



# Solar in the Spotlight

**Stories of Angelenos  
Investing in a Clean Energy Future**



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Cover photo: Pat, a solar homeowner; solar panels on the campus of Rolling Hills Prep; Renee La Pan and Mangesh Hoskote with the solar panels at The Vedanta Society; Bob Goldberg with the solar panels at Earth Island / Follow Your Heart.

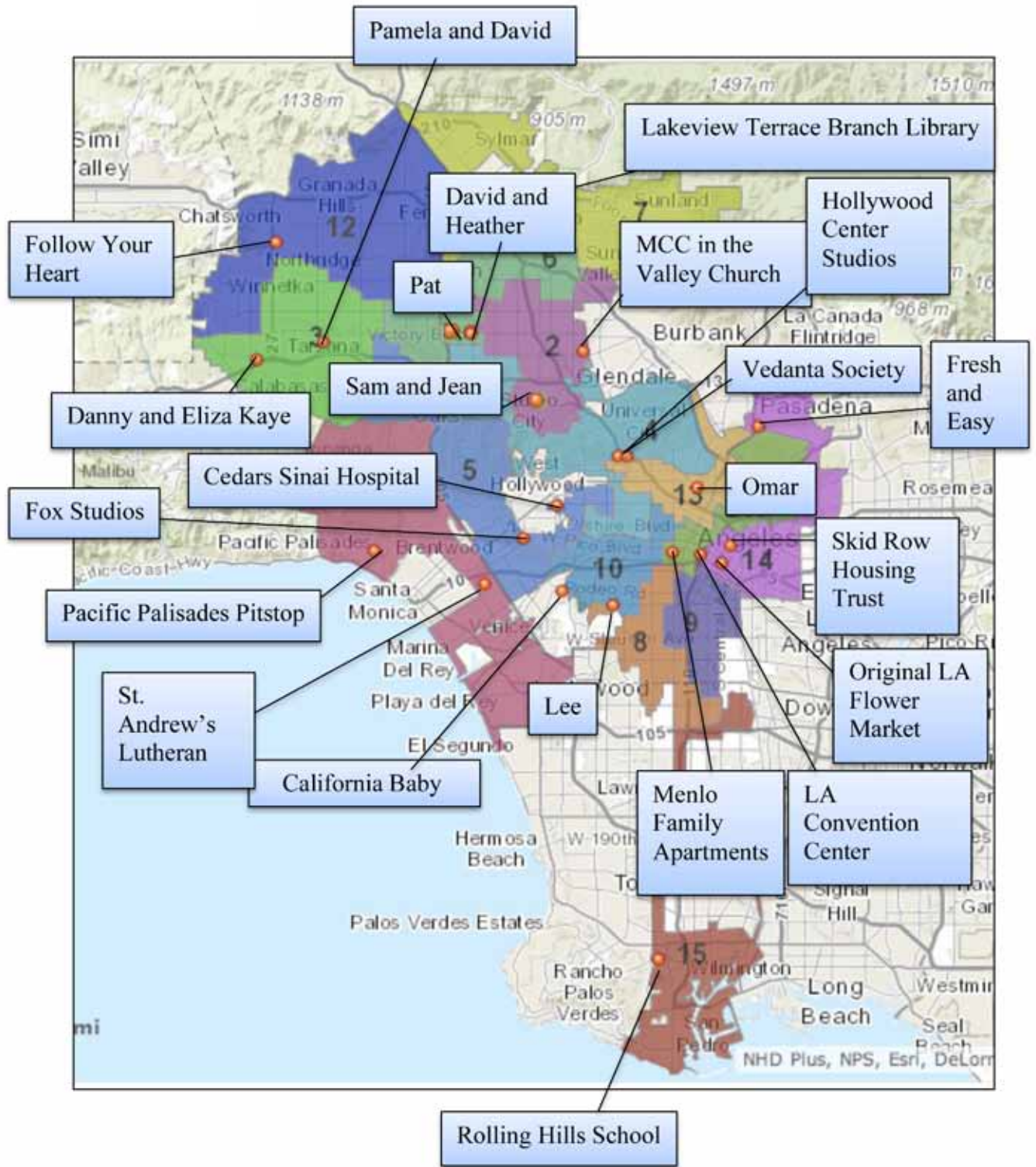
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Figure ES-1: Map of the Solar Success Stories Featured in This Report.



# Executive Summary

**F**rom Hollywood studios to car washes, from Hindu temples to Christian churches, from low-income apartment buildings to single-family homes, thousands of Angelenos are already powering their homes, businesses, schools and places of worship with clean energy from the sun. This report highlights 23 solar projects from all across the city of Los Angeles, showing the breadth and diversity of the city's growing solar market.

All over L.A., people are going solar because:

- Solar power helps the planet. A typical 5-kW solar photovoltaic system prevents the emission of 3.67 metric tons of global warming pollution and 2.44 pounds of smog-forming pollution each year.<sup>1</sup> The congregations at St. Andrew's Lutheran and the Metropolitan Community Church, for instance, love solar because it matches their ethic of sustainability and conservation.
- Solar energy saves money. At the Baldwin Hills headquarters of California Baby, which manufactures baby products, the installation of solar panels sent electricity bills plummeting from thousands of dollars a month to hundreds.

Solar power is already cleaning the air, reducing global warming emissions, and creating local jobs for Angelenos. But L.A. could still do much more. Right now, the city of Los Angeles gets less than 2 percent of its power from the sun. Installing 1,200 megawatts (MW) of solar capacity in L.A. would allow the Los Angeles Department of Water and Power to meet 20 percent of peak summertime demand with solar power. That would be enough to eliminate 730,000 pounds of smog-forming pollution and 1.1 million tons of global warming pollution each year—and create an estimated 32,000 local jobs.<sup>2</sup>

The sky is the limit on what Los Angeles could accomplish with solar power. But the city will never reach its full potential without strong leadership from elected officials. Mayor Garcetti and the City Council can take these concrete steps now to make Los Angeles into a world-class solar city:

- Mayor Garcetti and the City Council should make 1,200 MW of local solar power by 2020 into an official city goal.

**Solar power is already cleaning the air, reducing global warming emissions, and creating local jobs for Angelenos.**

- City leaders should also direct the department to maintain the integrity of the 150 MW feed-in tariff program and expand it to 600 MW by 2020. The feed-in tariff, which pays solar customers directly for the energy that they produce, represents a historic new effort to incentivize solar on warehouses, parking lots and other commercial properties.
- LADWP should meet and exceed the 280 MW solar goal originally laid out for the utility in the 2006 Million Solar Roofs Initiative (SB1). The utility can do this by offering expanded rebates to homeowners, businesses and schools, by increasing access to net metering, and by diversifying the city's solar energy base to include non-profit groups, multi-family housing units, and community-shared solar programs.
- The department should standardize and accelerate permitting, billing and interconnection procedures and should increase transparency and communication.
- Finally, the city government should continue to support and strengthen green job training programs.

# Introduction

Angelenos are eager to see their city become a world solar capital. More than 80 well-respected businesses, elected officials, environmental organizations, and community groups have called for the city to achieve 20 percent local solar power by 2020.<sup>3</sup> The growing list of endorsers includes Mayor Eric Garcetti: in January 2012, during his campaign for mayor, Garcetti pledged to power the city with 1,200 MW of electricity from the sun.<sup>4</sup>

For the last several years, Los Angeles has been making steady progress on solar. The city's local solar capacity increased from just 10 MW in 2007 to 85 MW in September 2013.<sup>5</sup> As this report highlights, homeowners, businesses and community groups are already reaping the benefits of solar power with the help of programs like the Solar Incentive Program (SIP), net energy metering, and, most recently, the Feed-in Tariff Solar Program (FIT) (see sidebar).

