmosphere
 - Federal Acquisition not conducive to “Speed to Market”
 - IT space requirements have a “Just in Time” development expectation
 - Stimulus and recovery dollars intended for down payment, not total cost
- Federal shift from traditional real estate ownership, to varied forms of off-sheet financing
 - Build to Suit and Design/Build Lease-Back
 - Hosting & Collocation
 - Outsourcing & MSAs
- Dynamic of Current Data Center Marketplace
 - 85% of data center stock pre-2000 is obsolete
 - Enterprise Expansions
 - Upgrades & Refreshes
 - Consolidations/Transformations

Why Private Sector Data Centers on DoD Sites?

- Location, Location, Location
 - Defense Contractors and DoD End Users Prefer Military Installations
 - Security / ATRP measures – Low to No Profile
 - Limited Staff / Limited Access
- Infrastructure
 - Inherent Redundancy via Dedicated Base Energy Source
 - Robust Utility Distribution and Backup Power
 - Secure telecom distribution
 - Underwriting of cogeneration expansion enhanced by data center off-use
 - Roads, access, parking, sometimes even building shells already in place
- Other Advantages
 - Collocation with other related DoD tenants & missions
 - Workforce
 - Skilled O&M Staff
 - Transitional Opportunities for Retiring Military
 - Tax incentives and availability of federal matching grants

HP's Own Data Center "Transformation"

- Consolidating 85 data centers into 6 global ones:
 - ~60% reduction in annual energy use through thermal mapping, virtualization, technology refresh and densification, enough electricity to power all homes in Palo Alto for more than a year
 - 80% more processing power with 30% fewer servers
 - Reduced the data storage costs while doubling the capacity
- 3 Geographical zones in U.S. chosen for:
 - Proximity to fiber optic backbones/multiple power grids
 - 200K SF "white space" used, a 10% reduction
- Within each zone:
 - 2 sites within 10-25 mile radius of each other
 - Each site Tier III
 - Each site designed for 3 levels of availability and continuity service

HP data center transformation: business outcomes by end of 2008

Less

=

More

- 30% fewer servers, ~60% reduction in annual energy use
- Decreased storage cost
- 50% lower networking cost
- 60% retirement of legacy apps
- Fewer sites, 10% less floor space
- Less HP IT cost

- 80% more processing power
- Double the storage (replicated)
- Triple the bandwidth
- Global applications
- Faster application rollout with availability and continuity integrated with data center
- More capability

HP's CFS Value Proposition

- Define facilities needs & identify options
- Determine appropriate, competitive, and potentially game-changing approach
- Package facilities team to deliver approach, based on:
 - Delivery model – purchase, lease, collocate, etc.
 - Components necessary – contractors, designers, subs, etc.
 - Appropriateness to task – size, scale, locale, experience, etc.
- Be the “Trusted Advisor” to users in the marketplace

Our Unique Position in the Marketplace

Work with every major player in data center development:

- Collocation and Hosting Companies (Terremark, DRT, Savvis)
- Data Center RE Developers (DuPont Fabros, JLL, PowerLoft)
- Contractors and CMs (Clark, Holder, Gilbane)
- Systems Integrators (Lockheed Martin, SAIC, GD)
- MSA providers (CSC, EDS, Unisys)
- Architects/Engineers (P+W, Gensler, HOK)
- Program Managers/Reps (Parsons, BAH, Mark Anderson)
- IT Service Providers (Lee Technologies, Fortress)
- Manufacturers / Energy Providers (APC, Eaton, Siemens)

EUL PROCESS

Project Identification

- Army Installation Identified
- A “Float Test” is performed
 - Market conditions tested
 - Assets assessed
 - Checklist for uses now included data center potential

EUL Process

Industry Forum

- Industry Forum
 - We invite members of the private business community
 - A tour of the site and overview of the process is given
 - Master Developers and Interested Parties are encouraged to network and form teams
 - Technology specific companies encouraged to attend

EUL PROCESS

Source Selection

- Source Selection
 - Team submit proposals according to NOL (RFQ) direction
 - Independent consultant review
 - Proposals are presented in front of Source Selection board
 - Selection is made

EUL Process

Lease and Management Plan

- Kick off meeting
- Lease and Management Plan
 - Overview of proposed development and time lines established
- Negotiations of Master Agreement to Lease (MAL)
 - Guideline for site specific leases
- Negotiation of Site Specific Lease (SSL)

EUL Process Finalizing

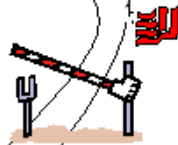
- Settlement
- Army Corps is Responsible for lease management
- Escrow account established for in kind services

EUL Process Map

Identify Assets



Market Analysis



Notice of Lease (RFQ)



Industry Forum



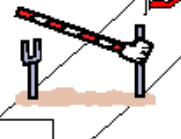
Proposals Received



Source Selection



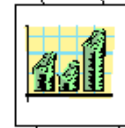
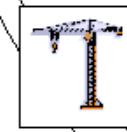
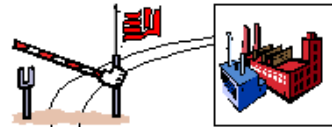
Lease and Management Plan



Negotiation of Enhanced Use Lease



Execution and Development



HOW LONG????

- 18 months to 3 years to Execute Master Lease Agreements
 - Environmental
 - Lease negotiations
 - Special Circumstances
 - TIFs
 - PILOT
 - Federal and State Interaction

Accessibility? Security? Ownership?

- The ownership of the buildings and all contained remains with the developer
- Security is the same that is provided to our military installations “inside the gate”
 - Locations outside the gate available as well
- 24 hour access
 - Most installations during 9/11 were closed for 48 hours or less

Fort Detrick Cogeneration Facility

- Power reliability up to “five nines” reliability
- 70 Mega watt capacity
- Chilled water and steam outputs
- Off take electric rate less than private market
- Generation of chilled water and steam
- Online 10-2007 and operational
- Start of EUL to Online under three years

Fort Detrick



Redstone Arsenal

Huntsville Alabama

- 4.5 Million square feet of office and lab space
 - Servicing Redstone Weapons research
 - NASA Huntsville operations
 - 470+ Acres
 - Hi-Tech and research campus and training facility
 - Projected clients General Dynamics, Northrup Grumman, Raytheon,
 - Projected demand for Data Centers
- Payment in Lieu of Taxes
- Tax Increment Financing of 45 Million to assist
 - Infrastructure
 - Utilities
 - Fiber Over Haul
 - Electrical Substation improvement

Upcoming Industry Forums

- **West Point, Highland Falls, NY**
 - Industry Forum, April 23rd
- **Sierra Army Depot, Herlong, CA**
 - Projected Industry Forum, May 2009
- **Fort Stewart, Savannah, GA**
 - Projected Industry Forum, May 15th
- **Los Alamitos, Long Beach CA**
 - Projected Industry Forum, June 2009

Future EUL

- **Fort Irwin, Barstow, CA**
 - **Proposals DUE!!!!**

- **Fort Knox, Radcliff, KY**
 - **Industry Forum, April 29th**

- **Fort Lee, Virginia**
 - **Projected Industry Forum, late Spring**

- **Fort Benning, Georgia**
 - **Projected Industry Forum, late Spring**

How to Get Involved

- Visit <http://eul.army.mil>
 - Attend our Industry Forums
 - Join a master developer
 - Propose your own
 - Remember the NOL = 's RFQ
 - Ask us about an installation
 - Interested in your local installation?
 - Review current projects
 - Leverage current developments
 - Connect with developments in process