

The Magic of Macy's Shines Bright with Solar



Quick Facts: Macy's and SunPower Solar



71

Total Number of Sites Installed



Rooftop

Installation Type



38.9 MW

Total System Size



50,162 MWh

Estimated Annual Output of energy sold to others as of December 2016

Challenge

Macy's, Inc. has a long-standing commitment to sustainability that began more than a decade ago. As one of the nation's premier omnichannel retailers, with a vast workforce and customer base, Macy's has a significant opportunity to make a meaningful difference in improving the environment. The company sets new sustainability targets regularly which it consistently achieves. In 2016, Macy's again increased its commitment with the following goals:

- Reduce energy usage on a kWh-per-square-foot basis by 2% each year in 2016, 2017 and 2018 from 2015 levels.
- Install an additional 25 percent to 35 percent of solar power systems over 2012 levels.

Solution

Today, Macy's, Inc. has achieved these goals and more. The organization continues to push the envelope on energy efficiency through the widespread use of LED lighting and energy management improvements. And since 2007, Macy's has installed large, rooftop solar systems on 102 stores and distribution centers in eight states. SunPower has been a long-standing partner in this effort, having installed 71 sites to date, some of which also included roofing upgrades that were managed by SunPower as part of the solar installation. Together, Macy's and SunPower continue to identify opportunities around the country where solar installations make the most economic sense and where they best support the company's growing sustainability goals.

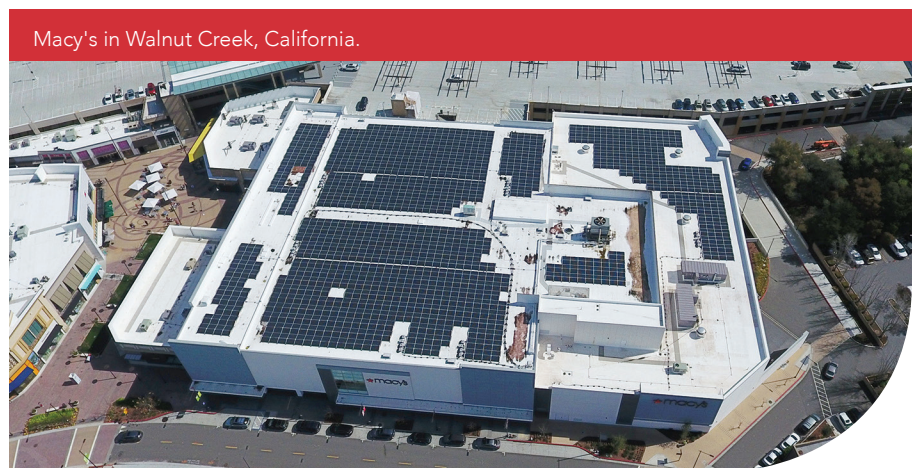
Benefits

As of the end of 2016, the projected annual output of Macy's SunPower® solar systems was approximately 50,000 MWh, most of which was sold to others.

"We congratulate Macy's for its visionary leadership over the last decade, prioritizing sustainability to serve its business and the communities in which it operates."

Nam Nguyen

SunPower Vice President, Americas Power Plant



“We are honored to work closely with Macy’s over the last decade and proud to have such a visionary solar power partner.”

Nam Nguyen
SunPower Vice President, Americas
Power Plant



More than 150 years of doing well by doing good.

Macy's, Inc. believes that contributing to a more sustainable environment is good business practice and the right thing to do for future generations. The organization also believes in taking a comprehensive approach to sustainability and renewability with customers, associates and vendor partners.

This belief in responsible corporate citizenship and Macy's commitment to sustainability is exemplified by the company's simple yet resolute sustainability theme, "Green Living." For Macy's, Green Living isn't just about reducing the company's impact on the environment; it's about living responsibly, both environmentally and socially. It's an all-encompassing commitment that Macy's, as a major corporation, takes very seriously.

Founded in 1858, Macy's is one of the nation's premier omnichannel retailers with a large, diverse workforce and customer base. The company has made a public pledge to reduce the use of scarce resources, eliminate wasteful behaviors, introduce an eco-friendly solution or product whenever possible to meet the needs and expectations of the customer, and will strive to reduce its overall impact on the environment. Macy's regularly sets, achieves and refreshes sustainability goals to diminish its environmental impact and reduce overall energy use.

