

# Boston Properties



Boston Properties (BXP) is the largest publicly traded developer, owner and manager of Class A office properties in the United States, with a significant presence in Los Angeles, New York, San Francisco, Washington, DC, and Boston, where it's headquartered. A recognized sustainability leader, BXP recently earned a top ESG rating in the 2020 Global Real Estate Sustainability Benchmark and achieved a carbon target six years ahead of schedule.

Working with Stem enabled BXP to find the right opportunity for energy storage to support its sustainability and financial goals at a flagship property in Los Angeles. The large, multi-site installation will save the company close to \$2 million while helping the local utility reduce carbon emissions and air pollution.

## Challenge

Boston Properties approached Stem because it wanted to understand how to leverage energy storage to advance sustainability while getting a financial return. The company's sustainability strategy seeks to mitigate "operational costs and the potential external impacts of energy, water, waste, greenhouse gas emissions and climate change," and while it recognized storage as a complementary technology, it needed a hands-on expert partner who could deliver a turnkey experience.

Stem first met with the company in 2013, and while project economics hadn't yet become sufficiently favorable, BXP was impressed by Stem's professionalism and depth of expertise.

The economic picture brightened a few years later, when California expanded its energy storage incentives and, in parallel, battery costs fell. Stem helped BXP evaluate several prospective installations in both San Francisco and Los Angeles, and then focused on the latter when a change in San Francisco's fire code rendered those projects unviable.

## Location

Santa Monica, CA

## Facility Type

Commercial Office Complex

## System Size

2.1 MW / 3.7 MWh

## Applications

Utility Bill Optimization, Demand Response

## Commercial Operation Date

March 2019

## Lifetime Guaranteed Savings

\$1.9M

"We take sustainability very seriously and are always looking for ways to improve. We had our eye on energy storage for years, and when it became feasible economically, Stem's market leadership and our prior conversations gave us the confidence we needed to explore a new technology. We continue to see very positive impacts from our systems, and Stem's professionalism along with regular meetings and service have been outstanding throughout."

## Danny Murtagh

Vice President, Engineering  
Boston Properties

## Solution

Stem helped BXP target a particularly suitable site for energy storage: the Colorado Center, a 15-acre office campus in Santa Monica with over one million square feet of office space. Each of the Center's six buildings is Energy Star-certified, and each is well-suited to Stem's solution.

Part of the site's appeal is its location – in a capacity-constrained zone of the local utility, Southern California Edison (SCE), which calls on resources like distributed energy storage many times per year when needed to provide grid relief. This not only enhances project economics, with additional revenues coming from SCE's demand response program. It also helps reduce carbon emissions and air pollution, since the moments of highest demand are also those when the dirtiest generation is running. In certain circumstances, energy storage can replace dirty peaker plants altogether.

In the end, Stem oversaw the seamless installation and operation of a 3.7 MWh energy storage system at the Colorado Center – the largest indoor lithium-ion energy storage system in the United States.

Central to Stem's solution, for BXP and all our customers, is Athena™, Stem's best-in-class smart storage software that operates more than 600 MWh of energy storage systems around the world. When the local grid is stressed, Athena dispatches BXP's batteries and hundreds of others in SCE territory, and batteries power customer sites for a specified duration and earn revenues for doing so. Athena is also Stem's analytical engine that drives financial performance, optimizing individual systems based on real-time analysis of facility energy use, utility rates, weather, and other factors.



## Results

Stem's energy storage solution allows BXP to reduce its demand charges, as well as store electricity when it's less expensive (and cleaner) and then dispatch it when it's more expensive (and dirtier). Over the 10-year lifetime of the system, BXP is guaranteed to save more than \$1.9 million.

The companies maintain frequent contact, with Stem providing system updates and seeking opportunities for continuous improvement. Stem has also become a trusted energy advisor, in one case explaining the particulars of California's Community Choice Aggregators (CCAs) and helping BXP select the right CCA product offering for its needs.



"Sustainability has become a huge focus for big U.S. real estate companies – and that's a good thing!" remarks Danny Murtagh, Vice President at BXP. "Energy storage is a big topic and technology for sustainability. We've been very impressed by Stem's professionalism and expertise, and we look forward to seeking out more opportunities as we move forward with energy storage."

## ABOUT STEM

Stem pairs artificial intelligence with energy storage to help organizations manage expenses, reduce risk, and support sustainability goals. As the market leader in real-time energy optimization, Stem has created new cash flows for hundreds of customers, including many Fortune 500 enterprises. Athena by Stem is the first AI for energy storage.

To learn more about Stem's energy storage solutions, contact us at [www.stem.com/contact-us](http://www.stem.com/contact-us)