



# IMPACT REPORT

**2017**





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## ABOUT SUNRUN

Sunrun (Nasdaq:RUN) is the nation's largest residential solar, storage, and energy services company. With a mission to create a planet run by the sun, Sunrun has led the industry since 2007 with its solar-as-a-service model, providing clean energy to households with little to no upfront cost and often at a savings compared to traditional electricity. The company designs, installs, finances, insures, monitors, and maintains the systems, while families receive predictable pricing for 20 years or more. Sunrun also offers a home solar-battery service, Brightbox, that manages household solar energy, storage, and utility power with smart inverter technology.

For more information, please visit [www.sunrun.com](http://www.sunrun.com).

## ABOUT THIS REPORT

Our mission is to create a planet run by the sun. This means that everyone, from solar installers and sales people to CEO Lynn Jurich, shows up to work because they are driven by passion and purpose. Yet mission alone does not make change. While we've been able to create a business out of our belief in a better, greener, and kinder planet, we also know that our purpose goes beyond putting solar panels on rooftops—it extends to our internal values as well. We believe in being global citizens with a responsibility to minimize our environmental impact in all aspects of our operations, providing a safe and diverse place to work for our employees, and ensuring robust corporate governance practices. For Sunrun, this is the definition of good business, and one that we believe will both drive the highest returns for our stakeholders and make the strongest long-term impact on society.

This report is the first of its kind for our company. Its purpose is to evaluate and understand the impact of our internal and external practices on the world around us. We see this as a holistic tool for ourselves, our shareholders, our partners, and our customers to measure our success as a sustainably-focused business.

# A LETTER FROM LYNN & ED



**Edward Fenster**  
CO-FOUNDER  
EXECUTIVE CHAIRMAN

**Lynn Jurich**  
CO-FOUNDER  
CEO

When we founded Sunrun in 2007, we knew that solar was going to be a breakthrough technology in the clean-energy revolution. Not only is it emissions-free and renewable, but it also works on an individual scale and benefited from massive cost improvements. We saw an opportunity to change a polluting, antiquated energy system into one that is local, responsive, and powered directly for and by consumers. We had a novel goal—we believed that solar could best be used in the hands of the consumer, establishing a more independent energy future. So while other players in the renewable-energy industry were focusing on using solar within the existing system—building big solar-power plants in the desert—we felt we could build a more efficient system and help households save money by enabling them to install solar and produce energy where it is used.

We launched our solar-as-a-service business model that year. The idea is simple: Sunrun pays to install the system, owns and takes care of it, and then sells the electricity produced by the system to the household. From the start, this model underscored the way we've merged our company's economic value with its social mission. The solar-as-a-service model democratizes solar, carving a path toward a future planet run by the sun.

It didn't take us long to find out that our hunch was right. Consumer demand has been strong and cost reductions significant. Today, Sunrun has more than 180,000 customers and sells solar-energy service in 23 states, contributing to the 1.5 million American families that have adopted home solar.<sup>1</sup> Sunrun's solar homes have already saved more than \$200 million<sup>2</sup> on their electricity bills, with the majority opting to make no upfront investment. At the same time, they are supporting their communities by creating local jobs, cleaner air, and a healthier environment. Sunrun's deployed solar systems are expected to prevent 34 billion tons of greenhouse-gas emissions over their lifetimes, which is equivalent to taking more than 7 million passenger cars off the road for a full year.

During the last decade, the solar industry has grown exponentially from a niche service to a source of energy for everyone. On average, Sunrun installs a solar-energy system somewhere in the United States once every three minutes,<sup>3</sup> and this pace is accelerating. Sunrun is building a consumer-centered energy system, one where consumers are free to generate their own clean energy and have control over how and when it is used.

Sunrun was built on faith in this future. We saw the potential for solar electricity in the United States and made an unwavering commitment to help others tap into that potential. That's why we are investing in the latest industry developments, including bolstering the resilience and reliability of the U.S. energy system and advancing the adoption of home battery storage by adding it to our solar offering. We will never stop striving to be the company of choice for Americans who seek clean, reliable, and affordable energy freedom through solar electricity.

