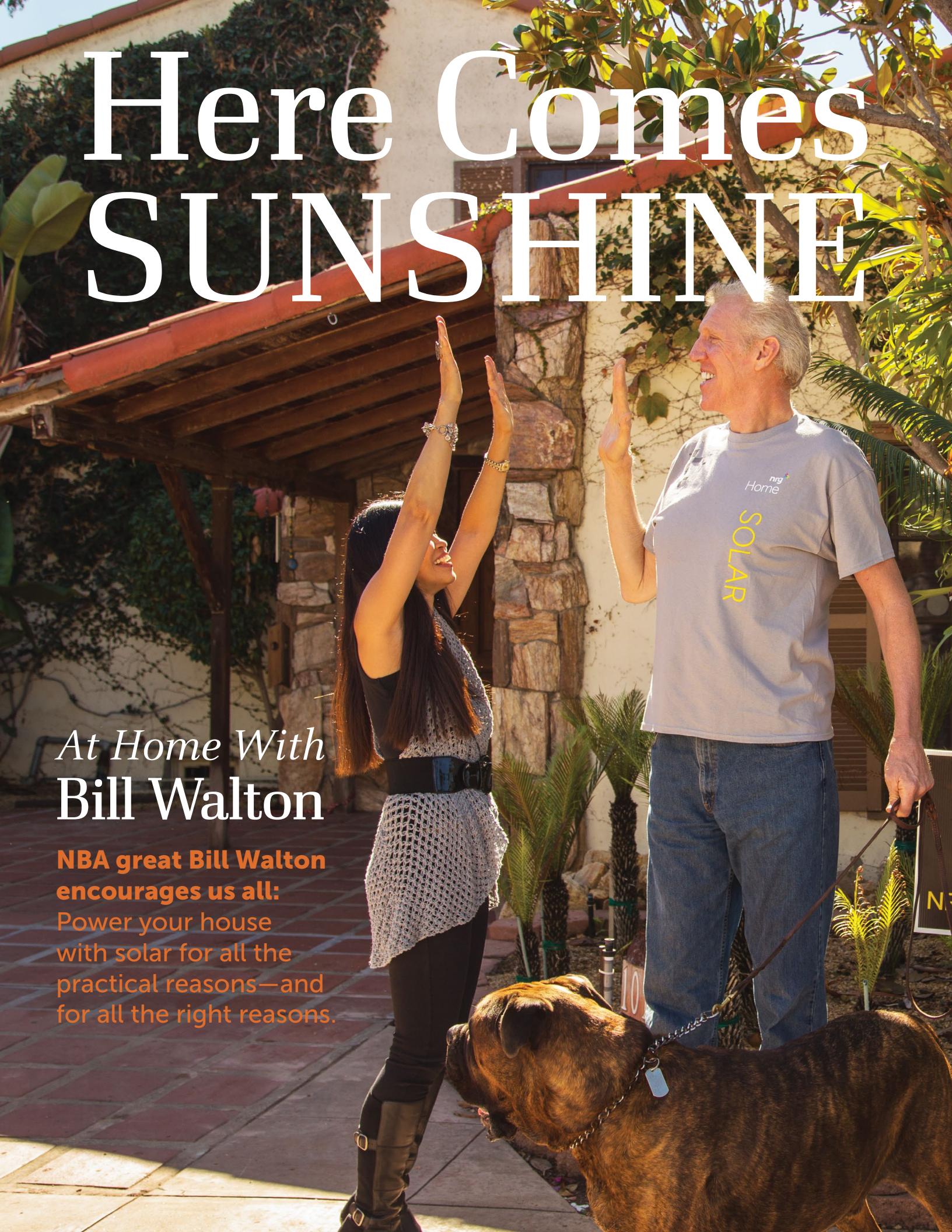


# Here Comes SUNSHINE

## *At Home With* **Bill Walton**

**NBA great Bill Walton encourages us all:**  
Power your house  
with solar for all the  
practical reasons—and  
for all the right reasons.







Bill Walton's sprawling home in California is powered by NRG Home Solar's PV panels. "Solar is the biggest no-brainer in the world," Walton says.

**I**N FEBRUARY 2008, Bill Walton, one of the 50 greatest players in NBA history, suffered a catastrophic spine collapse—the culmination of a lifetime of injuries. In debilitating pain and unable to walk, he underwent pioneering surgery and made the slow, painful climb back to health.

