Energy efficiency in leased office space for law firms

Case Studies

Overview
Law firms are realizing cost savings by making energy improvements in their leased office space. Implementing energy efficiency measures such as lighting controls, energy management systems, and daylighting can have a positive impact on your bottom line.

Law Firm Tenants

White & Case LLP
The law firm of White & Case LLP partnered with NYSERDA to enhance the law firm’s design and build-out of leased space spanning nine floors in New York City. Working with consultant Robert Derector Associates (RDA), the firm was presented with three energy efficiency design options to choose from. RDA’s modeling provided cost of installation, estimated electricity savings, and available NYSERDA incentives for each design package as compared to the modeled baseline scenario. With costs and projection savings modeled, the firm was able to make informed, energy efficiency decisions that will result in significant savings.

Paul Hastings LLP
With funding provided by NYSERDA, Paul Hastings LLP was able to engage the services of energy efficiency consultant Robert Derector Associates (RDA) to help with the design of the firm’s new location in New York City. The resulting energy modeling analysis informed the firm’s decision-making process in incorporating energy-efficient components in the build-out of the new space. RDA handled the entire application and process, requiring minimum effort by Paul Hastings LLP.

Reed Smith LLP
The law firm of Reed Smith LLP participated in the Urban Land Institute’s (ULI) Tenant Energy Optimization program to assist with the energy-efficient design of the firm’s offices in Philadelphia. The ULI program provides tenants with a 10-step framework and support resources in undertaking the build-out of the class-A office space.

annual cost savings:
$390,000
energy reduction:
39%

annual cost savings:
$270,000
Energy reduction:
46%

annual cost savings:
$70,406
Energy reduction:
45%
<table>
<thead>
<tr>
<th>Tenant Name: White &amp; Case LLP</th>
<th>Tenant Name: Paul Hastings LLP</th>
<th>Tenant Name: Reed Smith LLP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong> 1221 Avenue of the Americas, NYC</td>
<td><strong>Location:</strong> 200 Park Avenue, NYC</td>
<td><strong>Location:</strong> 1717 Arch Street, Philadelphia, PA</td>
</tr>
<tr>
<td><strong>Number of Floors:</strong> 9</td>
<td><strong>Number of Floors:</strong> 4</td>
<td><strong>Number of Floors:</strong> 6</td>
</tr>
<tr>
<td><strong>Lease Term:</strong> 20 years</td>
<td><strong>Lease Term:</strong> 16 years</td>
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<tr>
<td><strong>Project Size:</strong> 440,000 ft²</td>
<td><strong>Project Size:</strong> 190,914 ft²</td>
<td><strong>Project Size:</strong> 117,000 ft²</td>
</tr>
</tbody>
</table>

**Measures implemented:**
- Replacement of tenant-side HVAC systems
- Controls
- Energy management system
- High-efficiency LED lighting
- Day-lighting
- ENERGY STAR® equipment
- IT and plug load management equipment
- Optimized after hours space usage

**Measures implemented:**
- High-efficiency LED lighting
- Replacement of tenant-side HVAC systems
- Supplemental tenant air conditioning units
- IT and plug load management equipment

**Measures implemented:**
- Dimmable switching controls
- Energy-efficient lighting design
- Daylight harvesting controls
- Energy Star Equipment
- Plug load management
- Bi-Level lighting controls

**Investment metrics:**
- Investment of $400,000 was required to achieve the savings listed above
- Payback time for investment: 1 year
- Expected discounted ROI over the 20-year lease term: 1.141%
- Modified Internal Rate of Return (MIRR): 16% per year

**Investment metrics:**
- Investment of approximately $270,000 was required to achieve the savings listed above
- Payback time for investment: Approximately 11 months
- Expected discounted ROI over the 16-year lease term: 1.071%
- Modified Internal Rate of Return (MIRR): 19.3% per year

**Investment metrics:**
- Investment of $153,058 is required to achieve the savings listed above
- Payback time for investment (with incentives): 2.2 years
- Expected discounted ROI over the 16-year lease term: 410%
- Modified Internal Rate of Return (MIRR): 57% per year

**Estimated energy reduction:**
- 39%

**Estimated energy reduction:**
- 46%

**Estimated energy reduction:**
- 44.5%

**Estimated electric savings:**
- $7.7 million in estimated savings over the 20-year lease term

**Estimated electric savings:**
- $4.3 million in estimated savings over the 16-year lease term

**Estimated electric savings:**
- $1,126,498 million in estimated savings over the 16-year lease term

**Estimated annual cost savings:**
- $390,000

**Estimated annual cost savings:**
- $270,000

**Estimated annual cost savings:**
- $70,406

**Energy cost savings break down:**
- $3.4 million in savings from more efficient plant and equipment
- $2.5 million in savings from process and control improvements
- $1.8 million in savings dependent on making changes to the workplace culture and/or end-user behavior

**Energy cost savings break down:**
- $2.5 million from plant and equipment upgrades
- $700,000 in savings from process and control improvements
- $1.2 million in savings from changes to workplace culture and/or end-user behavior

Make your leased space energy efficient.
Visit [nysersda.ny.gov/cre](http://nysersda.ny.gov/cre)