## LYNN JURICH

Co-founder and Chief Executive

## EDWARD FENSTER

Co-founder and Executive Chairman

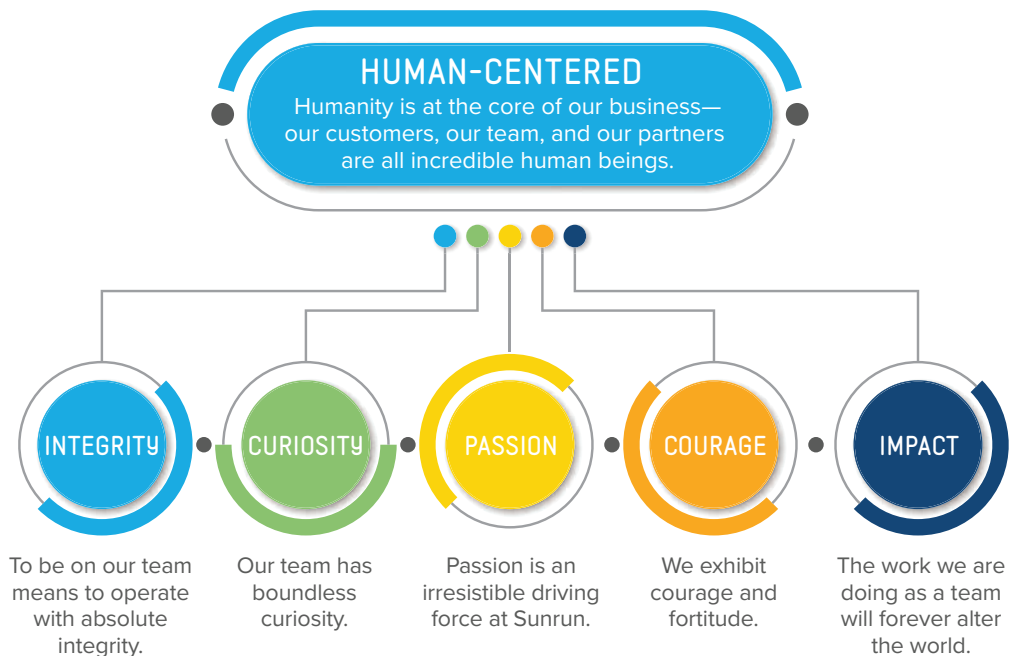


## OUR CORE PHILOSOPHY AND VALUES STATEMENT

### OUR MISSION IS SIMPLE: TO CREATE A PLANET RUN BY THE SUN.

This is an important step in confronting climate change, the biggest threat to our planet. We undertake this mission in accordance with our values.

We use a human-centered approach to deliver solutions that are most impactful to creating a planet run by the sun. This core philosophy is complemented by the following values.



No matter where you work or who you are at Sunrun, these traits drive every team member to come to work and do their best. As Sunrunners, we promise to embody these values every day and bring them to our customers and partners.





## OUR YEAR IN NUMBERS

With Sunrun, going solar gives households the freedom to create their own energy and take control of their future. It's also about protecting the planet for future generations to enjoy. Since 2007, we've grown from a startup with small but meaningful impacts on the energy system, to an industry leader with significant and growing impact.



Sunrun is installing a new solar system **EVERY 3 MINUTES**.



We have deployed **1,202 MEGAWATTS** cumulatively to more than **180,000 CUSTOMERS** through 2017.



