Managing Energy Consumption and Sustainability in Federally Leased Space

PBS Green Lease / Sustainability Requirements

October 28, 2015
J. Kenneth Schelbert, Director
Lease Policy, Strategy and Delegations Division
Office of Leasing
• When we discuss leased assets, we are referring to contracts to occupy space, not buildings.

• Most GSA leases are for fractional space within a building.

• Even when GSA leases all available rentable square footage in the building, we typically do not control mechanical and other support space.

• The greater the proportional size of the lease in any given building, the greater the opportunity to implement sustainability measures.
## Distinguishing Federal from Commercial Leases

<table>
<thead>
<tr>
<th>Category</th>
<th>Commercial</th>
<th>Federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bearing of Risk</td>
<td>Lessee</td>
<td>Lessor</td>
</tr>
<tr>
<td>Legal Governance</td>
<td>State Law</td>
<td>Federal Law</td>
</tr>
<tr>
<td>Contractual Instrument</td>
<td>Lessor</td>
<td>Lessee</td>
</tr>
<tr>
<td>Right to Occupancy</td>
<td>None - Eviction</td>
<td>Holdover – Eminent Domain</td>
</tr>
<tr>
<td>Procurement</td>
<td>Individual Preferences</td>
<td>Award Factors – Lowest Price, Technically Acceptable or Source Selection</td>
</tr>
<tr>
<td>Requirements</td>
<td>Corporate Branding - Individual Preferences</td>
<td>Federal Standards – Agency Mission</td>
</tr>
<tr>
<td>Funding</td>
<td>Private Funds</td>
<td>Public Funds</td>
</tr>
<tr>
<td>Codes and Standards</td>
<td>Local Codes (e.g. fire and life safety, local ordinances, etc.)</td>
<td>Federal Codes (e.g., fire and life safety, tenant substitution, casualty, security, etc.)</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Boards of Directors, Corporate Officers</td>
<td>Congress, OMB, Client Agencies</td>
</tr>
<tr>
<td>Financing</td>
<td>Corporate Funds – Lenders (underwriting)</td>
<td>Appropriations - Scoring</td>
</tr>
</tbody>
</table>
### GSA Leased Inventory Profile

<table>
<thead>
<tr>
<th>Metric</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Leases</td>
<td>8,483</td>
</tr>
<tr>
<td>Number of Buildings</td>
<td>6,892</td>
</tr>
<tr>
<td>Leased Rentable Square Feet</td>
<td>195.27 Million rsf</td>
</tr>
<tr>
<td>Average Size Lease</td>
<td>23,019 rsf</td>
</tr>
<tr>
<td>Median Size Lease</td>
<td>8,088 rsf</td>
</tr>
<tr>
<td>Median Rent</td>
<td>$24.20</td>
</tr>
<tr>
<td>Geographic Distribution of Leases**</td>
<td>49% in Large Towns (Pop = 500K +)</td>
</tr>
<tr>
<td></td>
<td>12% in Mid-Sized Towns (Pop. = 250 – 499K)</td>
</tr>
<tr>
<td></td>
<td>39% in Small Towns (Pop.&lt;250K)</td>
</tr>
<tr>
<td>Percentage of Government Tenancy Within Leased Building</td>
<td>In 23% of (#) Leases, GSA = 95–100% Tenant</td>
</tr>
<tr>
<td></td>
<td>In 16% of (#) Leases, GSA = 26-94% Tenant</td>
</tr>
<tr>
<td></td>
<td>In 61% of (#) Leases, GSA = &lt;25% Tenant</td>
</tr>
</tbody>
</table>

* REXUS August 2015  ** US Census county-level data
Leased Inventory Profile by % of Government Occupancy Within a Leased Building

**Full Building Occupancy (95-100%)**

- 28% of Total # of Buildings
- 1,963 out of 6,892 Bldgs.
- Median size = 13,082 RSF
- 93% = Fully Serviced; 7% Net Util.

