

## CASE STUDY

# Brookfield Properties



2019  
Portfolio of the Year

## Brookfield Properties

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Sustainability is an integral part of Brookfield Properties' culture. We are always searching for ways to reduce our carbon footprint as it is important to embrace the reality that design challenges fuel innovation. We welcome the challenge!

Robert Cushman  
Senior Vice President, Operations  
U.S. Division

### Portfolio Description

Brookfield Properties is a global, best-in-class real estate operating company with industry-leading capabilities in support of all of its real estate investment strategies. Brookfield's Los Angeles portfolio includes eight properties covering 10 million square feet. Multiple Brookfield's Los Angeles properties are LEED and ENERGY STAR certified.

### Sustainability Goals

Brookfield's mission focuses on providing the highest quality commercial office space while bringing responsible environmental solutions and innovative energy saving strategies to their tenants and the communities where they work. Brookfield's corporate social responsibility program focuses on high-performance in existing buildings and new office developments.



3%

Reduction across  
portfolio in 2018



87

Average Energy Star  
Score across portfolio



### Portfolio Specifications

Number of Buildings: 8  
Square Feet: 10,469,810  
[brookfieldproperties.com](http://brookfieldproperties.com)

### Project Background

Brookfield used the LEED certification process as a guide, and worked with a variety of internal and external stakeholders, to develop portfolio-wide and property-specific projects that reduce energy and water use.



## Pro Tip

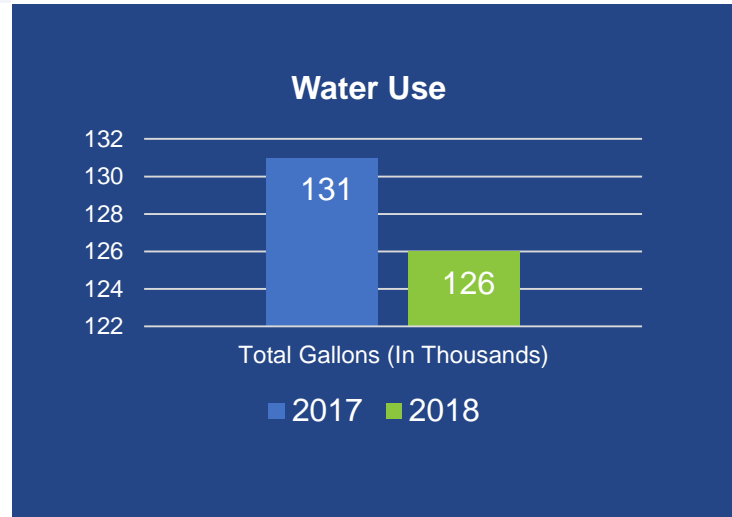
“” Design Challenges Fuel Innovation!

### 2018 Project Highlights

- Bank of America Plaza: Rebuilt cogeneration engine.
- The Gas Company Tower: Upgraded garage lighting to LED.
- Figueroa at Wilshire: Installed smart panels to control and monitor consumption, sealed ducts, and installed low-flow fixtures in restrooms.
- Ernst and Young Plaza: Relamped loading dock, outdoor areas, roof and helipad with LED lights, and reset chilled water setpoint. Replaced cooling tower water treatment controller, and reduced blowdown 10%.
- 777 Tower: Installed new high efficiency Danfoss drives. Installed LED lighting in parking and stairways, including exit signs, for 54 floors. Reduced excess air ventilation and installed electric fire-controlled dampers in stairways. Upgraded central plant operation for automatic reset for free cooling. Replaced restroom faucets with automatic low-flow faucets. Upgraded all urinal diaphragms from .5gpf to .125gpf.
- Wells Fargo Center: Installed Continued Lutron Quantum Lighting Control System in both towers.

### Projects Completed Prior to 2018

- Bank of America Plaza: Stairwell, loading dock and garage LED lighting retrofit. Installed VFDs and more efficient heat exchangers in cogeneration plant.
- The Gas Company Tower: Converted light fixtures to LED. Installed water-efficient landscaping and drip watering system. Installed high efficiency motor on chilled water pump.
- Figueroa at Wilshire: Refurbished cooling towers, installed premium efficiency motors and smart electrical panels, and upgraded electrical panels. Converted light fixtures to LED.
- Ernst & Young Plaza: Converted light fixtures to LED. Installed low-flow bathroom fixtures. Installed high efficiency fan motors, new sand filters and VFDs.
- 777 Tower: Installed VFD on outside air fan. Retrofitted with LED lighting. Reduced excess outside air ventilation volume. Improved efficiency of air and water temperature controls.
- Wells Fargo Center: Installed LED light fixtures, VFDs and HVAC automation.
- Ernst & Young Plaza: Upgraded chiller, VFDs and sub-meters. Installed efficient fluorescent bulbs and upgraded all flush valves in tower to low flow. Replaced cooling towers.



### Stakeholder Engagement

Brookfield conducted tenant surveys to gather feedback on property management teams, building amenities, and tenant engagement initiatives. These surveys helped Brookfield understand how to retool their environmental programming to cater to their tenants' interests and needs. Tenants are also provided educational opportunities through Lunch & Learns, sustainability newsletters and posters.

### Innovation

Brookfield has deployed a variety of innovative platforms and tools to maximize building efficiency, including: budgeting and tracking electric expenses, tracking daily energy consumption and forecasting demand, monitoring utility and waste costs, and analyzing regulated rates. Brookfield also partners with companies developing new technologies and strategies to demonstrate their products in real-world situations.