Our systems have produced nearly **4 BILLION KILOWATT-HOURS** of clean energy since 2007.<sup>4</sup>



Customers have saved over **\$200 MILLION** on electricity bills.<sup>5</sup>



Sunrun's systems have prevented greenhouse-gas (GHG) emissions totaling **2.7 MILLION METRIC TONS OF CARBON DIOXIDE EQUIVALENT** (CO<sub>2</sub>e) from entering the atmosphere since 2007 an amount comparable to:

- Eliminating more than **6.6 billion passenger-vehicle miles**
- Recycling nearly **1 million tons of garbage**.
- Burning **303 million gallons of gasoline**
- Consuming **6.2 million barrels of oil**,
- Burning **1.36 million metric tons of coal**.<sup>6</sup>

## EMISSION TYPES

### Scope 1 Emissions

Company-operated vehicle fleet and on-site natural gas consumption for Sunrun and our partners

### Scope 2 Emissions

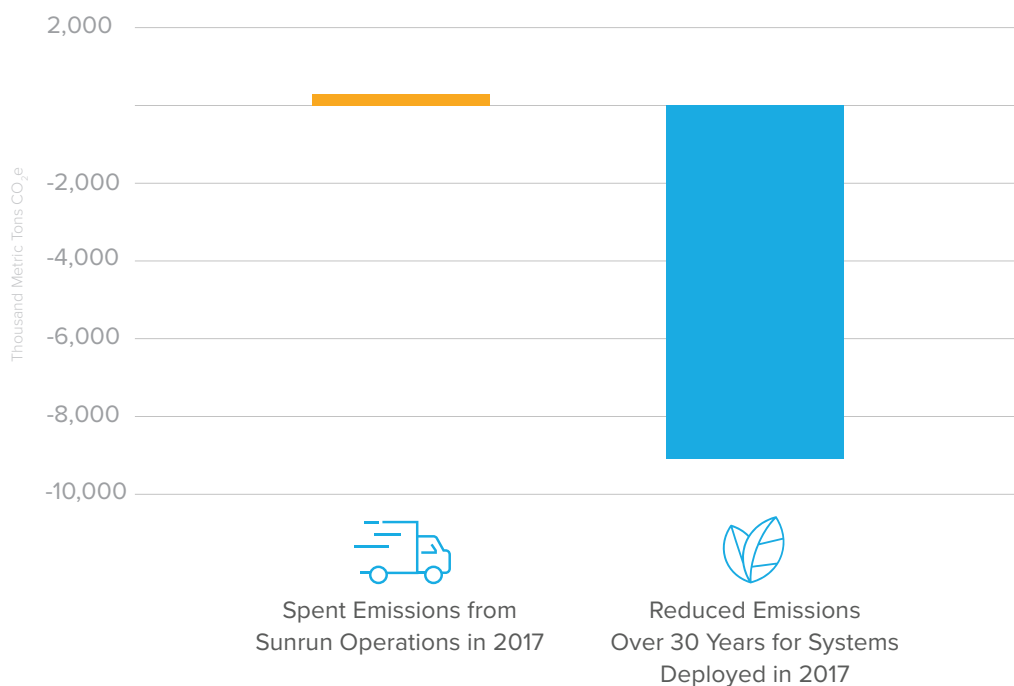
Purchased electricity for leased offices and warehouses for Sunrun and our partners

### Scope 3 Emissions

Solar module manufacturing, balance of system (BOS) components, and supply chain

In 2017, the estimated GHG emissions from our operations and the related operations of our partners and suppliers totaled 275,000 metric tons of CO<sub>2</sub>e. However, the systems we deployed in 2017 are expected to reduce GHG emissions by nearly 10 million metric tons of CO<sub>2</sub>e over their 30-year lifespan. Our total fleet of installed systems, which now exceeds 1,202 megawatts, is expected to reduce GHG emissions by more than 34 million metric tons of CO<sub>2</sub>e during its 30-year lifecycle.

