

A new lease on life

Using a range of LED solutions, NextGen LED helps enhance quality of life at AvalonBay residential community. by Susan Bloom

Built in 2003, the sprawling 9.9-acre residential community of Avalon at Grosvenor Station in North Bethesda, Md., features 497 one-, two-, and three-bedroom rental apartments nestled within 10 buildings near the Grosvenor Red Line Metro Station and such area landmarks as beautiful Rock Creek Park and the Music Center at Strathmore. Equipped with a range of amenities—including gourmet kitchens; a state-of-the-art fitness center; and landscaped courtyards with barbecue areas, exercise trails, and an outdoor pool and sundeck—the community was designed to create a positive experience and outstanding quality of life for its residents. So when it was determined that the community could be better served with an upgrade to brighter, longer-lasting, and more energy-efficient LED lighting in late 2014, NextGen LED stepped in to partner with the property management team to help realize its long-term sustainability goals.

As one of the nation's largest real estate investment trusts (REITs) with 277 properties on the East and West Coast, "AvalonBay Communities is taking a more systemic approach to sustainability and we consider ourselves leaders in this space," said Mark Delisi, senior director of corporate responsibility for the Arlington, Virginia-based firm. "We saw a lot of opportunity in our portfolio—from energy-efficient measures involving lighting, water, etc.—to bring that to scale."

With an outdated collection of CFL technology lighting the interior halls, lobbies, and other common areas within the buildings and metal halide technology illuminating parking areas, walkways, and other exterior spaces, Delisi knew that there were extensive opportunities to reduce energy consumption and costs.

"In addition, the head of the maintenance department at the property was having a member of his staff replace bulbs throughout the community every Thursday, so there were also significant maintenance savings to be realized," Delisi continued. "We'd seen many advances take place in LED lighting over the past few years and our local

utilities were offering very attractive LED rebates, but we wanted a knowledgeable partner we could trust to identify the best products for us and conduct our retrofit."

That provider was NextGen LED, a Rockville, Maryland-based lighting distributor/ESCO specializing in operating expense reductions through the use of environmentally responsible technologies. Among those, "I fell in love with lighting in particular because of the fixed savings and clear financial results it could deliver," noted NextGen LED Principal Marnie Abramson, a former commercial real estate development professional with a specialty in green solutions who launched the woman-owned small business in 2011.

After working with the Avalon design team in summer 2014 to test a variety of LED products on-site, NextGen LED proceeded to upgrade the 2x13W CFLs within the recessed cans, wall sconces, and ceiling-mounted fixtures inside the buildings with 12W square and 15W circular LED fixtures by TerraLux. The fixtures' retrofit kits typically consume less than half the energy of CFLs for the same light while delivering dramatically improved color quality,

longer life, and more maintenance-free operation.

Elsewhere, outdoor post-top lamps, floodlights, and recessed cans in exterior canopies that previously housed 150W to 250W metal halide technology were upgraded with a variety of energy-efficient LED solutions from across the industry. In addition, T8 32W linear fluorescent lamps lighting garage spaces were subsequently replaced with 15W LEDs "that delivered 130 lumens per watt and exceptionally bright light coverage," Abramson said.

Another goal of the project was to combat the lumen depreciation and color-shifting issues that the community had been experiencing. "The CFLs inside the property made the tan carpet look green," said Abramson. "We selected a 3000K color palette inside so that the interior residential environment would have a warm, inviting feeling and 4000K to 5000K options outside to deliver crystal-clear vision and enhanced safety and security."

REAPING THE BENEFITS

Following the month-long, 2,000-lamp upgrade in October 2014, the property experienced a range of benefits, including energy and maintenance savings of nearly \$44,000 a year, avoidance of more than 581,000 lbs. of CO₂ annually, and a one-year payback—thanks to the help of nearly \$163,000 in rebates that NextGen LED secured from the local utility.

