



Gensler Walks the Talk

Case Study

Tenant Name:
Gensler

Location:
1700 Broadway
New York, NY

Project Size:
120,000 ft² over 5 floors

“We were excited to see what opportunities we would uncover through this analysis...We are always looking for fast, replicable ways to present energy saving measures to our clients, alongside first cost, ROI, and operational energy savings.”

—David Briefel,
Gensler’s Sustainability Director

Overview

In 2016, Gensler—the world’s largest architectural firm—signed a new lease in the heart of New York City’s theater district. With 120,000 ft² of space across five floors, Gensler wanted to design an office that reflected the firm’s interior design credo, namely that sustainable design should not only create high visual impact but should also reduce lifecycle energy and operating costs. Aesthetically, the space exudes a “backstage” feel, playing off its Theater District locale, which helped it top Crain’s 5 coolest NYC offices for 2018. An excellent design should improve quality of life and promote the health, comfort, and wellness of occupants.



Gensler has a public commitment to sustainability and climate action, which establishes it as a leader in the industry. In 2009, they signed the [AIA 2030 Commitment](#), which calls for all new buildings to be carbon-neutral by 2030; and in 2015, in the wake of COP21, they signed the [Paris Pledge for Action](#). These actions not only translate to helping clients meet energy reduction goals—they also mean Gensler wanted its new office to be a showcase for energy efficiency for its clients.

Actions

Decisions made during the initial design phase of a project can have a substantial impact on energy costs and the environmental footprint of an office space throughout the lease term. In order to analyze the costs and benefits of implementing energy efficiency measures in their new space, Gensler worked with NYSERDA (which provided incentives for the project) and Robert Derector Associates (the consulting engineers on the job) to perform a detailed energy and financial analysis of outfitting the space with different energy efficient systems and technologies. With convincing energy modeling results and a strong business case in hand, Gensler was able to evaluate which energy efficiency measures made the most sense to implement based on its lease term, incremental costs and ROI requirements, and functional needs.

This iterative design process was built into the overall project timeline and budget and did not cause any unforeseen delays, another critical component of tenant fit-out projects. The energy efficiency measures Gensler implemented included installing a state-of-the-art lighting system that consists of high efficiency LED lighting and a high density of sensors throughout the space, which provide real-time daylighting, occupancy, thermal, and energy data. Through a centralized control system, light levels are optimized based on space type and utilization. For example, lighting output in open workspaces was reduced by 25%. Automatic receptacle controls that turn off non-essential end-user devices when not in use were also installed, as was ENERGY STAR equipment, including refrigerators, microwaves, coffee machines, and dishwashers.

Measures and Estimated Annual Savings

Measure Description	Electric Savings (kWh)	Electric Savings (\$)
 Equipment		
Equipment Power Management	49,474	\$10,885
ENERGY STAR® Equipment	185,313	\$40,770
Automatic Receptacle Control	179,632	\$39,519
 Lighting		
Lighting Control Settings	23,419	\$5,152
Reduced Lighting Power	59,448	\$13,078
High Efficiency LED Lighting	46,377	\$10,203
Total Savings	543,663	\$119,607



“With building codes prescribing higher levels of energy savings each year, it’s becoming increasingly critical that we model energy performance on all of our projects, including tenant fit-outs”

—David Briefel, Gensler’s Sustainability Director

Results

Since moving into its new space in October 2016, Gensler has seen significant energy savings compared to its old office.

Based on the measures Gensler implemented, projections for reduced electricity consumption were in the range of 543,663 kWh per year. When base building energy savings are factored in, combined electric savings climb to 642,000 kWh due to the reduction of base building fans as a result of work completed to the ductwork and tenant-side terminal units. This reduction in energy use is equivalent to 173 tons of carbon dioxide emissions per year. Over Gensler’s 15-year lease term, that’s a total reduction of 2,600 tons of CO₂ emissions, which is enough CO₂ to fill 525 hot air balloons.

In terms of the overall impact of the design, Gensler’s post-occupancy survey showed a 25% increase in workplace satisfaction and found that 74% of staff feel the physical work environment has a positive impact on their overall job satisfaction.

Based on these significant results and armed with the deep knowledge that comes with personal experience, Gensler can continue to credibly initiate energy conversations with its clients at the onset of the design process to explain to clients why it is important to execute energy models and simulations, and to help them understand the gains and tradeoffs involved in energy efficiency-based investment decisions.

The NYSERDA Commercial Tenant Program

Through the [Commercial Tenant Program](#), NYSERDA shares up to 100% of energy analysis costs for tenants. The program helps commercial building owners, managers, and tenants capitalize on their energy efficiency investments, and turns energy saving commitments into highly functional, customized office spaces.

Discover how to reduce costs and energy use in your commercial spaces with NYSERDA.

Contact us today at commercialprograms@nyserdera.ny.gov.