### 2017 SYSTEM DEPLOYMENTS - NET CARBON BALANCE



### GHG AND CARBON MEASUREMENTS

GREENHOUSE-GAS AND CARBON CALCULATIONS	2016	2017
Direct Emissions (Scope 1) + Electricity Indirect Emissions (Scope 2) (Thousand MT CO <sub>2</sub> e)	37	49
Other Indirect Emissions (Scope 3) (Thousand MT CO <sub>2</sub> e)	198	227
Avoided Emissions Over 30 Years for Systems Deployed During the Year (Thousand MT CO <sub>2</sub> e)	(7,677)	(9,293)
Carbon Intensity per MW Deployed (Thousand MT CO <sub>2</sub> e per MW)	0.83	0.85
Fleet of Systems over 30 Years (Thousand MTs of CO <sub>2</sub> e Emissions Avoided)		34,500



# JOB CREATION



Sunrun employs more than 3,200 people in the United States, and our partners and suppliers employ thousands more. We are proud to lead one of the fastest-growing sectors in the American economy, creating accessible jobs that make a positive impact on thousands of communities.

## SOLAR IS AN ECONOMIC ENGINE

As of 2017, more than 250,000 Americans work in the solar industry, a 168% increase since 2010.<sup>7</sup> More than half of all solar workers are installers. According to data from the U.S. Department of Labor's Bureau of Labor Statistics (BLS), the solar installer will be the fastest growing job in America over the next decade.<sup>8</sup>

In the past five years, solar employment grew nine times more than the U.S. economy as a whole, and one out of every 100 new jobs was in the solar industry. There are now more than 9,000 solar companies, which collectively employ Americans in every state.<sup>9</sup>

Domestic solar companies provide the kind of jobs that the United States needs most: well-paying jobs that can't be exported or automated. Solar-industry wages remain competitive with similar industries and above the national average. Since the majority of solar jobs don't require a bachelor's degree,<sup>10</sup> they represent a viable long-term career opportunity for the millions of Americans who haven't finished college.

Solar is also a valuable and growing field for military service members and veterans, an often-overlooked segment of the professional workforce. Veterans make up 9% of solar workers, while they only comprise 7% of the U.S. workforce as a whole.<sup>11</sup> Jeff Sinclair, a former U.S. Army combat veteran and current senior training manager for Sunrun, said, "So many of our nation's veterans are succeeding in solar because the industry values the traits servicemen and servicewomen learn in the military—teamwork, leadership, and dedication."



**So many of our nation's veterans are succeeding in solar because the industry values the traits servicemen and servicewomen learn in the military—teamwork, leadership, and dedication."**

**-JEFF SINCLAIR, U.S. ARMY**

Finally, the solar industry strengthens local economies. About 25% of the costs of home-solar projects (for customer acquisition, installation labor, interconnection, and permitting) are spent locally. By comparison, large commercial projects only spend about 6% of their costs on a local level.<sup>12</sup>

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## POLICY

Policy plays an important role in helping grow and protect the rights of people who benefit from solar. Federal, state, and local governments promote solar energy in the form of rebates, tax credits, and other financial incentives, such as system performance payments, payments for renewable-energy credits, and exclusions of solar-energy systems from property-tax assessments. These incentives enable Sunrun to lower its prices, thereby helping catalyze Americans' adoption of solar energy.

The federal government offers a Residential Investment Tax Credit (ITC) for the installation of certain solar-power equipment owned by residential taxpayers.

Thirty-eight states and the District of Columbia have rules protecting the ability of solar consumers to sell excess solar electricity production back to the energy system for use by other energy consumers, a practice known as net metering.