**Partial Occupancy/ Mid-Sized Tenant (26-94%)**

- 19% of Total # of Bldgs.
- 1,275 out of 6,892 Bldgs.
- Median size = 13,455 RSF
- 94% = Fully Serviced; 6% Net Util.

**Minority Tenant Occupancy (<= 25%)**

- 53% of Total # of Buildings
- 3,654 out of 6,892 Bldgs.
- Median size = 5,505 RSF
- 95% = Fully Serviced; 5% Net Util.
Leased Inventory Profile by % of Government Occupancy Within a Leased Building

Full Building Occupancy (95-100%)

- 23% of Total # of Leases
- 1,972 out of 8,483 Leases
- Median size = 13,082 RSF
- 93% = Fully Serviced; 7% Net Util.

Partial Occupancy/ Mid-Sized Tenant (26-94%)

- 16% Total # of Leases
- 1,339 out of 8,483 Leases
- Median Size = 13,455 RSF
- 94% = Fully Serviced; 6% Net Util.

Minority Tenant Occupancy (<= 25%)

- 61% of Total # of Leases
- 5,172 out of 8,483 Leases.
- Median size = 5,505 RSF
- 95% = Fully Serviced; 5% Net Util.
Leased Inventory Profile by % of Government Occupancy Within a Leased Building

**Full Building Occupancy (95-100%)**

- 43% of Total RSF
- 84.68 mil. out of 195.27 mil. RSF
- Median size = 13,082 RSF
- 93% = Fully Serviced; 7% Net Util.

**Partial Occupancy/ Mid-Sized Tenant (26-94%)**

- 24% of Total RSF
- 64.76 mil out of 195.27 mil RSF
- Median size = 13,455 RSF
- 94% = Fully Serviced; 6% Net Util.

**Minority Tenant Occupancy (<= 25%)**

- 33% of Total RSF
- 64.76 mil out of 195.27 mil RSF
- Median size = 5,505RSF
- 95% = Fully Serviced; 5% Net Util.
Office of Leasing Sustainability Initiatives

**Net of Utility Leases Pilots**
- Examine utility consumption and costs as a sample of leases are shifted from F.S. to Net of Utilities, or from GSA to Tenant paying utilities
- Have offerors provide utility rates for both F.S. And Net of Utilities

**Utility Consumption Reporting**
- Developing and testing process for lessors to report energy and water consumption data on a monthly basis
- Lease language changed to make this mandatory

**First Fuel Pilots**
- “Rapid Building Assessments”/Virtual Energy Audits being applied to 7 leased buildings
- Develop guidance/best practices related to common findings

**Green Language Changes**
- Recently modified green specs related to Key Sustainable Product standards
- Language changes pending – related to new E.O. + Energy Act
- Language changes pending – related to LEED v4, GG, LBC

**Guiding Principle Compliance**
- Provide clear guidance for “culprit clauses”
- New Guiding Principles in Oct. 2015 – lease language will change in response

**Outreach/Training**
- Collaborate with private-sector, other agencies, industry experts on green leasing issues
- Regular “Industry Days/Roundtables”, webinar training, etc.
Commissioner Dong’s goal for consistency among PBS business lines -- with top 10 green products

- Lease Acquisition Circular issued April 2015
- Language now reflected in May 2015 lease models

- 9 of 10 KSPs apply to Leasing
- Gypsum board and Concrete represent new green clauses
- Ceiling Tile and Concrete apply to New Lease Construction only
Green Lease Language Modifications

**Key Sustainable Products**
- PBS Consistency
- LAC Issued April 2015
- KSP language is reflected in new May 2015 lease models

**E.O. 13693 + Energy Efficiency Improvement Act**
- New E.O. on Sustainability (March 2015)
- Energy Efficiency Act (April 2015)

**LEED v4, Green Globes, Rating System Updates**
- LEED v4 mandatory date: October 2016
- Cost study D&C
- Green Globes/ Living Bldg. Challenge+ GPs

