# Energy efficiency in leased office space for law firms

## Case Studies

annual cost savings:

\$390,000

energy reduction:

39%

annual cost savings:

\$270,000

Energy reduction:

**46**%

annual cost savings:

\$70,406

Energy reduction:

45%

#### **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.

NYSERDA

### **Law Firm Tenants**

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.

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.

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.

Tenant Name:	Tenant Name:	Tenant Name:
White & Case LLP	Paul Hastings LLP	Reed Smith LLP
Location:	Location:	Location:
1221 Avenue of the Americas, NYC	200 Park Avenue, NYC	1717 Arch Street, Philadelphia, PA
Number of Floors:	Number of Floors:	Number of Floors:
9	<b>4</b>	6
Lease Term:	Lease Term:	Lease Term:
<b>20 years</b>	<b>16 years</b>	<b>16 years</b>
Project Size:	Project Size:	Project Size:
440,000 ft <sup>2</sup>	190,914 ft <sup>2</sup>	117,000 ft <sup>2</sup>
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	<ul> <li>Measures implemented:</li> <li>High-efficiency LED lighting</li> <li>Replacement of tenant-side HVAC systems</li> <li>Supplemental tenant air conditioning units</li> <li>IT and plug load management equipment</li> </ul>	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 metrics:	Investment metrics:
<ul> <li>Investment of \$400,000 was required to achieve the savings listed above</li> <li>Payback time for investment: 1 year</li> <li>Expected discounted ROI over the 20-year lease term: 1,141%</li> <li>Modified Internal Rate of Return (MIRR): 16% per year</li> </ul>	<ul> <li>Investment of approximately \$270,000 was required to achieve the savings listed above</li> <li>Payback time for investment: Approximately 11 months</li> <li>Expected discounted ROI over the 16-year lease term: 1,071%</li> <li>Modified Internal Rate of Return (MIRR): 19.3% per year</li> </ul>	<ul> <li>Investment of \$153,058 is required achieve the savings listed above</li> <li>Payback time for investment (with incentives): 2.2 years</li> <li>Expected discounted ROI over the 16-year lease term: 410%</li> <li>Modified Internal Rate of Return (MIRR): 57% per year</li> </ul>
Estimated energy reduction:	Estimated energy reduction: 46%	Estimated energy reduction: 44.5%
<b>Estimated electric savings:</b>	<b>Estimated electric savings:</b>	<b>Estimated electric savings:</b>
\$7.7 million in estimated savings	\$4.3 million in estimated savings	\$1,126,498 million in estimated saving
over the 20-year lease term	over the 16-year lease term	over the 16-year lease term
Estimated annual cost savings:	Estimated annual cost savings:	Estimated annual cost savings:
\$390,000	\$270,000	\$70,406
<ul> <li>Energy cost savings break down:</li> <li>\$3.4 million in savings from more efficient plant and equipment</li> <li>\$2.5 million in savings from process and control improvements</li> </ul>	<ul> <li>Energy cost savings break down:</li> <li>\$2.5 million from plant and equipment upgrades</li> <li>\$700,000 in savings from process and control improvements</li> </ul>	

• \$1.2 million in savings from changes

behavior

to workplace culture and/or end-user

• \$1.8 million in savings dependent on making changes to the work place culture and/or end-user behavior

#### Make your leased space energy efficient.

Visit nyserda.ny.gov/commercial-mixed-use-buildings