"When I was lying on that floor with my spine problem, I asked myself: 'If you ever get better and get off this floor, what are you going to do with rest of your life?'"



Walton, his wife, Lori, and dog, Cortez, walk near their solar-powered home.

## A Ray of Hope

The commitment Walton opted to manifest had nothing to do with basketball, sportscasting, or the Grateful Dead (having attending 880 of their concerts)—it had to do with the planet: "I made the commitment that I would work to help bring every person access to clean power. That is the future. We all have to make the choice to be part of the future, to have clean air and clean water so everyone can move forward in life. And it all starts with the solar: the biggest no brainer in the history of the planet."

Perhaps this was an obvious choice for him; the parallels between solar power's evolution and his comeback from adversity are unmistakable. "When you have a catastrophic injury, if you don't make the adjustments you have to make it will be too late," he says. "I have always been an athlete and health conscious and work at the greatest level of efficiency. Then, when my spine failed it took it to another level. I had to do everything to get



Watch this video, which shows the solar install on Bill Walton's house.

better, and there was zero margin for error. We are at that same point with the Earth, our big home. *Everything* we do has to address climate change and resource management."

## VIEWS FROM THE MAINSTREAM

What do hobby farm enthusiasts, a desert dweller, and a sustainable architect have in common? They are all using NRG Home Solar to save money and improve their lives. Check out the videos with their personal stories.

### ANN, MARRIAGE COUNSELOR

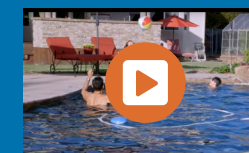


Ann is a marriage counselor, mother/grandmother, and widow, living alone in Phoenix. "The weather is hot here," she says. "I run my air conditioner 24/7." She needed to find affordable ways to beat the heat. NRG Home Solar team helped

her achieve that. "It made a difference in my fixed bills," she says of her solar install. "In August 2011, before the panels were installed, my bill was \$408.46. In 2014, after panels, it was \$121.78." The savings she reaps allows her to travel, see her grandchildren more often, go to Europe, and enjoy her life. "Your home is an energy system," she says. "It has to support you."

"It's so friendly," adds Connie. "We don't have to do anything, but we can see how much we are making. NRG Home Solar made it nice to retire and know our expenses are the same. We can pursue and accomplish something that we have looked forward to for a long time."

### LORENZO, ARCHITECT



Lorenzo is an environmental architect who focuses on designing sustainable buildings. Everything he creates, from skyscrapers to city halls, has to meet the highest standards for conserving energy and saving money.

"All architects are sustainability minded," Lorenzo says. "What we are trying to do now is produce energy on site where it is being used and to help leave the planet in better shape than we found it." Not only does Lorenzo spec solar at work, but he put solar panels on his own home. "I decided on NRG Solar because it is economical and made the most sense for us. It is one thing to be sustainable--and I like to be sustainable--but the reality is that it made sense from a financial standpoint. We saw an immediate savings. The solar array more than covered the energy use in the house and is powering our electric car as well."

### PAUL AND CONNIE, RETIRED



Paul and Connie retired to their dream hobby farm. To help make their dream a financially-sound reality, they contracted with NRG Home Solar to install solar panels on their property.

"I can go online on my Smartphone and see how much electricity I am making, what I've done for the year, and what I've done since the system was put in," Paul says.



The most obvious first step to curbing climate change is switching our fossil-fuel burning power system to renewable energy, says Walton. It pains him to talk about the foot-dragging that goes on around solar adoption, hampering the arrival of a new era of clean power. “Everything about the solar message is positive,” he emphasizes. “So many people like to sell fear and death and be negative, but you can’t tear down solar’s message of hope and empowerment.”

Walton points to all the undisputable facts about solar that have him convinced that adoption must accelerate. Top of the list? *Every hour the sun produces enough non-polluting energy to power the globe for a year.* “Solar power is a natural resource that is endless, and all we have to do is harness it,” he says.

Walton can systematically debunk the most pernicious solar myths that hamstring broader adoption (detailed in the nine solar myths in this book). “Our challenge is dealing with people who say: I don’t understand it, or I can’t afford it.” Challenges, to be sure, but as Walton learned by exploring solar power generation for himself, the facts and the financial rewards speak for themselves.