But there's still a long way to go before the city reaches its full potential. L.A. has what it takes to be a world-class solar city. L.A.'s weather is famously sunny, with fewer cloudy days than almost any other city,<sup>8</sup> and the city has plenty of space: L.A.'s empty rooftops could accommodate 5,536 MW of solar power, enough to cover 92 percent of the city's peak summertime electricity needs.<sup>9</sup> The city has a well-trained solar workforce: Homeboy Industries, L.A. Trade Tech, IBEW Local 11 and other programs train more than 2,000 Angelenos a year for jobs in the solar industry.<sup>10</sup> But despite the city's considerable resources, L.A. had installed only 85 MW of solar as of September 2013,<sup>11</sup> equivalent to less than 2 percent of peak summertime demand.

**LADWP's Solar Incentive Program:** Governor Arnold Schwarzenegger signed the Million Solar Roofs Initiative (SB1) into law in 2006, creating the California Solar Initiative (CSI). This groundbreaking legislation aims to make solar power accessible for all Californians through upfront rebates for solar energy systems on homes, businesses, and non-profit and government buildings. The legislation also created programs to incentivize solar for low-income communities and multi-family housing units. LADWP's official goal under SB1 is to install 280 MW of solar energy by 2016, using a total budget of \$313 million. As of January 2013, LADWP was on track to install just 140 MW—half of their stated goal.<sup>6</sup>

**LADWP's Feed-in Tariff (FIT):** In January 2012, LADWP announced an initial 100 MW feed-in tariff program, with a commitment to expand the program to achieve 150 MW by the end of 2016. This program exceeds the goals laid out in SB32 (2009, Negrete McLeod), which calls for LADWP to offer a 75 MW feed-in tariff program. The program allows LADWP to purchase the energy produced by solar power systems for a fixed-price over a twenty-year time period. The program is ideal for larger solar customers who consistently produce much more energy than they consume: warehouses, parking garages, industrial buildings, and multi-family housing units<sup>7</sup>.



The city is facing a critical juncture. LADWP has committed to move away from coal,<sup>12</sup> which currently provides nearly 40 percent of the city's power.<sup>13</sup> At the same time, the utility will need to retrofit almost all of its natural gas plants over the coming decades to comply with federal once-through cooling mandates.<sup>14</sup> LADWP may also need to re-evaluate its reliance on the San Onofre and Palo Verde nuclear plants, which have been plagued by problems.<sup>15</sup> All in all, LADWP will need to replace or retool 70 percent of its generating capacity over the next 15 years.<sup>16</sup> Unless the city's clean energy programs are expanded, most of the new capacity will come from new, in-basin natural gas plants. L.A. faces a crucial choice: The city can lock its citizens into additional decades of dependence on fossil fuels, or become a national frontrunner in clean energy.

By continuing to expand the use of rooftop solar power to 20 percent by 2020, L.A. can:

- **Address the city's serious air pollution problems, allowing all Angelenos to breathe easier.** Installing 1,200 MW of local solar power would reduce smog-forming pollution by approximately 730,000 pounds each year—welcome news for the more than one million children and adults in Los Angeles County who have asthma.<sup>17</sup>
- **Lead the nation and the world in finding clean energy solutions to the climate crisis.** By reaching 1,200 MW of local solar power, L.A. can reduce global warming pollution by an estimated 1.1 million metric tons annually, equivalent to the tailpipe pollution produced by 230,000 cars.<sup>18</sup>
- **Conserve water, one of L.A.'s most precious resources.** Unlike fossil fuel plants, which need huge amounts of water, solar panels consume no water except for an occasional cleaning. Installing 1,200 MW of rooftop solar will save an estimated 435 million gallons per year.<sup>19</sup>

- **Create opportunities for men and women eager to work in the solar industry.** Thousands of Angelenos are already trained for jobs in solar installation, sales, administration and maintenance.<sup>20</sup> Installing 1,200 MW of local solar energy would create approximately 32,000 job-years for these workers.<sup>21</sup>
- **Avoid costly and unnecessary investments in grid infrastructure.** Rooftop solar panels provide the most power on sunny afternoons, when demand tends to be high—so they reduce the need for expensive and rarely used peaking plants. And unlike traditional power plants, solar panels produce power at the location where it will be used, minimizing costly investments in transmission and distribution infrastructure.<sup>22</sup>
- **Continue to build support for clean energy among a broad base of diverse stakeholders.** People are more likely to support solar power once they have seen it in action on a coffee shop, a friend's house or a child's school. A recent Yale / NYU study shows that when one person in a neighborhood goes solar, it makes others in the same area more likely to follow suit.<sup>23</sup> As the rooftop solar market expands in L.A., excitement and enthusiasm about clean energy will continue to grow.

As this report shows, thousands of Angelenos—from library-goers in Pacoima to residents of low-income housing near Skid Row—are already enjoying the immense benefits of solar power. But the city is still far from reaching its solar potential. By committing to 1,200 MW of local solar power by 2020, L.A. can clean the air, reduce global warming pollution, create thousands of new jobs, and set an inspiring example for California, the nation, and the world. It's time for L.A.'s elected officials, and for the city as a whole, to reach for the sun.

# Case Studies

## District 1: Menlo Family Apartments (Koreatown)

**T**he corner of Menlo Avenue and Pico Boulevard includes a travel agency, a small bakery selling Central American pastries, and a restaurant offering Oaxacan food. The Menlo Family Apartments are a few steps down the block, in a beautiful, modern building made of tile and concrete. Inside, you can practically smell the fresh paint: The apartments opened their doors for the first time in March 2013.

Today the building is home to sixty low-income households. Half of the units are reserved for the formerly homeless, including young adults (ages 18-24) transferring out of the foster care system. Other units are set aside for families with children who are struggling with mental illness.

The Little Tokyo Service Center (LTSC) operates the Menlo complex, with support from the Koreatown Youth and Community Center. Together, the two agencies are able to offer families more than just a roof over their heads: Residents have access to a wide array of social services, and a brand-new community center next door provides classrooms and private space for meeting with counselors.

Menlo's roof holds hundreds of solar panels surrounded by magnificent views of the downtown skyline. Once the 45 kW solar photovoltaic (PV) system is fully operational, it will offset most of the electricity used in the building's common spaces.

Photo: Environment California Research & Policy Center



**The Menlo Family Apartments complex, which provides housing to low-income and formerly homeless families, has a 45 kW solar system on its roof.**



**Ribbon-cutting ceremony at Menlo Family Apartments.**

Before LTSC built the Menlo Apartments, this land contained two older residential buildings and a dilapidated motel. Little Tokyo Service Center was looking for ways to “push the envelope” in designing the new building, says Thomas Yee, who oversaw the building’s construction. Many of LTSC’s projects involved a green building component, and Yee and his colleagues were eager to do more.

One day, during a planning meeting with the lead architect, solar power emerged as a possibility. Yee and his colleagues soon incorporated a solar system into the Menlo building plans. After a hard look at the project budget, they decided that a photovoltaic system fit within their cost parameters. But Yee also secured a source of back-up funding in case the panels ended up costing more than expected.