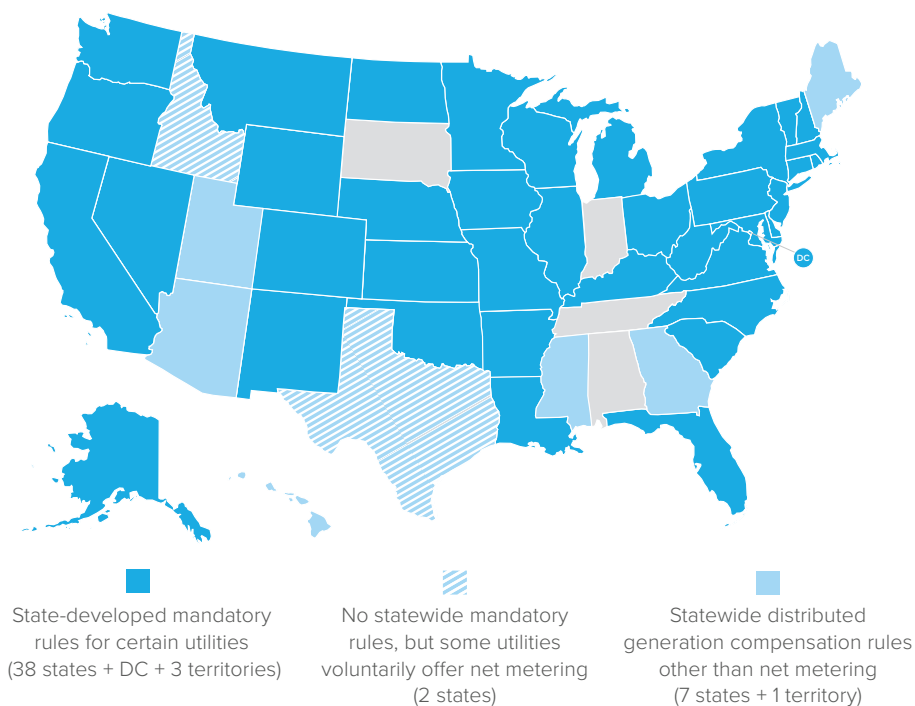
### FEDERAL INVESTMENT TAX CREDIT SUBSIDY

The ITC gradually steps down over the next 5 years from 30% to 10%, however systems are able to receive the credit in effect during the year construction started.

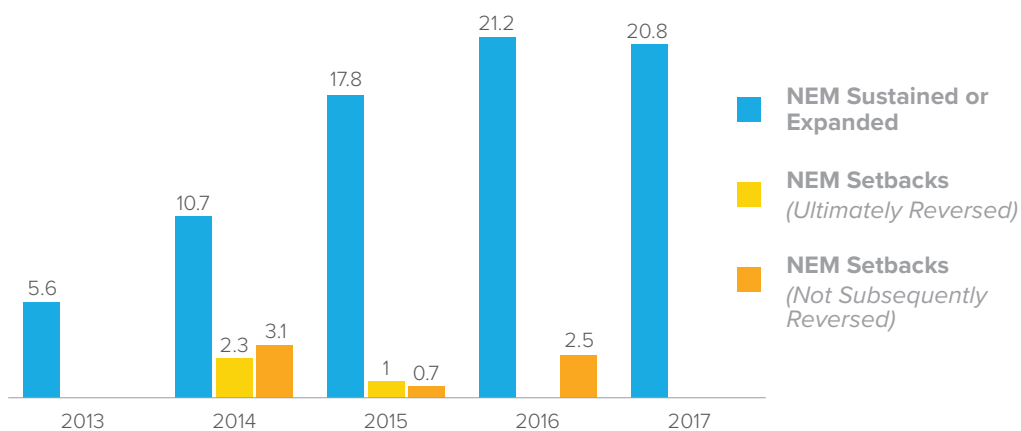
2017	2018	2019	2020	2021	2022+
30%	30%	30%	26%	22%	10%*

*\*Leased systems only; homeowner purchased system credit sunsets to 0% in 2022*

### 38 STATES AND DC, ALONG WITH TERRITORIES AS, PR, VI AND GU HAVE MANDATORY NET METERING RULES



### NET METERING IS A DURABLE POLICY



Households in State with NEM Policy Action (Millions of Households)

Source: EQ Research, analysis of Net Metering Policy decisions or regulatory actions from 2013-1H2017



## LEADING THE CHARGE

Sunrun advocates regulation and policies that advance access to solar and the solar industry. These efforts have been integral to some of the most impactful public-affairs campaigns that are accelerating America's transition to a clean-energy economy and consumer choice.