## Let the Sun Shine In

Walton and his wife Lori have four sons and eight grandchildren “with more announcements it seems like daily.” His family is top of mind when determining how to create a positive change in the world. While he works for charities, such as the Better Way Back, which helps spinal injury patients, and the Challenged Athletes Foundation, he joined NRG Home Solar, parlaying his name brand and talent as a spokesperson to bring the sun-filled message of hope to others.

“I partnered with NRG Solar because it is a great company that offers people no money down in most markets, and they handle all of the heavy lifting.”

Walton insists NRG’s business model is the right approach to entice more people to consider solar. By making the process easy and affordable, solar moves from the custom homes of the affluent and early adopters to the rooftops of mainstream Americans.

As he learned more about solar’s benefits, Walton began to install PV panels on his own home in San Diego—a lot of PV panels. In fact, he plans to cover the entire tiled rooftop of his California “hippie den” with them.



**Walton plans to add more solar panels to his rooftop over time.**

“I am willing to stand up and say that I am going to do something today,” says Walton, of his extensive solar install. “I am proud of the NRG solar team and committed to the cause and vision. This is the future, and I want to be part of the solution.”

Walton’s goal is to be completely off grid and as sustainable as possible in the near future. “I installed rainwater catchment to help with irrigation, which is powered by the solar electrical system. We have a 34,300-gallon rainwater system. We are going in the direction of water co-creation from air, all of it powered by solar.”

“And we are going for more,” he says, a sweeping statement that hints at his willingness to stay on the vanguard of new ideas and best practices for sustainability. As they emerge, Walton will be there pondering their application, not just for his own home, but as larger solutions for a warming planet.

# SOLAR MYTHS DEBUNKED



## **SOLAR MYTH 1:** Solar Will Get More Efficient So I Should Wait

**Fact:** We’re still using the same solar technology we did back in the 1960s. Since then, solar has become only moderately more efficient (unlike computers or cellphones which experience dramatic improvements in short periods of time.)<sup>1</sup> When panels become more efficient, it simply means you wouldn’t need as many, because they’re better at converting. Given stable technology profile and various state and federal tax incentives and rebates, solar is more affordable than ever and makes sense right now. Once installed, the panels will continue to work for decades.



## **SOLAR MYTH 2:** Solar Doesn’t Work in Cool, Cloudy, or Foggy Climates

**Fact:** Solar panels work great in ambient light and will produce significant energy in the fog or on overcast days. In fact, solar panels are almost equally as efficient at cooler temperatures than hot ones.<sup>2</sup> Although this might seem counter-intuitive, consider that solar panels on a rooftop in cool, foggy San Francisco produce nearly the same than a home in nearby Sacramento, where it’s sunny and hot. Consider too that Germany leads the world in residential solar right now, and doesn’t have a sunny climate.<sup>3</sup>



## **SOLAR MYTH 3:** I Will Have an Excess of Energy that Will Go Unused and Will Be Wasted

**Fact:** Nearly all modern solar panel systems are connected to the conventional electricity grid. When this happens, your meter spins backwards and your utility company credits you for that power. This grid tied method tends to be the most convenient for homeowners. In many states, you could be paid for your power in a process called net metering. Batteries are an option for those who want them as well, but they tend to be less-reliable and take up unnecessary space.



## **SOLAR MYTH 4:** Solar Panels Require Maintenance

**Fact:** Solar panels have no moving parts and do not require regular maintenance. Typically, we recommend hosing them off once a year or so, but many panel owners actually never clean the panels and instead rely on the rain to do the job for them. Rain and rinsing will cause only a very slight loss in efficiency (about 5%). Furthermore, our team offers 24/7 system maintenance and monitoring, so you can rest easy knowing that your solar system is shining at its brightest capability and if it is not, we have a performance guarantee to cover underproduction.



## **SOLAR MYTH 5:** Solar Panels Will Cause My Roof to Leak, Deteriorate, or Collapse.

**Fact:** Solar panels actually protect and preserve the portion of the roof they cover.<sup>4</sup> Plus, most solar panels are not attached directly to the roof itself, but rather to a mounted railing system. Solar engineers add sealants to fill in any gaps and often the mounts are surrounded by metal coverings that act as an [extra barrier from the elements.



## **SOLAR MYTH 6:** Solar Is Still So Expensive That It Will Never Be Able To Pay For Itself

**Fact:** Many customers notice excellent savings when they go solar.. Modern financing options have all but eliminated the barrier to entry for solar, so many households are now able to go solar for little to no money down in most markets. Solar is one of the very few household purchases that could actually offer you short-term and long-term savings.