Macy's is working to achieve sustainability goals on multiple fronts, from encouraging the use of public transportation among associates to optimizing facility performance through energy efficiency improvements across its stores.

Chief among Macy's sustainability efforts is a major commitment to generating solar energy which is ultimately sold to others, where it can make a positive impact on the environment, as well as the bottom line.

“SunPower® high-efficiency systems are ideal for our sometimes constrained roof areas, and provide maximum power.”

John Dienes
Group Vice President,
Facilities Management, Macy's Inc.

Macy's Capitola Mall in Capitola, California.



Always looking for a brighter, bolder solution.

After a few small pilot solar projects in New Jersey, Macy's turned to solar in a big way in California in 2007 when the company took advantage of the state-funded California Self-Generation Program, which offered incentives for companies using solar power. Since then the company has installed solar in Arizona, California, Connecticut, Hawaii, Maryland, Massachusetts, New Jersey, and New York. Many of these systems have been purchased outright, but most were negotiated as Power Purchase Agreements (PPAs) with little to no upfront investment, and operations and maintenance provided by SunPower.

"SunPower has been a good partner to Macy's in helping to develop solar across our facility portfolio," notes Chuck Abt, Senior Vice President of Operations, Macy's, Inc. "The SunPower team has been instrumental in identifying those opportunities across the country where it makes economic sense to develop solar, and has worked closely with Macy's to develop a comprehensive strategy to achieve our sustainability goals."

SunPower high-efficiency systems are ideal for maximizing the roof space of Macy's retail locations. Macy's newest solar sites include a 2.25-megawatt (MW) SunPower system in Joppa, MD, a 243-kilowatt (kW) system in Chestnut Hill, MA, and a 670 kW system in Walnut Creek, CA—designed and installed by SunPower.

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Chuck Abt
Senior Vice President of Operations,
Macy's Inc.

"The SunPower Helix Roof product delivers value through innovation, benefiting customers with an exclusive combination of the most efficient solar panels installed at world-record speed," said Nam Nguyen, SunPower President, Business Units. "We congratulate Macy's for its visionary leadership over the last decade, prioritizing sustainability to serve its business and the communities in which it operates."

Macy's Shoppes at Buckland Hills on Pavilions Drive, in Manchester, Connecticut.



Celebrating the environment every day.

Most people know Macy's for its world-renowned shopping experience and signature events such as the Macy's Thanksgiving Day Parade, Fourth of July Fireworks, and annual Flower Shows, but Macy's has also been recognized for its leadership in solar energy. Both the Environmental Protection Agency and the Solar Energy Industries Association have consistently ranked Macy's as one of the top companies for generating the most green electricity on-site.^{1*} These achievements serve as a point of pride for associates, customers and vendor partners.

Macy's and SunPower have benefited from a long-standing, successful relationship that proves that large global retailers can make solid, bottom-line business decisions that also provide a measurable and lasting impact on the environment.



"As the VP Store Manager, I am proud that we have a solar system on our store and of course, my team is equally proud of this accomplishment! Our customers are thrilled to know that Macy's is truly doing its part in supporting a sustainable future, across the country and within our local communities—plus, it gives our customers one more great reason to shop with us."