**Guiding Principles Changes**
- New GPs – October 2015
- Lease language will align with new GPs

**Energy Efficiency Performance Criteria or Source Selection Factor**
- All new solicitations over 10,000 RSF require energy efficiency either as a required performance criterion or as a source selection factor in best-value tradeoff procurement
- Leasing is using the existing Energy Star requirement or cost-effective improvement provision in the lease document to be equivalent to this “criteria for energy efficiency as a required performance specification”

**Energy Disclosure**
- Lessors are required to disclose carbon emissions and/or energy consumption data for the leased spaces over 10,000 RSF via sub-metering or estimation from pro-rated occupancy data
- Office of Leasing is developing a process to track and report energy consumption by lessors. Testing to begin in August 2015.

**Guiding Principle Targets**
- Revised Guiding Principles will be issued within 150 days of the new E.O. (by late Aug. 2015); Implementing instructions to be provided with 45 days (by May 2015)
- While the EO provision addressing Guiding Principles is silent on leases, the proposed revisions to the GPs that GSA and DOE submitted to CEQ last year did include GPs for leases
- Leasing is estimating that an FY 2016 GP target will increase from 18% (in FY15) to a range of 20-22%

**Optimize Space Usage + Consider Existing Transp.+ Infrastructure**
- Implementing Instructions from EO 13514 is kept under this E.O. – CEQ can revise. Focus on an appropriate balance of sustainability, cost, and security.
Matrix of Green Clauses that Align With the Guiding Principles: Modifications Pending Per the New GPs

external PBS Portal GREX - Docs/Sustainability or GSA internal NOL Google Site

<table>
<thead>
<tr>
<th>LEASE DOCUMENT (Standard)</th>
<th>LEASE DOCUMENT (Streamlined)</th>
<th>LEASE DOCUMENT (Succeeded/Superseding)</th>
<th>LEASE DOCUMENT (Simplified)</th>
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**Legend:**
- **Standard:** Detailed clauses that provide comprehensive guidance.
- **Streamlined:** Simplified clauses that focus on core aspects.
- **Succeeded/Superseding:** Clauses that replace or amend previous ones.
- **Simplified:** Further streamlined for ease of review.

**Note:** Modifications pending per the new GPs.
Energy Disclosure/Benchmarking Jurisdictions

U.S. Building Benchmarking and Transparency Policies

- Commercial policy adopted
- Commercial & multifamily policy adopted
- Public buildings benchmarked
- Single-family transparency adopted

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According to a 2012 EPA analysis, buildings that used Portfolio Manager to track energy usage between 2008 and 2011 realized an annual energy savings of 2.4% and a total energy savings of 7.0%.

Based on a 2015 “Resources for the Future” Study, Benchmarking and Transparency laws correlated with 3% lower utility expenses in private office buildings.

Utility Consumption Reporting Process

1. Adjust Lease Language to Make Utility Reporting Mandatory for 10,000+ Leases
3. Lessors Populate Consumption Data in EPA’s Portfolio Manager Tool
4. Adjust Data for Partial Building Occupancies
5. Regularly Report Utility Data to GSA and Provide Annual GHG Estimates
Upon the effective date of the Lease, only for leases over 10,000 RSF, the Lessor shall provide regular quarterly reports for the amount of utilities (including water) consumed at the Building broken down by utility type per month for the duration of the Lease. Lessors shall report this utility consumption data within 45 calendar days of the end of each calendar quarter. Data reported includes, but is not limited to, the number of actual units consumed, by utility type per month, and associated start and end date(s) for that consumption.
### UCR Testing by Pilot Group