The team carries out short-term and long-term strategies to manage regulatory risks and opportunities. Sunrun makes direct and indirect contributions supporting and opposing candidates for public office and specific ballot measures and engages in direct and grassroots lobbying.

Sunrun makes contributions through the company's political-action committee. In 2017, the PAC contributed to the campaigns of members of Congress from both major parties who demonstrated a commitment to supporting solar-energy deployment. Additionally, Sunrun employees hold various elected committee positions within the Solar Energy Industries Association (SEIA) and collaborate regularly with other industry and advocacy groups such as Vote Solar and the Energy Storage Association.

Sunrun actively lobbies the legislatures in all the jurisdictions where Sunrun operates, as well as potential future markets such as Maine, Michigan, North Carolina, and Delaware. The team also engages in lobbying at the federal level. In 2017, the Alliance for Solar Choice (TASC) organized close to 4,000 advocates across the country to contact their legislators more than 28,760 times. Approximately 500 Sunrun employees engaged in policy actions through press conferences, rallies, letter-writing drives, phone calls, and meetings with elected officials.

## FAIR SOLAR AND STORAGE COMPENSATION

Sunrun engages in the development of public policies concerning the monetization of solar-energy generation and storage, including issues such as net metering, time-of-use rates, feed-in tariffs, fixed fees charged by utilities, and priority dispatch for renewable energy.

At the state level, our accomplishments and ongoing efforts include the following:

- Sunrun continues to engage in New York's Reforming the Energy Vision (REV) process and has secured net metering for residential rooftop-solar customers during Phase 1 of the process, which is expected to last through 2019. The team also helped to pass storage-target legislation for New York.
- In Hawaii, Sunrun helped expand and maintain the customer-grid supply tariff. The team also helped create the new smart-export tariff, which enables the passive management of distributed-energy resources and allows solar customers to export extra electricity at a higher rate from 4:00 p.m. to 9:00 a.m. In addition, the team successfully held off the mandatory imposition of volt-watt, which could have caused a disproportionate reduction of power generated by some customers.
- In Massachusetts, the team helped initiate an additional incentive for energy storage.

- In Texas, Missouri, and Utah, Sunrun helped defeat requirements for demand charges on residential rooftop solar. This achievement was critical to preventing a bad precedent for other states.
- In Florida, voters passed legislation known as Senate Bill 90, which included a property-tax exemption on home-solar systems. Nearly every successful solar market in the country has implemented a similar tax policy.
- In California, Sunrun helped promote the passage of legislation to extend the statewide permitting-fee cap and lower the cap from \$500 to \$450, with an exception to incentivize jurisdictions to streamline processes. The team also helped oppose onerous consumer-protection legislation and helped revise the language to focus on required disclosures to new customers.

## FINANCING AND TAX STRUCTURE OF SOLAR ENERGY

Another important policy issue is the financing and tax structure of solar energy. Related policies include the federal ITC, property-assessed clean energy, and depreciation schedules. Throughout 2015, Sunrun worked with others in the industry to push for an extension of the solar ITC, leading to a significant deal to extend the ITC for five years and gradually decrease the credit over that period. Sunrun also worked to ensure that the ITC phase-down agreement remained intact in the federal tax-reform legislation of 2017.

Sunrun also supported the passage in June 2017 of Florida's property-tax waiver and helped moderate draconian stipulations targeting solar consumers. These efforts paved the way for Sunrun to enter the state later that month.

## OTHER POLICY ISSUES



### ELECTRICITY TRANSMISSION

These issues include regional transmission planning, interconnected transmission networks, interconnection standards, and high-capacity transmission networks.



### DISTRIBUTION SYSTEM INTERCONNECTION

In 2017, the team advanced storage interconnection rules in Rhode Island, New York, Massachusetts, and Maryland.



