



Efficiency Now

It's never been more important.

Empire State Building: *New York, New York*

Landmark building provides prototype for innovative sustainability retrofit process



Background:

The Empire State Building is a pre-war, multi-tenant, trophy office building with 2.85 million square feet hosting retail, office and broadcasting uses. As a core element of the more than \$500 million upgrade program presently underway at the world's most famous office building, a comprehensive energy-efficiency retrofit was incorporated, creating a model to serve as a leading example to other commercial office buildings around the world.

Opportunity:

The Empire State Building Company brought Johnson Controls together with other leading energy-efficiency organizations to develop an innovative approach to sustainable retrofits supported by state-of-the-art tools. The resulting program involves infrastructure improvements, design standards, tenant energy management, property management, leasing and marketing initiatives.

Results: Greater than 38% reduction in annual energy use

As part of the project, over \$100 million of total cost was involved in energy efficiency, but only \$13 million of additional cost was required. Johnson Controls is delivering cutting edge technologies through the project, including extensive onsite window refurbishment, high efficiency cooling equipment, and a Metasys® building management system including Sustainability Manager™, which will provide tenants with an online dashboard to help them track and manage their energy usage. The improvements will place the Empire State Building in the top 25 percent of U.S. commercial office buildings in terms of energy efficiency. The project will reduce energy costs, lower carbon emissions, and provide the foundation for high performance tenant workspaces.

Efficiency makes sense for everything from the wallet to the environment. Efficiency measures can be accomplished quickly, they're relatively easy, and there's a real payback. The world needs efficiency, and Johnson Controls has everything necessary to provide it. We've got the experts, we've got the technology, and we've got ingenuity and integrity built into everything we do. For more examples of energy and operational solutions for buildings around the world, visit johnsoncontrols.com/esb.

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