## **SOLAR MYTH 7:** When the Power Goes Out, My Home is Still Powered

**Fact:** When the power goes out, grid-tied systems go out too. That’s because it’s not safe to be pushing electricity back out onto the wires while workers may be trying to fix the problem. Your inverter (the big box near your meter that turns DC electricity created by the panels into usable AC current) recognizes that the grid is out and shuts your system off. A possible solution is a generator, which reduces the worry of ever losing power.

**Learn more about our generators**



## **SOLAR MYTH 8:** Solar Will Look Ugly on My Roof

**Fact:** In the last 10 years, there’s been a growing awareness of how smart renewable energy is from both environmental and economic perspective. So solar panels are finally coming into their own and being regarded as an enhancement instead of an eyesore. Homeowners’ associations that used to be steadfastly against solar have changed their policies and are now going solar in groups.



## **SOLAR MYTH 9:** Solar Panels Require a Tracking System to Follow the Angle of the Sun

**Fact:** Though tracking mechanisms can provide efficiency gains for your solar panel system, they typically do not increase efficiency enough to justify the additional expense and maintenance of moving parts in residential situations. Simple, cost-effective and stationary panels on your roof can quickly help you take control of and start saving on your energy.

## RESOURCES

<sup>1</sup> [https://www1.eere.energy.gov/solar/pdfs/solar\\_timeline.pdf](https://www1.eere.energy.gov/solar/pdfs/solar_timeline.pdf)

<sup>2</sup> <http://scienceline.ucsb.edu/getkey.php?key=2668>

<sup>3</sup> <http://www.sfgate.com/homeandgarden/article/Solar-rises-over-Fog-City-Solar-panels-are-now-2601079.php>

<sup>4</sup> <http://www.consumerreports.org/cro/news/2015/solar-power-is-one-way-to-meet-obama-s-energy-saving-challenge/index.htm>





**NRG Home Solar installers at work atop Walton's house.**

## Sunlight: The Most Precious Gold

When Walton talks about solar, the conversation stays personal and on the scale of the individual because to him, it just doesn't make sense that—given the iron-clad facts that make going solar a “no-brainer”—people wouldn't immediately switch their power source to the sun. But he also looks at it from a macro perspective.

“Solar power is an example of the American dream,” he explains. “The whole sense of chasing our dreams and building our life is encapsulated in the solar industry.” He cites concepts or pillars that bring happiness, which most people can identify with: health, family, community, and world. “When you go solar, you think, ‘I am doing the right thing and while what I'm doing makes great financial sense for me, it also makes sense for others in the world.’”

Clean power lowers health costs, lowers the carbon footprint of the planet, and builds self-reliance, Walton continues. “It drives us all to a state of conscious well-being, allowing us to move forward as individuals and as a team.”

When he refers to “team” he is not only referring to neighborhoods and larger communities, but also to the burgeoning solar industry and the upsides it represents.



**Walton became a spokesperson for NRG Home Solar because he believes it offers the best solar leasing program for consumers.**

# STORM-READY SOLAR

This storm-resistant coastal house, which placed First in the 2015 Solar Decathlon, shows how solar can provide an energy hub during emergencies.

The Solar Decathlon, a biennial event sponsored by the U.S. Department of Energy (DOE), is a good place to look for inspiration and innovation. The inaugural Solar Decathlon was 2002 on the National Mall the latest and seventh competition was held in Irvine, Calif., last October.

This was Stevens Institute of Technology's third Solar Decathlon competition. This year, the team took the legacy of Hurricane Sandy into account, asking, “How can we design a home that both reduces energy use and adapts to the realities of a changing more extreme climate?”

The team's winning answer is the SURE (Sustainable and REsilient) HOUSE, a highperformance solar-powered house, not only armored to take weather extremes but prepared with a source of emergency power in the aftermath of a storm.

The twobedroom SURE HOUSE is 999 square feet. In style, it is a midcentury modern beach house, but it sips energy à la the 21st century and closes up tight to resist bad weather.

SURE HOUSE features what the Stevens Institute team describes as a “storm-rugged PV system” that not only continues to supply power when the grid is down, but can also help neighbors. The array is designed to safely allow a small amount of “islanded”—that is, cut off from the main grid—energy generation during a power outage, without any batteries at all. Part of this energy is directed to a hub outside of the house, allowing neighbors to charge their electronic devices via exterior USBs.