### WHOLESALE-MARKET PARTICIPATION

Sunrun is an industry leader in participating in proceedings at the Federal Energy Regulatory Commission (FERC) in an effort to advocate for wholesale participation of distributed-energy resources.



### REPLACEMENTS TO AGING INFRASTRUCTURE

In California, Sunrun supported an effort to double the 2017 budget for the Self-Generation Incentive Program (SGIP) and direct additional funding to home energy-storage projects. The team also facilitated Sunrun's humanitarian effort to provide fire stations in Puerto Rico with Sunrun solar and battery systems following Hurricane Maria, demonstrating how our products can provide immediate relief during emergencies and leapfrog outdated grid technologies.



## SPOTLIGHT

## NEVADA



Nevada's experience illustrates the benefits of net metering for households and the overall energy system, as well as the downside of eliminating net metering. Through 2015, the state's net metering policy had enabled households to take advantage of home-solar options and transformed Las Vegas into one of Sunrun's largest installation branches.

Then in 2016 the Nevada Public Utilities Commission (NPUC) abruptly decided to terminate the net-metering policy. The NPUC justified its decision by referring to a flawed study of data provided by NV Energy. The study highlighted an apparent shift of costs from solar households to others while disregarding the vast majority of benefits that home solar provides to consumers and the entire energy system.

The ruling forced half a dozen solar companies to leave Nevada. Sunrun's Las Vegas branch manager, Larry Cohen, said, "My colleagues excelled so well at what they did, they made the utility scared of us." He said that January 6, 2016, the day that Sunrun ceased its operations in Nevada, was the worst day of his life: "We had taken a whole generation of kids and given them a career. To lay off coworkers who'd become friends and family made it a day I'll never forget. It was heartbreaking."

Intense consumer demand and the loss of thousands of solar jobs compelled Nevada's legislators to restore net metering with a law that passed in a near-unanimous vote in June 2017. The law featured provisions known as the Renewable Energy Bill of Rights, which protect consumers' choice to generate and store energy using home solar and battery systems.

Following the law's passage, Sunrun quickly re-entered Nevada, giving Larry Cohen the opportunity to rehire many former workers. "People jumped at the opportunity to come back to work in solar," he said.

The lesson from Nevada is clear: consumers are demanding the freedom to choose and access clean energy.

“

People jumped at the opportunity to come back to work in solar.”

-LARRY COHEN,  
BRANCH MANAGER



## CUSTOMER STORIES

Our customers are integral to our success as an impactful company and a community leader. Here are some of their experiences in their own words.

### Ed Cruz



Ed Cruz, a California doctor, saw the choice to install solar panels with backup battery service as a “no brainer.”

“I was thinking of going solar ever since I moved to California,” he explained. “As prices kept dropping, it became more alluring to me.”

Because California has a time-of-use rate structure, Ed’s energy costs were extremely high at times when he needed power the most. “It was unbearable to see that bill go up and up,” he said. “We tried to be more energy efficient, but nothing seemed to make much of a dent in our energy consumption.”

When Ed’s brother-in-law and friend told him about Sunrun’s Brightbox, he knew it was just what he was looking for. Brightbox, a solar-battery service for the home, offers extra security during outages, cleaner power, and substantial savings.

The financial freedom of Brightbox eased the most significant burden for Ed. Over 20 years, he can expect to save \$50,000 on electricity. And the security of backup power was more important than he had anticipated.

“To me, it seems like a no brainer, especially living in an area where we often see natural disasters. To have that freedom to know that we have power if the grid goes out is very appealing,” he said. Ed likes to be prepared, and he says, “This is just an extension of disaster preparedness.”

One aspect of Brightbox that has become more important to Ed as time has gone on is sustainability. “Part of it was that we are trying to live cleaner and make less of an impact on the planet,” he said. The experience of installing solar panels and Brightbox has encouraged Ed to be even more environmentally conscious. He and his wife have chosen to get an electric car, and Ed said the Brightbox system “made that decision a lot easier.”