LTSC was ultimately able to finish the project under budget, panels and all. The initial investment in solar power will reduce the building’s operating cost for

decades to come. That’s more money to spend on maintenance and programming for tenants—everything from after-school programs to life skills training.

The process of going solar has had some thorny patches: The building opened its doors six months ago, but because of LADWP delays, the solar panels still aren’t hooked up to the grid. LTSC staff are hopeful that the panels will be switched on soon.

“Kinks in the system,” explains Yee, who remains enthusiastic about L.A.’s effort to go solar. “The city has made some really great strides,” he says, particularly with LADWP’s solar rebates and the new feed-in tariff program.

Overall, Yee says, he feels “lucky” that his work addresses environmental and social issues simultaneously. “It’s really exciting to be part of an organization looking to bridge that gap,” he says.

## District 2: Sam & Jean (Studio City)

Jean is no stranger to L.A.'s sunshine. A seventh-generation Angeleno, her Southern California roots date back to 1770, when L.A. was a humble pueblo.

Jean lives with her husband, Sam, in a Studio City home that was built by her parents in 1941. Sam and Jean had been considering solar for some time, but it wasn't until last year that they finally inked the deal. Their motivation? "A horrible spike in our DWP bill," Sam says. They had "nearly doubled" the amount of power consumed, landing them in the third tier payment range.

After 33 years as an LADWP employee, Sam now spends most of his time out back in the woodshop. As a member of the San Fernando Valley Woodworkers club, he spends his days constructing children's playthings, which are distributed to various non-profit organizations around the Valley. Last year, his club assembled 750 toys. Following a month of particularly high volume production, which inevitably resulted in that "horrible spike," Sam and Jean began their search for solar companies.

Due to the slope of their high roof, they were initially unsure if solar panels would even be a possibility. Now, Jean and Sam are the proud owners of two solar arrays facing both east and south and consisting of 27 panels.

[Sam] imagines a future with "no more unexpected spikes."

They are leasing the system from Verengo, and in return will pay a 20-year fixed rate. Sam explains that in order to keep their monthly price low, they paid a lot up front for the system. But this doesn't bother him when he imagines a future with "no more unexpected spikes." The system runs on net metering, meaning any excess power generated goes back to the grid to be utilized elsewhere. They aren't paid directly for the power, but they do receive a credit on their electricity bill each month. "Fine by me," Jean says. Savings are savings. The couple switched their panels on in September, and Jean has already recommended Verengo to many of her friends.



The members of the Metropolitan Community Church in the Valley can brag about many impressive environmental accomplishments – including a substantial rooftop solar system.

## District 2: Metropolitan Community Church in the Valley (San Fernando Valley)

Reverend Bob Shore-Goss of Metropolitan Community Church in the Valley sits in his office, surrounded by books on ecology and social justice, and starts listing the changes his church has made over the past few years. Composting their food waste. Collecting rainwater for irrigation. Eliminating the use of Styrofoam. Energy-efficient lighting. A tankless water heater. A beautiful garden out back where there used to be a parking lot.

“Hope is not optimism. Hope is action,” says Reverend Bob. “We made the Earth a member of our congregation.”

Their signature achievement so far is a 90-panel solar power system on the church’s roof. When the congregation first started thinking about solar three years

ago, Reverend Bob believed that it would be “out of reach”. It would have been impossible for the church to raise the \$60,000 necessary to buy a system outright.

But through a leasing program, they were able to install solar without paying any money upfront. Now, they pay about \$200 dollars a month for the lease. Their electricity bills, which used to average about \$350 a month, have dropped to \$60 or \$70. That means that the church saves money each month through solar power.

The MCC community has been whole-heartedly supportive of the solar project. In fact, MCC now hosts regular “Solar Nights” to help people learn about renewable energy. A few years ago, the congregation won an award from California Interfaith Power and Light for their efforts to advocate for solar power.

Reverend Bob is also preaching the gospel of sustainability far and wide. He’ll soon begin leading a formal training program on sustainability for other faith leaders.

“I’m an obnoxious Jeremiah, a green Jeremiah,” he says, his laugh and his smile belying the idea of him as a doom-and-gloom Old Testament prophet.

Through a leasing program, they were able to install solar without paying any money upfront.

## District 3: Danny & Eliza (Woodland Hills)

**D**anny, born and raised in England, moved to Los Angeles 20 years ago, and he and his wife Eliza, a native New Yorker, have lived in Woodland Hills for about 10 years. As co-owner of Totum Consulting, a construction management design company, Danny spends much of his time overseeing the construction of Leadership in Energy & Environmental Design (LEED) certified buildings.

According to Danny, for his family, the decision to go solar was “really just about economics.” Woodland Hills is notorious for exceedingly hot summer days, and the family racked up \$1,000 in electrical charges during two months of particularly high air conditioning usage last year. That made solar seem especially attractive.

Danny and Eliza thought carefully about whether or not to buy their solar panels outright. “Do I want to buy the system outright, or do I want to do the typical nothing down and get discounted rates?” Danny explains. The couple considered their options: pay a full \$35,000 now and get free electricity forever, or put absolutely nothing down and be

locked into 13 cents/kW hour, just under what they were already paying LADWP. After weighing the pros and cons of each option, the couple settled for a hybrid of the two. Instead of paying the full \$35,000, a fairly large upfront cost, they put down \$8,500. Danny is thrilled to say that they are now paying half the price for their electricity, about 8 cents/kW hour, and the payback will be about six to seven years. “My intent was to have benefit not just for the environment, but also financially for me, and to improve the value of my house,” he explains, “whoever buys this house down the line will be paying half price for electricity for years to come.” And the benefits don’t end there. The happy owner of an electric car, Danny admits the two technologies go quite well together: “[the car] is already a good value for your money, and if you’re paying half priced electricity then you’re not paying much to charge it at all.”

“I reckon I’ll be saving about \$2,000 a year,” Danny says. He eagerly recommends this transition to anyone because, “you know what, you really can’t lose. I don’t understand why everybody *doesn’t* do it.”



**Danny and Eliza, homeowners in Woodland Hills, are saving thousands of dollars each year with solar power.**

## District 3: Pamela & David (Woodland Hills)

**P**am & David, like many other Los Angeles residents, initially made the decision to go solar in response to their LADWP bill. Before retiring, Pam explains, the couple wanted to renovate their home, and with incredibly high electricity bills, the two “decided to spend the money necessary to go solar.”

They opted for purchasing the system instead of leasing it, thus effectively increasing the value of their home, not only for themselves, but also for any future owners down the line. “Solar is so popular now that a lot of people want to do it, especially with the rebates,” David asserts. In fact, Pam admits, they “would not have [gone solar] without the incentives; it was too expensive.” They received both federal and state incentives, which cut the cost of the system by nearly 50 percent. And while their investment has not paid back in full quite yet, David explains that the two are happy with the transition because “it cut the heck out of the bill.” They had a quick and easy installation process with Solar Forward and the solar energy system came online about a week later. The two have been recommending solar power to friends since the system began generating electricity back in 2011.

**They opted for purchasing the system instead of leasing it, thus effectively increasing the value of their home, not only for themselves, but also for any future owners down the line.**

## District 4: Hollywood Center Studios (Hollywood)

Photo: Hollywood Center Studios

If you've ever seen an episode of *I Love Lucy*, you've watched something filmed at Hollywood Center Studios. The same goes for *The Addams Family* and *The Beverly Hillbillies*. It isn't just television, either. Have you ever seen *When Harry Met Sally?* What about *The Karate Kid*? All from Hollywood Center Studios.