A separate building-integrated PV array is integrated into lightweight fiber-composite shutters that shade the home's southern façade. The solar modules are flexible and thin, using plastic polymer instead of the traditional “heavy glass sandwich layers.” The light weight makes it easy for homeowners to easily raise and lower the storm shutters.

When lowered, the solar shutter system locks into place using a series of latches and watertight EPDM seals. The fiber-composite material consists of “a sophisticated matrix of reinforcement fibers:” glass, carbon and even biofibers such as flax combined with plastic binders. The material is high strength, low weight and durable enough to survive fierce storms.

The domestic hot water system was also designed for resilience. The BIPV array delivers DC power to the control unit and heating element, which means it functions without an inverter or the need to be tied into the power grid. An integrated heat pump is triggered when there's not enough direct solar energy to keep the water temperature above the set point. Even in “heat pump mode,” this system is 70 percent more efficient than a conventional electric water heater.

With its tight envelope, thick insulation and heat recovery ventilation, SURE HOUSE exceeds Passive House standards for energy use and can be physically raised to avoid what the team described as “periodic nuisance flooding.” The combination of the shutters and a louver system helps to keep out both the high summer sun and lower-angle sunlight, which can also raise indoor temperatures.



**NRG Home Solar supplied the LG solar panels for the rooftop array, which provides the bulk of the home's renewable energy. The PV array produces up to 10,000 watts when the grid is functioning; when the grid is down, the transformerless inverter switches to “Resiliency Mode.” Isolated from the grid, the array still produces up to 3,000 watts.**

Credit: Attribute to Solar Decathlon 2015, DOE





"There are good jobs in solar energy with benefits for those who want them," Walton emphasizes. "There is such a huge business opportunity for a company like NRG—and anyone ready to get involved—so many homes that need this. And that doesn't count all the other applications, such as commercial rooftops, portable solar, floating solar arrays. It will only get better and better as brilliant minds come into this space."

Walton points to Denmark and Australia, aiming for 100 percent renewables and the solar inroads Governor Jerry Brown has implemented in California. "It makes me proud to watch them move in the right direction," he says.

## Stand a Little (Inside) My Sun

"Those who bring sunshine to the lives of others cannot keep it from themselves," said Scottish dramatist James Matthew Barrie—an apt description for Walton and his relentless work to spread the word on solar power.

"I am the luckiest guy in the world," he says. "I have had 37 orthopedic operations. Both of my ankles are fused. My knees, hands and wrists don't work. I have a fused spine. And I just had my knee replaced after dragging that bad leg around for the last 46 years. Other than that, everything is fine. Strangely, I am a better and happier person today because of all the troubles."

In Walton's mind, his life is chock full of opportunities, and the setbacks are merely teachers. "Life is a series of choices," he says. "You need to ask yourself, 'Where am I going?' Then answer: 'I am going to contact NRG, and I want to join that

team. I believe in a better tomorrow, and I am not interested in hanging on to the old way. I want to build on a dream that is reality. I want to be on the winning team that stands for something, not just material accumulation or physical gratification. This is a dream, and it has real meaning and real value to everyone and everything—us, the flora and fauna, the animals, and the oceans."

He puts the words right in your mouth, doesn't he? This is his particular genius as a motivator and a believer.

"I, Bill Walton, am a solar evangelist. I am selling hope. I am seeing a vision for a better tomorrow. That's the world I want to live in."

## Shine Your Light.

Every day, you can do your part in a cleaner, more-sustainable energy future. And you won't have to lift a finger.

At **NRG Home Solar**, we provide the technology and equipment and deliver a customized, turn-key solar solution to best fit your home. Savings are waiting with every sunrise.

NRG Home Solar provides rooftop solar in New York, New Jersey, and Massachusetts. For more information about availability in your area go to [www.nrghomesolar.com](http://www.nrghomesolar.com).

- \$0 Down in most markets
- Worry-free warranty, monitoring and maintenance
- Quality craftsmanship installation at no cost
- Locked-in rates to protect against rising utility rates

Today—right now—we're headed for a brighter, cleaner tomorrow, one sunray at a time. And you'll be joining us in committing to the smart energy revolution. Part of NRG Energy, a Fortune 200 Company, NRG Home Solar has the expertise and track record to help you get the most out of your solar decision.