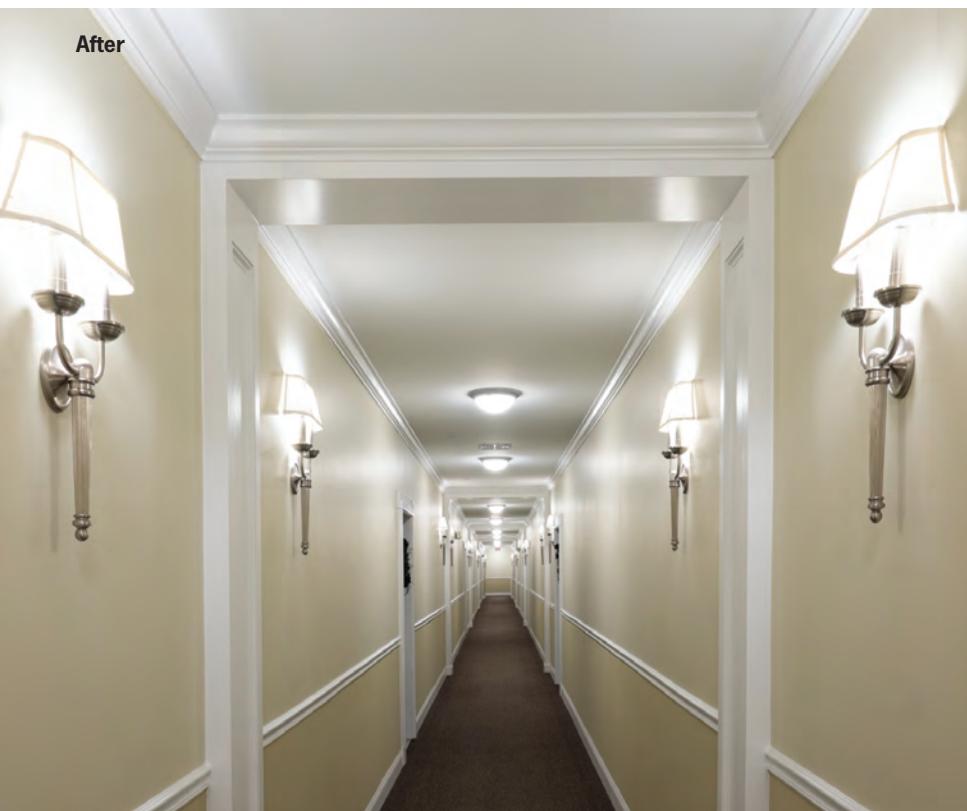
Based on before-and-after measurements on property meters, "AvalonBay's lighting expenses were reduced by nearly 60%, and the facility saw a 28% reduction in its overall utility bill," Abramson said.

As for the new aesthetic, "The transformation has been magnificent," she

Before



After



Among the benefits of the property's lamp upgrade were savings of more than 581,000 lbs. of CO₂ annually (the equivalent of removing 72 cars from U.S. roads) and a one-year payback, thanks to the help of nearly \$163,000 in rebates from the local utility.

said. "It looks like they repainted, replaced the carpets, and completed a full facility upgrade—not just the lighting—because the colors look so much truer now."

"The lighting is so much brighter and looks great; it's really made a dramatic impact on our hallways," Delisi agreed. "It can be hard to find companies like NextGen LED that really know what they're doing, but with its demonstrated lighting knowledge, great communication skills, and positive interactions with both our residents and staff, NextGen LED has been a great partner.

"This upgrade made sense for us based on the energy savings alone, but when you factor in the huge rebates and the way it's freed up maintenance people, it was an amazing project," continued Delisi, whose REIT currently has 30 similar LED upgrades under way based on the technology's high performance, long lifespan, energy efficiency, and low maintenance.

"People often think that CFLs represent the optimal level of efficiency," explained Abramson. "But if you're using CFLs, you're missing the boat on savings and quality of light. LED is 100% the way to go today."

At the same time, she noted that the right service provider is also key. "Lighting upgrades aren't always as simple as changing out a lightbulb; you want a partner who understands the underlying technology and how it can help enhance and protect the value of your property asset," said Abramson, who encourages other property managers to consider LED upgrades.

"You can't control your utility costs or usage hours, but you can control how much it costs to provide the light you need. Then you can focus those savings on other priorities of importance to residents and staff," Abramson concluded. ■

Bloom is a 20-plus-year veteran of the lighting and electrical products industry. She can be reached at susan.bloom.chester@gmail.com.