John Jasper, an associate of Charlie Chaplin, founded the studio in 1919 with three stages and a small collection of bungalows. The original stages were simple steel frames hung with glass, like giant chicken coops. Early film exposures weren't fast enough to handle artificial light, so directors needed the sun to be able to shoot.

Today, Hollywood Center Studios is once again lit, at least partially, by the power of the sun. A 225 kW solar energy system installed in 2011 supplies a portion of the studio's electricity needs.

"We are very happy with what we've done," says Tim Mahoney, COO of Hollywood Center.

Alan Singer, the owner of the studio, came up with the idea and became the project's "primary mover," Mahoney says. The first motivation was economic. Lights, sound systems, cameras, greenscreens—shooting a movie or TV show requires immense amounts of electricity. The solar system allows Hollywood Center to lessen those expenses. Thanks in part to rebates offered by LADWP, the system will have a payback time of just 4-5 years.



The movies and TV shows filmed at Hollywood Center Studios are powered partially by clean electricity from the sun.

Tim and his colleagues are also excited about the idea of returning to the studio's roots. Some of the panels are installed on stages 5 & 6, on the site of the original stages built by John Jasper. The panels could have been installed elsewhere, but Singer, Mahoney, and their colleagues were "tickled" by the idea of solar on the studio's oldest stages. After almost a century, films are being shot again using the power of the sun.

"It's fun to think about," Mahoney says.



## District 4: Vedanta Society (Hollywood)

**T**he Vedanta convent looks like just an ordinary house in Hollywood, hidden behind a wall and dense shrubs. But for decades, it's been home to a community of women devoted to the practice of Vedanta, an Indian religious tradition based on the ancient Sanskrit texts known as the Vedas. The nuns spend a portion of each morning in meditation, and they gather together for prayer at noon and in the evening. In between religious observances, the nuns teach classes, run a small bookstore, and cultivate dozens of different types of flowers, which are used in worship each day.

The Vedanta Society is affiliated with the Ramakrishna Mission in India, which has hundreds of thousands of followers and whose monastic members run orphanages, soup kitchens, and hospitals. The Vedanta Society in California also maintains a sprinkling of temples, convents and monasteries in the U.S. So far, the Hollywood convent is the only one that's solar-powered.

Photo: Environment California Research & Policy Center



**Renee La Pan and Mangesh Hoskote with the solar panels at the Vedanta Society in Hollywood.**

The convent installed a 7.8 kW solar PV system on the roof in April 2013. Renee La Pan, who has been at the convent for nearly 25 years, says that the decision to go solar was motivated by large electricity bills. With almost a dozen women living in the same house, electricity usage was high, and the convent always found itself paying Tier 3 rates for power. The nuns installed energy-efficient lighting and tried to reduce their consumption, but their bills kept “inching up”.

That's when the nuns decided to turn to solar power. They considered purchasing the panels outright, or forming an LCC to buy the panels, but ultimately decided to sign a lease with Solar City instead. Thanks to the leasing program, the convent didn't have to pay any money upfront. Over the coming years, the system will reduce their electricity bills each year, even when the cost of the lease payments is factored in.

La Pan says the solar project could not have been done without the technical help of a devotee named Mangesh Hoskote, who became part of the Vedanta community in 2010, after more than 15 years working on renewable energy projects with the World Bank. Hoskote helped guide the nuns through the entire process. Today, solar provides nearly half of the convent's electricity needs.

Although the primary motivation was economic, La Pan and the other nuns were also excited about the chance to “chip away” at the problem of climate change. With carbon dioxide concentrations already above 400 parts per million, La Pan says, the world is “playing catch-up.”

But she remains optimistic about our ability to transition to a clean energy economy.

“Someday all this will be standard,” she says with a smile, gesturing to the solar panels on the convent's roof.

## District 5: Cedars-Sinai (West Hollywood)

Photo: Cedars-Sinai Medical Center

The Cedars-Sinai Medical Center has a 250 kW solar carport.



From the vast window of his 7<sup>th</sup> floor office, Peter Golerkansky, Associate Director of Engineering for Cedars-Sinai Medical Center, says he occasionally “just sits and enjoys,” his breathtaking view of downtown Los Angeles. This is where the idea of driving Cedars towards a solar-fueled future slowly began to take shape. “It’s just the right thing to do, in terms of green energy and reducing our carbon dioxide levels,” Peter asserts. A non-profit hospital, medical research and education center, Cedars-Sinai prides itself on being “forward-thinking in both healthcare and green power generation.”

The hospital’s newest establishment, the Advanced Health Sciences Pavilion, boasts a Gold Certification under the US Green Building Council’s Leadership in Energy & Environmental Design (LEED) Program. That was another reason they installed solar panels, Peter adds. The new building was designed and built to meet the requirements for Gold Certification, “and by installing solar panels we get another couple points towards that goal.” Mr. Golerkansky and his engineer-

ing team conducted the feasibility study on their own before later working with Stellar Solar during the design phase. Graycor Construction Company then completed the entire 250 kW installation in about 6 months, not a long time for a project of this size, Peter explains. The new solar carport system on the top level of their parking structure would have cost a total of \$2.5 million had they not received a \$750,000 rebate from LADWP. Peter adds, “it was so expensive because we did it on our parking structure... so a large chunk of the cost was in adhering to building codes.” Peter acknowledges that, without the rebate, Cedars-Sinai would not have gone solar. And as a result of their new energy system, facilities management has noticed a \$5,000-\$6,000 reduction in their monthly electricity bills.

Although it will take about 20 years before Cedars sees a full return on its investment, Peter remains confident this was the right choice. “We support community efforts to create a green LA... I think it’s the right thing to do.”

**“We support community efforts to create a green LA... I think it’s the right thing to do.”**

– Peter Golerkansky, Associate Director of Engineering for Cedars-Sinai Medical Center

## District 5: Fox Studios (Century City)

The solar energy market has come a long way in the last decade, as Lisa Day, director of energy initiatives at Fox Studios, can attest. Fox Studios first started exploring solar power back in the early 2000s. At the time, the cost of solar put it out of reach. But by 2007, when Fox returned to the idea, prices had fallen precipitously.

“It’s amazing what a couple years can do,” says Day.

In 2010, the studio completed a 160 kW solar system on the roof of Building 99, which houses offices, workshops and a vast film and digital archive.

Photo: Fox Studios



**Fox Studios has installed 390 kW of rooftop solar power on top of soundstages in Century City.**

The project was an immediate success, with the panels producing even more power than predicted. Two years later, Fox installed a second 230 kW solar system on Buildings 26 and 29, which are used for post-production and sound editing. The projects will pay for themselves in just four years.

Day says that the studio would love to install additional systems on other buildings, and they’re actively soliciting bids for new projects. But it’s a long process, particularly because Fox has been eager to take advantage of the rebates offered by LADWP under the Solar Incentive Program (SIP). The program accepts applications only during a narrow window of time each year, and LADWP tends to reach the application limit quickly, putting a damper on the studio’s ability to go solar. Still, Day says that Fox is determined to continue working on solar power.