<table>
<thead>
<tr>
<th>Universe of Leases</th>
<th>RSF</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,500 Total Leases (As of Jan 2015 REXUS Data)</td>
<td>195,650,597</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,036 Leases w/ UCR Clause (Jan. 2013)</td>
<td>22,492,987 (100%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Pilot Group - 64 Leases Full Occupancy; &gt;= 50K RSF</td>
<td>10,726,293 (48%)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Pilot Group - 19 Leases Partial Occupancy; &gt;= 50K RSF</td>
<td>1,948,462 (9%)</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>3rd Pilot Group - 70 Leases All Occupancy; &lt;50K &amp; &gt;=30K RSF</td>
<td>2,701,400 (12%)</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>New Leases (covered by the EO) All Occupancy; &gt;= 10K RSF</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

- Tenant Star
- Model Commercial Leasing Provisions
- Federal Tenant Benchmarking
- Separate Spaces Study
### Model Commercial Leasing Provisions (Section 301)

| GSA (with DOE) shall develop model leasing provisions and best practices to encourage commercial bldg. owners + tenants to invest in cost-effective energy + water efficiency measures | GSA shall periodically publish the model commercial leasing provisions with explanatory materials to encourage private-sector use of the efficiency measures in leases | GSA shall make provisions and best practices available to State, county, and municipal governments – with the goal of encouraging investment in cost effective energy + water efficient measures | GSA shall develop policies and practices to implement cost-effective energy + water efficient measures for realty services it provides to other Federal agencies |

- Use existing GSA RLP + Lease as model commercial provisions (MCP)
- Modify existing GSA lease language for commercial landlord application
- Reach out to DOE for input
- Publish Draft MCP in Federal Register
- Public Comment Period (prior to Fed. Reg.)
- Publish in Federal Register
- Research/Develop Leasing Provisions
- "Issue Info. Collection Request" PBS Issuance Process for New
- Public Comment Period
- Publish in Federal Register

Timeline:
- May 2015
- June 2015
- July 2015
- Aug 2015
- Sept 2015
- Oct 2015
- FY 2016
### GSA’s Leased Portfolio by # of Leases

- **95% of GSA’s leases are Fully Serviced**
- **5% of GSA’s leases are Non-Fully Serviced**

#### Fully Serviced vs. Net of Utilities Leases

<table>
<thead>
<tr>
<th>Lease Type</th>
<th>Risk Burden</th>
<th>Utility Payment</th>
<th>Lease Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully Serviced</td>
<td>Landlord</td>
<td>Tenant pays utilities in Rent</td>
<td>[Fully Serviced Lease]</td>
</tr>
<tr>
<td>Net of Utilities (GSA pays)</td>
<td>GSA</td>
<td>Tenant Pays GSA for Utilities</td>
<td>[Net of Utilities (GSA pays)]</td>
</tr>
<tr>
<td>Net of Utilities (Tenant pays)</td>
<td>Tenant</td>
<td>Tenant Pays Utility Bill Directly to Utility Provider</td>
<td>[Net of Utilities (Tenant pays)]</td>
</tr>
</tbody>
</table>
Net of Utility Pilot 1 Studies Underway (10/2015)

Region 8: DOE-Western Area Power Administration (Lakewood, CO.)
- 115,650 RSF lease representing 100% of building
- 12155 West Alameda Parkway: LCO 013474; Expiration: 11/1/29
- Lease shifted from Fully Serviced to Net of Utilities (in DOE’s name) in 11/2014

Region 11: DOJ- Criminal Division (Washington, D.C.)
- 168,496 RSF lease representing 100% of building
- 1400 New York Avenue: Bond Building: LDC 012554; Expiration: 8/31/29
- “Hybrid” pilot: Lease shifted from Net of Utilities in GSA’s name to DOJ’s name (in 9/2014)

Region 9: BLM- National Training Center (Phoenix, AZ.)
- 72,454 RSF lease representing 100% of building
- 9828 N. 31st Avenue (3-building complex): LAZ 03224
- Lease shifted from Fully Serviced to Net of Electric + Gas in 8/2014
- Lease expiration: 7/2017 firm term; 7/2019 full term; BLM prefers to move in 7/2017

Region 11: USDA Service Center- Warehouse (Washington, DC)
- 116,987 RSF lease representing 100% of building
- 6351 Ammendale Road: LMD 12550; Expiration: 3/31/21
- Lease shifted (2 years ago) from GSA paying utilities to USDA paying utilities

5th Possible Pilot: White Flint 3 -- NRC
Sample Data for Net of Utility Pilot Studies:
Utility Costs and Consumption—“Before” (as F.S.) + “After” (as N.U.)