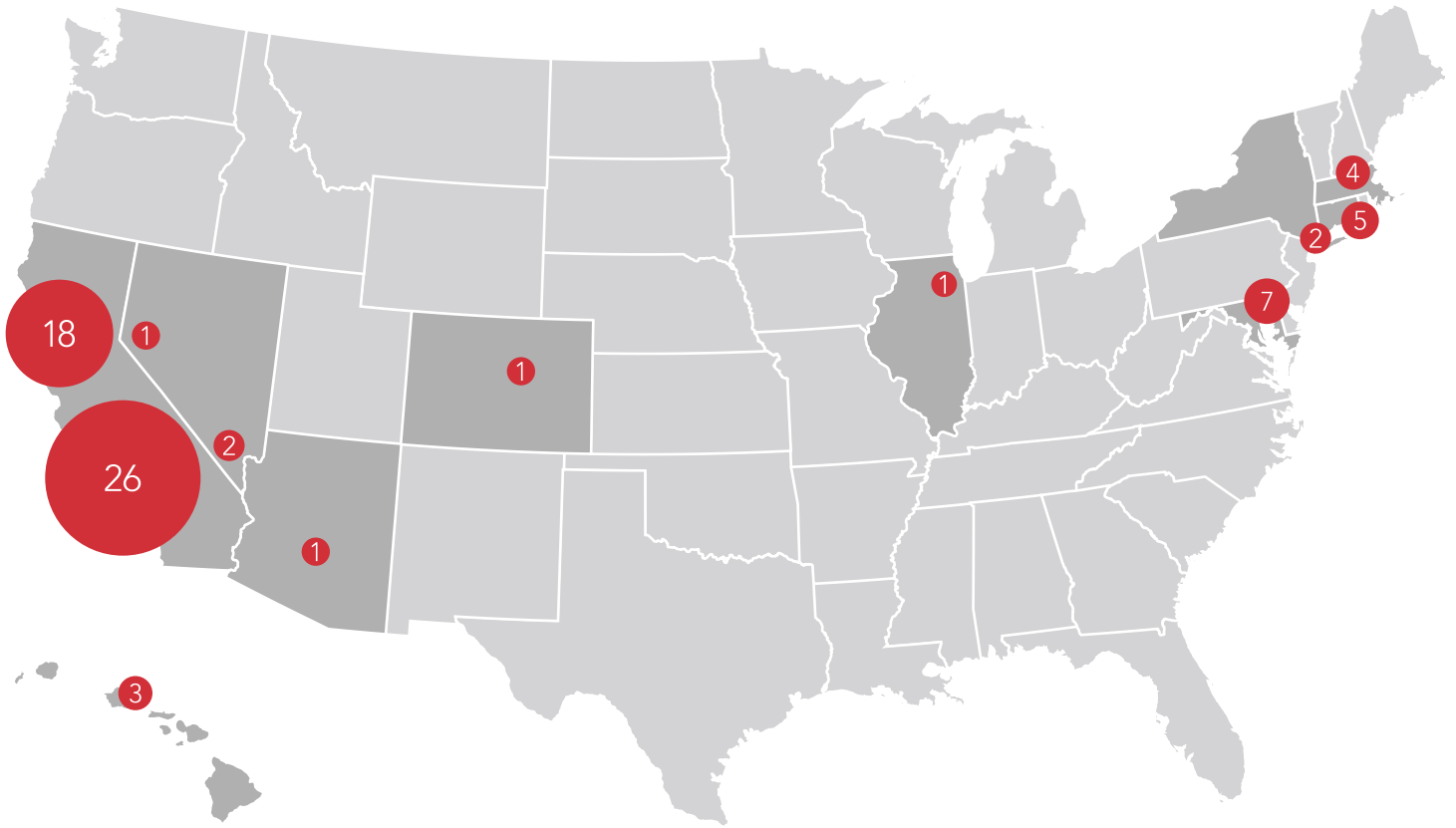
Heather Stallion
VP and Store Manager, Macy's Sacramento

Macy's has made tremendous progress in reducing its environmental impact, including the following achievements:

- Reduced electricity consumption by more than 35 percent in Macy's stores from 2002 to 2012.¹
- Macy's Installed solar arrays on a total of 102 sites by the end of 2016.
- Installed a 600 kW Bloom Energy server (a solid oxide fuel cell) that replaces most of the grid energy at the company's Cheshire, CT, fulfillment center.¹
- More than doubled its use of sustainable building materials in 2014 over 2013 levels.¹
- Increased to 48.5 million the number of miles driven by sustainable modes of transportation including rail, vendor-to-distribution center bypass, Empty Miles and backhaul.¹
- Added more than 1.1 million energy-saving LED lamps in about 800 Macy's stores, while continually testing new installations.¹

Macy's and SunPower Solar

Macy's continues to install more SunPower solar on its stores every year, with 71 sites currently installed. Three additional sites will include storage.



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*Solar energy produced on-site at Macy's facilities with SunPower is ultimately sold to others under the terms of the PPA.
1 Macy's 2015 Fact Book.

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