Expanded reliance on solar power is just one of many ambitious environmental goals at Fox. The company has been carbon neutral since 2010, and Fox has committed to continue reducing carbon emissions by at least 25 percent per dollar of revenue by 2020. Day says that sustainability hasn’t been a hard sell at Fox: energy efficiency and renewable energy projects save the company money.

It’s a “no-brainer”, she says.

## District 6: Pat (Van Nuys)

Photos: Ameco Solar



Pat, a homeowner in Van Nuys, could not be happier with the energy savings from her rooftop solar panels.

Originally from Malta, a European country in the Mediterranean Sea, Pat spent much of her life traveling and immersing herself in the cultures of the world before eventually settling down in Los Angeles. Pat has always aimed to lead a sustainable lifestyle in order to preserve the wonders of the natural world she fell in love with throughout her journeys. So when her daughter decided to have solar panels installed over her garage in Arizona, Pat too began to imagine the potential benefits of owning her own solar energy system. “Just the idea of the sun going to waste when it could be doing all these good things made me want to go solar,” she recalls.

Pat is now the proud owner of 14 solar panels, a 3.4 kilowatt, \$21,605 system that she paid for in cash. During the hot summer months, Pat’s air conditioning used to drive her monthly electricity bills up to \$200 a month. But since her solar panels came online earlier this summer, Pat has received two bills, both with zero electricity charges. She excitedly checks her solar monitor every once in awhile to see how many pounds of carbon dioxide her system has saved so far. In just these few months, she has already saved 2,800 pounds. Already, Pat has shared her great experience with Ameco Solar to friends in Northridge, who have now joined Pat in generating their own energy and reaping the benefits of solar power.

## District 6: David & Heather (Van Nuys)

David, a production coordinator for the film and television industry, enjoys his free time outdoors, hiking or running marathons. His wife Heather, a native Angeleno, spends her days running a preschool from their Van Nuys home. The inspiration for their solar transition was “mainly environmental,” David explains. “At least we can help a little bit by doing our part for the environment.” As a marathon runner, David understands the health concerns that accompany dirty air and takes comfort in knowing that the “air *can* be a little cleaner... and will be cleaner the more people get into solar.” In addition to the rewards of a healthier environment and community, David added that their transition to solar was economical as well. “It’s crazy. You’d think there’d be a big push for this, especially since it doesn’t cost you more money to go solar,” Heather remarks. On top of federal and state incentives, Verengo offered a lot of other incentives, such as free installation and an upgrade of their electricity panels. In fact, because the couple recommended this transition to their friends, Verengo credited their account and they have not paid a bill since the system came online.

The installation process took about a week to complete and it was incredibly easy and pain-free. “It’s like we were the ‘perfect clients’ for solar,” Heather says with a laugh, because they have no tall trees and abundant sunshine hitting their roof. “David had been wanting to do it forever,” she continues,

but the couple only seriously considered it about a year ago, when Verengo started offering the leasing option. Thrilled with this alternative, they quickly went for it and have had no regrets. Now, they’ve got 17 panels at 230 watts each. With the leasing option, they pay a fixed rate that only goes up 2.5 percent per year. Heather chimes in, “and what we’re going to be paying now is already lower than what we paid before.”

“At least we can help  
a little bit by doing  
our part for the  
environment.”

– David & Heather

## District 7: Lakeview Terrace Branch Library (Pacoima)

Photo: Los Angeles Public Library



The Lakeview Terrace Branch library, one of the most eco-friendly public buildings in Los Angeles, meets 14% of its energy needs with solar power.

The Lakeview Terrace Branch Library is an environmentalist's dream. The building has it all: Undulating landscaping to catch storm-water runoff, native plants, drip irrigation, extra foam insulation to enhance energy efficiency, Forest Stewardship Council certified wood for panels and counters, low-flow faucets—even a bike rack and a horse-hitching post to discourage driving.<sup>24</sup>

The library, which was built in 2003, is one of the most eco-friendly public buildings in Los Angeles. And it would not be complete without rooftop solar power, which meets 14 percent of the building's energy needs.<sup>25</sup> Because the architects planned to include solar from the very beginning, they were able to integrate it seamlessly into the building's roof. A

casual visitor might never know that the library is powered partially by the sun.

The building's design emerged from a two-year series of community workshops and presentations, many of which drew standing-room only crowds.<sup>26</sup> The community's participation is also reflected in a mosaic wall that lines the library's interior courtyard, which is made up of tiles painted by local schoolchildren.<sup>27</sup>

The solar energy system helped the library win LEED Platinum certification in 2004. Other buildings in the public library system have since followed suit, including the Silver Lake Public Library<sup>28</sup> and the Sun Valley Public Library,<sup>29</sup> which both boast LEED Gold certification and substantial rooftop solar systems.

## District 8: Lee (Crenshaw)

Photo: Solar Forward

Some people inherit their eyes or a beautiful watch from their parents. Lee inherited an environmental ethic. Back in the 1950s, long before “sustainability” was a household word, Lee’s father warned his children that fossil fuels wouldn’t last forever. Lee grew up thinking that everyone understood the importance of environmentalism.

“Then, when I got to school, I realized: my dad’s the only one thinking about that!” he says.

Today, Lee calls himself a “big believer in being green”. For him, going solar was not a difficult decision. Lee knew that he wanted to lower his carbon footprint and take advantage of the rebate programs offered by LADWP through the state’s Million Solar Roofs legislation (SB1). Initially intimidated by the process of obtaining permits and installing the panels, he ultimately felt that it was a “positive experience”.

These days, his electricity bill is often a tenth of its former size. In some months, he pays nothing at all for power, thanks to net energy metering. He says



Lee, a homeowner in Crenshaw, has rooftop solar panels and calls himself a “big believer in being green.”

that the upfront cost of the solar panels will take a while to recoup, but he considers the investment well worth it. In fact, he’s planning to add additional panels as soon as he can.

## District 9: Los Angeles Convention Center (Downtown)

If you've ever driven through the downtown interchange between the I-10 and the I-110, then you've seen the solar panels at the Los Angeles Convention Center. The gleaming panels, which stick out from the building on giant awnings, are impossible to miss—even during the chaos of rush-hour traffic. For more than a decade, the panels have reminded tens of thousands of daily commuters of the potential of solar power.

The Los Angeles Department of Water & Power installed the panels in 2000, just weeks before Los Angeles hosted the Democratic National Convention for the first time.<sup>30</sup> The convention was powered by the solar panels and by wind energy, making it the

first national nominating convention in history to rely entirely on renewables.<sup>31</sup> At the time, the solar energy system, which provides about 15 percent of the electricity needed for the center's South Hall,<sup>32</sup> was one of the largest solar projects in the U.S.<sup>33</sup>

Now, thirteen years later, the panels serve as a reminder of how far the solar market has come. The convention center has thousands of modules capable of producing 65-75 watts each.<sup>34</sup> Today's standard modules produce 200-300 watts, meaning that if a system of the same size were installed on the convention center today, it would produce more than three times as much power—at a significantly lower cost per watt.<sup>35</sup>

**The convention was powered by the solar panels and by wind energy, making it the first national nominating convention in history to rely entirely on renewables.**



## District 10: California Baby (Baldwin Hills)

Photo: California Baby



The solar panels at California Baby, which manufactures baby care products, have reduced carbon emissions by about 123 metric tons – an amount equivalent to that contained in 13, 864 gallons of gas.