Electricity Cost per Month

Cost per Month

$0

$5,000

$10,000

$15,000

$20,000

$25,000

$30,000

$35,000

$40,000

$45,000

Cost per Month

Electricity Consumption kBTUs per Month

kBTUs per Month

500,000

450,000

400,000

350,000

300,000

250,000

200,000

150,000

100,000

50,000

0

Aug... Sep... Oct-13

Nov... Dec...

Jan... Feb...

Mar... Apr-14

May... Jun...

Jul-14

Aug... Sep...

Oct-14

Nov... Dec...

Jan... Feb...

*2014 EUAS data for Federally owned facilities was used for the AZ data
First Fuel Pilots

- FF is the GSA Facilities Management “Rapid Building Assessment” project where a sample of buildings go through a “virtual” energy audit and analysis
- Identify opportunities for energy savings and efficiencies
- “365-day/ 24-hour” analysis of a building
- Operational and Retrofit Recommendations are provided

<table>
<thead>
<tr>
<th>Pilot 1: Buildings</th>
<th>Tenant Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver Spring, MD.: 1305 E-W Highway</td>
<td>NOAA</td>
</tr>
<tr>
<td>Silver Spring, MD.: 1315 E-W Highway</td>
<td>NOAA</td>
</tr>
<tr>
<td>Silver Spring, MD.: 1325 E-W Highway</td>
<td>NOAA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pilot 2: Buildings</th>
<th>Tenant Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas City, MO.: 6501 Beacon Drive</td>
<td>USDA</td>
</tr>
<tr>
<td>Lincoln, NE.: 1301 Highland Blvd.</td>
<td>CIS</td>
</tr>
<tr>
<td>Waco, TX.: 800 Franklin St.</td>
<td>U.S. Courthouse</td>
</tr>
</tbody>
</table>
First Fuel Analysis
Remote Building Assessments

1. MINIMAL DATA INPUTS
   - Building address
   - 1 yr electric interval meter data

2. FIRSTFUEL METER DATA ANALYTICS
   - FF is the FMSP “Rapid Building Assessment” project where a sample of buildings go through a “virtual” energy audit and analysis
   - Opportunities for energy savings and efficiencies are identified
   - Operational and Retrofit Recommendations are provided
   - Applied to 100+ Federally Owned buildings

3. DEEP BUILDING INSIGHT
   - Annual Electric End-Use per Sq Ft

From GSA:
- Local weather data
- GIS Mapping/Semantic Search

From FirstFuel:
- Remote Building Assessments

Patent Pending RBA platform
First Fuel
Building Comparison – Energy Intensity: 365 Day/ 24 Hour Building Profile

Building A

Building B
Some Key Points to Take Away

- Freeze the Footprint/Reduce the Footprint initiatives are having a significant impact on the number of Federal leases and amount of space leased. Since 2013:
  - 362 fewer leases in 439 fewer buildings
  - 1.3 million rsf in space reduction – 14,300 tons of carbon reduction
- The most effective energy consumption reduction tactic is to reduce the amount of square feet occupied:
  - Lower utility consumption overall
  - Lower operating costs
  - Fewer GHG emissions
- Fully-serviced leases place greater incentive on landlords to operate their buildings efficiently; net of utilities leases place greater incentive on tenants to modify their operations and behaviors.
- Larger leases present greater opportunities for cost effective savings from energy efficient improvements, to lower utility costs and consolidate operations in a workplace/workforce friendly fashion.
Thank You

Questions and comments?

J. Kenneth Schelbert
kenneth.schelbert@gsa.gov
202-501-1109

Lease Policy, Strategy and Delegations Division
Office of Leasing