California Baby is a Los Angeles based company that prides itself on being a leader in natural baby care products. The company produces a line of organic, chemical-free shampoos, lotions, aromatherapy oils, sunscreens and more, all designed to be both environmentally friendly and safe for children. Their commitment to sustainability is evident even in the smallest of details, such as the glue used for their wallpaper decorating their eco-showroom: "It's wheat based, so you could eat it if you want," jokes Sue Farr, Office Manager.

When asked why California Baby made the transition to solar, she responds, "Why not? It is the logical next step." The company has everything under one roof: corporate headquarters, manufacturing and distribution, administrative offices, and their eco-showroom, which serves as a learning tool for parents and busi-

nesses alike, displaying pictures created with milk paint, organic mattresses, cork floors, formaldehyde-free wood, BPA and phthalate-free toys, bottles, and more. The challenge came in having to convert an incredibly inefficient 1950s building into an eco-friendly structure.

"If you're going to be manufacturing, you're creating a huge drain on the grid. So we asked ourselves; 'what is the most efficient way for us to have a system in place that generates most of the power we need?'" Sue continues, "Living in southern California it's a no-brainer. [The sun] generates a lot of power, so why not take advantage of that?"

After conducting thorough research, they hired Dave Crowell Electric to take care of the installation. The company worked together extensively to design

and re-design the project. Sue remembers the entire process as a professional, and efficient experience. For something this big, the company “wanted it done right the first time,” she explains.

California Baby now boasts a 77 kW solar photovoltaic array on its rooftop. Their system supplies over 90 percent of the building’s energy use, including production, packaging, and day-to-day administrative tasks. In the winter, when the facility doesn’t use air conditioning, the excess energy they generate runs back to the grid for homeowners or businesses to utilize. Sue chuckles, “it’s like we’re a mini energy producer.”

As for their energy bills? They’ve plummeted. “It’s amazing,” Sue says. “They went from being thousands of dollars to hundreds of dollars; that’s a huge change.” When asked if she would recommend solar power to others, Sue eagerly replies, “Absolutely. Again, it’s a no-brainer.” And while she admits that solar may be a large investment up front, she also contends that rebates and incentives “take a huge chunk out of that cost.”

California Baby is eager to share the benefits they’ve reaped from solar power with other Angelenos. Inset into one of the walls of their showroom is a monitor that illustrates the amount of carbon offset by their solar panels, as well as the total energy generated each day, week, month, and year.

“We’re showing the public, consumers that come in, here are the benefits. They physically see what we’re saving and it’s presented as something they can relate to. It’s a way to show people that this can be beautiful *and* functional,” Sue says.

The monitor shows that the company’s solar panels have prevented 123 metric tons of carbon dioxide from entering the atmosphere—equivalent to the carbon savings from planting nearly an acre of trees or avoiding the consumption of 13,864 gallons of gas.<sup>36</sup> Ultimately, Sue says, solar power is “an investment, an investment that grows,” Sue chimes in. “If you’re in it for the long run, it’s absolutely the way to go.”

Photo: Environment California Research & Policy Center



**The California Baby solar panels have prevented 123 metric tons of carbon dioxide from entering the atmosphere – equivalent to the carbon contained in 13,864 gallons of gas.**

## District 11: Palisades Pitstop Detail and Car Wash (Pacific Palisades)

**A**lex Zorensky wasn't planning to go into the car wash business. When Palisades Pitstop Detail and Car Wash came up for sale in 2010, Alex had been working in IT for years. His experience with the car wash industry amounted to washing the occasional ride for cash as a teenager.

But he knew a good idea when he saw one. He heard that the pit stop was for sale on a Friday, and by Monday, he'd given two weeks notice at his job.

"I'm very opportunistic," he explains with a laugh. He saw unused potential: the car wash had been in the same spot for 30 years and it was looking pretty run-down. He had grown up in the area and he was sure he could reinvigorate it.

After he and his brother put together enough money to buy the business, they spent months hammering, sawing, nailing, and refurbishing. Sustainability was part of their planning from the very start: they switched to all-electric pressure washers to save gasoline, and they put solar lighting into their office

space. They were determined to bring a new way of thinking to a business rarely associated with the environment.

"If you're not trying new things, you're going to fall behind," Alex says with a grin.

The car wash itself is fairly small. There's a narrow office, a bathroom, and a two-story metal awning with vehicle bays beneath. Alex and his brother worked with a contractor to replace the awning and add 64 solar panels on top. Purchasing and installing the solar panels was expensive, but it allowed them to earn rebates and apply accelerated depreciation to the entire awning project. That made the math pencil out: the awning with the solar panels ultimately cost just a "nominal" amount more than a regular awning.

They worked with Suntricity to get the panels set up. Alex has nothing but praise for the company. "Without them advocating for us, the project wouldn't have gone as well," he says.

There were a few bumps in the road; at one point, LADWP suspended the popular rebate program in order to catch up with a backlog of applications, delaying construction for six months. That put everyone on edge. But once the rebates were available again, Alex and his brother were first in line. By early 2013, everything was ready to go. They flipped the switch at a ribbon-cutting ceremony that February, becoming the first business in Pacific Palisades to go solar.

Customers are always excited to learn about the solar system, and Alex is hoping to do even more to publicize it. The sun provides all of the electricity needed for the car wash, plus a little extra, and a nearby office uses the spillover.

"This was an experiment," Alex says. So far, it seems, the results have been nothing but positive.

Photo: Environment California Research & Policy Center



**The Palisades Pitstop Detail and Car Wash has been solar-powered since February 2013.**

## District 11: St. Andrew's Lutheran (Mar Vista)

Photo: Environment California Research & Policy Center

In the years following World War II, thousands of Midwesterners streamed towards Los Angeles seeking jobs in aerospace, defense, and manufacturing. For the most part, the transplants carried their faith with them to the West Coast, and many founded new churches and congregations. One example is St. Andrew's Lutheran Church in Mar Vista, built in 1950 on the site of a celery farm.

Today, the church has a wide mix of congregants, from young families and college students to people in their 80s and 90s. The church has "an ethic of being energy conscious and interested in sustainability and ecological things," says Pastor Caleb Crainer. There's a xeriscape garden out front with desert-friendly plants, and the church uses reusable cups and plates at coffee hour. The local Boy Scout troop that uses the church's social hall once a week helps keep the congregation mindful of the environment.

It's not surprising that the small church would have started thinking about solar power. Congregants and members of the church's executive committee had talked about it for years. But extenuating circumstances—first, the death of a beloved pastor, then a series of interim replacements—made it hard to focus on solar. That changed when Pastor Caleb Crainer arrived last year. He had a reputation for being, as he puts it, "someone who does stuff", and he helped set the project into motion. After receiving bids from three companies in November 2012, the church began working with Solar Forward, which impressed the congregation with its professionalism.

Some unusual circumstances allowed St. Andrew's to buy its panels outright. Our Savior's Lutheran Church in downtown L.A. closed in 2003, and most of its parishioners moved to St. Andrew's. They brought with them all their old photos and baptismal records—and a substantial nest egg, more than enough to cover the cost of the panels.



St. Andrew's Lutheran Church in Mar Vista installed its panels in October 2013.

The decision to go solar was "not at all" financial, Pastor Caleb says; the church was primarily motivated by concern for the environment. That said, reduced electricity bills mean that the church will be able to recoup its investment within the next 10 years.

The panels were installed just a few weeks ago, in late October. St. Andrew's is still finalizing all of the paperwork with LADWP, so it may be a few months before they're producing electricity. But the congregation is already eagerly looking forward to the party they'll throw when the panels are turned on.

## District 12: Follow Your Heart (Chatsworth)

**W**ith the goal of redefining “the way food is made, eaten, and enjoyed,” four friends set out to establish Follow Your Heart in the 1970s. Originally a small 1,300 square foot health food store, Follow Your Heart has now grown into a popular market and restaurant in Canoga Park. Their café boasts a menu with a wide selection of natural, organic, and mostly vegan meals. As one of the first establishments to cater to a growing vegetarian community, Follow Your Heart eventually decided it was time to create their own line of natural vegetarian foods. “I think from the start of the company itself there was a focus on being sustainable and giving back to the Earth,” says Katie Franklin, Director of Marketing for Follow Your Heart’s sister facility, “Earth Island.”

The Earth Island solar-powered manufacturing facility is where they produce all of the products from their own line. In addition to the 113 kW photovoltaic solar system, this sustainably designed building boasts other eco-friendly features such as skylights, recycled carpeting, tank-less hot water, energy efficient lighting systems, and environmentally friendly refrigeration. According to Katie, it was “a shell of a building” when they purchased it in 2003, “so we were able to make it what we wanted and how we wanted it.”

Photo: Earth Island



**Follow Your Heart co-founder Bob Goldberg on the roof of the Earth Island Manufacturing Facility, which is 75% solar-powered.**

When the system first came online in 2003, “we were actually selling power back to the grid,” says Katie. “It was cool to think that people were possibly buying energy that we were generating,” she remembers. Thirteen years later however, Follow Your Heart’s line has grown so popular that Earth Island is in production 24 hours a day, six days a week. While they no longer feed power back into the grid, Katie says they estimate that on a good day, about 75 percent of their energy needs are still met. The panels have another benefit, she adds. “When we built this particular system, we realized that not only is it providing solar energy, it provides shade as well.” Katie explains that this further alleviates their need for air conditioning during those hot southern California days. In fact, the company is already planning on installing solar panels atop another building they just purchased down the street.

Katie says that in addition to the benefits of having had no energy costs for the first few years, they also like to use their system as a way of spreading awareness. “At the time, we were the first food manufacturer in the country to have solar panels... we wanted to show people that it’s possible, and it’s a cost-effective means of sustaining production.” And so, when asked if she would recommend this transition to other businesses, she responds that they would: “I think it’s an investment that plays out over time... not just towards the bottom line of a business, but an investment in the Earth as well.” They aren’t making profit off of the panels on their roof, but it is “supplying us with added value to our products both dollar-wise and image-wise,” Katie adds.

Throughout the life of Earth Island’s solar energy system, it will prevent the release of over 5,000 tons of carbon dioxide into the atmosphere, the equivalent of burning over 3,000 tons of coal, driving 12,000,000 miles, or cutting down 1,300 acres of forest. “We want to provide the example that this is possible...that solar power is a potential for the future,” she concludes.

## District 13: Omar (Silver Lake)

Omar had been thinking about solar for a long time, but it was Facebook that finally prompted him to make the leap. Last year, an acquaintance posted a photo online of the solar panels that he had just installed on his house, with the caption “You can do it too”. That was exactly what Omar needed to hear. He called the acquaintance shortly afterwards for advice, and soon began the process of putting panels onto his own home.

Originally from Cuba, Omar has lived in the Silver Lake area since 1998. He is an educator and administrator with the Los Angeles Unified School District, and spends part of each week teaching students about geography and environmental science. He had always believed that solar power was the right choice for Los Angeles, but he put off the process of getting panels, convinced that the upfront cost would be make them unaffordable.

“We have so much  
sunshine here...it just  
makes sense.”


– Omar

But thanks to the leasing program offered by Solar City, Omar did not have to pay any money upfront. His electricity bills are considerably lower now, and he saves a bit each month even when the lease payments are factored in. Omar says the decision was not primarily financial.

“We have so much sunshine here...it just makes sense,” he says.

## District 14: St. George Hotel (Downtown)

Photo: Skid Row Housing Trust



The St. George Hotel, a former residential hotel downtown, was transformed into low-income housing in 2004. It now includes an 8.4 kW solar energy system.

Since its establishment in 1989, the Skid Row Housing Trust has aimed to “permanently break the cycle of homelessness” through the development and construction of affordable housing in the City of Los Angeles. Originally established to preserve downtown Los Angeles’ historic residential hotels as permanent housing for the chronically homeless, the Trust now boasts 24 affordable housing developments, totaling up to 1,500 apartments.

Mike Alvidrez, executive director for the Trust, explains the importance of permanent supportive housing for those who are chronically ill or homeless. In addition to designing, constructing, and managing these apartments, the Trust provides additional on-site services such as health care clinics, mental health services, benefits advocacy and counseling. By giving people a home and the resources to find a job and live healthier lives, the Trust ensures that fewer and fewer are forced to return to the streets.

“It’s a challenge for us to be able to maintain the building and provide these services,” Mike says, “and one of the ways that we can do that is by lowering our energy cost and consumption.”

Reconstructed and re-opened in 2004, the St. George Hotel was one of the first multiunit sites on the West Coast to be chosen as part of the BP Solar Neighbors Program, established to help low-income families lower their utility expenses through environmental measures. BP Solar donated an 8.4 kW solar energy system consisting of 48 panels, all expected to save the Trust about \$2,000 annually in utility expenses. “The addition of solar was one way to help reduce our operating costs,” Mike explains, “and we have been saving on our energy bills ever since.”

However, the addition of solar panels to the St. George Hotel “is more than just a gift,” Mr. Alvidrez adds. The panels also serve as a reminder to residents that “thinking green should be a part of the way we conduct our daily lives,” he says. In fact, the Skid Row Housing Trust has already installed a solar energy system atop their New Genesis Apartments and is excitedly pursuing LEED platinum certification for yet another apartment. “We know that there are savings there and we want to reduce both our consumption and our cost. We aim to be responsible builders of homes that improve the quality of life for the homeless, but that also have a built-in environmental concern.”

## District 14: The Original Los Angeles Flower Market (Downtown)

The Original Los Angeles Flower Market sells every type of flower under the sun: lilies and daisies and roses; orchids by the dozens; exotic blooms with names like “Spider’s Mum” and “Snow on the Mountain”.<sup>37</sup> Hundreds of thousands of people visit the market each year.<sup>38</sup> Professional florists and event planners pick out new varieties and stock up, while ordinary tourists wander happily through five acres of sweet-smelling blossoms.<sup>39</sup>

Thirty flower growers founded the market in 1921 in a garage on Winston Street.<sup>40</sup> A few years later, they moved to South Wall Street, right at the heart of the fledgling L.A. floral district.<sup>41</sup> Today, the area is the single largest and most successful floral district in the United States.<sup>42</sup>

In late 2010, the directors of the flower market installed a 280 kW solar system.<sup>43</sup> They’d thought about going solar for years, explains Dan Marnien, owner of SunLife Solar Power, who designed and

helped manage the solar installation. The owners “really wanted to go green”, but also needed to see a certain return on investment. By 2010, the project was a “no brainer”, thanks to years of declining panel prices and a rebate from LADWP that covered half of the project’s up front cost.

The layout of the market required innovation and creativity. The solar panels were spread across eight buildings and six different street addresses, with all the panels connected to a single meter in the corner of the market. “I’ll never have to design another project quite like that,” Dan says, laughing.

When completed, the solar project was the largest privately-funded solar installation in metropolitan Los Angeles.<sup>44</sup> Today, it’s producing even more power than initially projected. The system will save the market about \$1,750,000 over the next 25 years, in addition to preventing the emission of 8,700 tons of carbon dioxide.<sup>45</sup>

Photo: The Original Los Angeles Flower Market



Dan Marnien of SunLife Solar and Jim Mellano and Maryellen Blyzka of the Original Los Angeles Flower Market, with the Flower Market’s solar panels in the foreground and the downtown skyline in the background.



## District 14: Fresh & Easy Neighborhood Market (Eagle Rock)

**F**resh & Easy opened their first store in Los Angeles in 2007 when Tesco, the British super-market giant, decided to move into the U.S. market. The chain expanded rapidly, growing to 200 stores in three states by December 2012.

Sustainability was a focus from the start. Many of the U.S. stores were built new from the ground up, making it easy to integrate energy-saving technology; Fresh & Easy stores use 30 percent less energy on average than traditional supermarkets. That fits nicely with Tesco's ambitious environmental goals. The company has pledged a 50 percent drop in carbon emissions by 2020 and carbon neutrality by 2050, and it requires its subsidiaries to show constant improvement in their energy and resource use.

Many people at Fresh & Easy, including the company's CEO, were excited about solar power from the very beginning. "We really wanted to do it," explains Angus McGill, Property Services Director.

But moving from idea to installation still took a long time. First, McGill and his team had to identify stores where rooftop solar would make business

sense. They ultimately chose just one store in L.A., a 15,000 square foot Neighborhood Market at the corner of Eagle Rock and El Paso. They designed a 295K DC Watt PV system that allowed them to take advantage of rebates offered by LADWP.

Working with REC, McGill and his colleagues secured the necessary permits from DWP and installed the panels in 2010. Today, solar meets approximately 40-50 percent of the store's electricity needs.

Fresh & Easy has also committed to solar for some of its other facilities. The company's Riverside distribution center has one of the largest rooftop solar energy systems in California, and 10 of their Arizona stores also have solar panels.

Fresh & Easy Company has since changed hands; Tesco just sold the chain to the Los Angeles-based Yucaipa Companies. But the Eagle Rock store is expected to stay open for business, with its solar panels continuing to generate clean power and energy savings for years to come.

**Fresh & Easy stores use 30% less energy on average than traditional supermarkets.**

## District 15: Rolling Hills Prep (San Pedro)

Since November 2012, solar panels have provided the majority of the power for Rolling Hills Prep, a school in San Pedro for students in grades six through twelve. Rolling Hills shares the campus with the Renaissance School for Arts and Sciences, which educates 50 middle and high school students with learning disabilities. The two schools moved to a hilltop in San Pedro in 2007 after more than two decades in a rented space in Palos Verdes.

The new campus came with a valuable resource: hundreds of square feet of flat rooftop space. Peter McCormack, the Head of School, immediately recognized the potential. He had studied physics as an undergraduate and wrote his thesis on alternative energy in the 1970s.

“Twenty-plus buildings with flat roofs,” he says. “Not every school is blessed with that kind of space.”

Rolling Hills Prep contracted with RSB Funds, LLC, which helps non-profits put together financing for solar projects. A leasing arrangement means that the school paid no money upfront. Soon the school boasted 702 solar panels—enough to cover every roof on campus. From start to finish, the entire process took 3 months.

The system now covers about 80 percent of the school’s energy needs. Electricity bills have plummeted, and the school saves money every month, even once the lease payments are factored in. McCormack says that the savings will only grow over time: even as electricity rates rise, the school’s lease payments will stay the same.

In a few months, the students themselves will be able to tell you exactly how much money the school has saved. The high school environmental club is working on a detailed analysis of the electricity produced by the panels, the school’s costs, and the total financial benefit.

Photo: Rolling Hills Prep



**With lots of flat rooftop space and plenty of sun, the campus of Rolling Hills Prep is perfect for solar power.**

Without the leasing program, it wouldn’t have been possible for the campus to go solar. Rolling Hills is “not a cash rich school,” McCormack says. “We couldn’t have dipped into our pockets.” But the fact that the school didn’t have to pay anything upfront made the decision easy.

“It was not a hard sell,” McCormack says.

The school’s environmental focus spills over into the curriculum in other ways, too. Students take week-long wilderness trips each year, and many work in the school’s community garden. The school recycles “like mad” and has banned plastic water bottles.

The motivation behind the school’s green initiatives is simple. “It’s just the right thing to do,” says McCormack.

# Conclusion and Policy Recommendations

All over the city, schools, businesses, community groups and individuals are already reaping the benefits of rooftop solar power. Solar is cleaning the air, reducing global warming emissions, and creating jobs. But L.A. still has a long way to go before reaching its full solar potential. City officials should lead the transition to a solar-powered future by making 1,200 MW of rooftop solar into an official city goal.

Key steps to achieve this goal include:

- **LADWP should fully implement and maintain the integrity of the 150 MW feed-in tariff program by 2016.** In January 2012, LADWP announced the creation of a 150 MW feed-in tariff (FiT), which allows solar customers to be paid directly for the energy that they produce. The first two tranches of the feed-in tariff program have already created a burgeoning market for solar on warehouses, parking lots, and commercial buildings. LADWP should confirm that the third tranche of the FiT program will happen in February 2014 with a guaranteed price of 15 cents per kilowatt-hour, and should ensure that the program stays on track through 2016.
- **LADWP should expand the FiT to 600 MW by 2020.** Expanding the program to 600 MW will create \$2 billion in private local investment and about 16,000 job-years of employment.<sup>46</sup>
- **LADWP should meet and exceed the 280 MW capacity goal originally set forth for the utility under California's Million Solar Roofs Initiative (SB1).** The utility can achieve and exceed this goal by providing expanded rebates for Angelenos to go solar on their own homes and businesses, as well as by increasing consumer access to net metering. Providing opportunities for consumers to participate in net metering is crucial to ensuring the continued growth of the residential solar sector.
- **LADWP should diversify the city's solar energy consumer base.** For example, LADWP should create policies specifically designed to help non-profit consumers who cannot take advantage of federal tax credits: renters, those whose roofs are not well suited for solar power, and low-income consumers.
- **LADWP should simplify, standardize and accelerate permitting, interconnection and billing procedures.** Many of those interviewed for this report reported long delays and confusing bureaucratic procedures. Other jurisdictions, like the city of San Jose, CA,<sup>47</sup> offer one-page permit applications for solar projects. LADWP should follow their lead and make the solar installation process quicker and easier to understand.

- **LADWP should work with consumers and solar installers within LADWP territory to improve communication and transparency.** Information about the status of solar contracts is often delayed or out-of-date; LADWP should ensure that this information is accurate and readily available. LADWP should also confirm that the staff budgeted for solar programming have been hired and that they are meeting scheduled goals. Improved communication and transparency will increase confidence in the utility and make it easier for Angelenos to go solar.
- **City leaders should continue to support efforts to improve the quality and expand the reach of green job training programs in Los Angeles.** Rooftop solar could provide thousands of good jobs in some of the city's most under-resourced neighborhoods. By continuing to support solar training programs, city officials can ensure that L.A. residents are ready to take advantage of the employment opportunities created by expanded use of rooftop solar.

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