## Daniel McIntyre



Daniel McIntyre, an accountant who lives south of Boston in Mattapan, is proud that his friends accuse him of “bragging” about his solar panels. “I’ve already recommended Sunrun to a number of guys I work with, and a friend of mine is meeting with Fred, the Sunrun sales associate.”

Daniel decided to get home solar for one simple reason: he wanted more independence from the utility company. Now the experience has made him proudly identify as an “environmentalist,” and has sparked his interest in other clean-energy options, like battery storage.

“The idea of the process is the scariest part,” said Daniel. He explained that once he started doing research on solar, he was inundated with phone calls from companies trying to win his business. However, his experience with Sunrun was different. Daniel said, “I met Fred a while ago. I made him work very hard. I told him I wanted more efficiency than what was proposed by other companies, and he ultimately made it work for me.”

## Adam Anderson



Adam became interested in solar power during a 2015 humanitarian trip to Haiti. As a disaster relief specialist with a medical not-for-profit, Adam spent most his trip at a local hospital. After the 2010 earthquake disabled the country’s power grid, many residents and businesses were forced to rely on expensive, dirty, unreliable diesel-fuel generators and endure frequent blackouts and intermittent power. But since the local hospital that Adam visited was powered by solar, staff and patients there knew the electricity wouldn’t go out and could count on reliable medical care and facilities.

When Adam returned to California, he decided to bring home what he’d learned about solar power. In April 2017, Adam went solar with Sunrun. “It was a super easy process,” he said. “I’m a very detailed-oriented guy. I did my research and decided Sunrun was the best provider because of the production guarantee and hassle-free 20-year service agreement. Once I made the decision, it was incredibly efficient, so much so that I’m trying to figure out how this customer model can apply to my company.”

Adam powers both his home and his electric car with Sunrun’s solar panels. He drives 100 miles a day to and from his work in Santa Barbara, and he feels good knowing he is both saving money and limiting his environmental impact. “I’m not polluting or buying gas, and my electricity bills went from \$200 per month to \$1,” said Adam.

In addition to the financial savings and clean lifestyle, residential solar has the potential to be a literal lifesaver for Adam and his family. They live in Ojai, a mountain community about 50 miles south of Santa Barbara. For several months in 2017, the area experienced unprecedented wildfires and mudslides, which cut off power and left people stranded during emergency situations.

“I live in one of the wealthiest regions in America, and our power supply is incredibly vulnerable, delivered through just one line. Energy storage is the last missing link, in my mind,” said Adam. “A solar-powered home battery would give me the peace of mind that, when disaster strikes, I have backup power for my family.”



## ENVIRONMENT

At Sunrun, we hold ourselves accountable for minimizing GHG emissions and sharing in the responsibility to address the challenges presented by climate change and environmental pollution. That is why we decided in 2017 to conduct a comprehensive estimate of our carbon footprint and assess the broader environmental impacts of our business. Where are we making a significant impact in carbon emissions reductions? In what areas are we able to improve?

### MEASURING OUR GREENHOUSE-GAS EMISSIONS

In 2017, Sunrun deployed more than 323 megawatts of solar to more than 44,000 customers. These installations could generate approximately 12 billion kilowatt-hours of clean energy during the next 30 years—enough to prevent the emission of nearly 10 million metric tons of CO<sub>2</sub>e.

In 2017, Sunrun deployed more than 323 megawatts of solar to more than 44,000 customers. These installations could generate approximately 12 billion kilowatt-hours of clean energy during the next 30 years—enough to prevent the emission of nearly 10 million metric tons of CO<sub>2</sub>e, based on estimates from the U.S. Environmental Protection Agency. Generating electricity close to the households where it is used also prevents GHG emissions and other adverse environmental impacts resulting from the production of electricity that is lost during long-distance transmission and distribution.

To prepare Sunrun's first GHG emissions inventory and environmental impact study, we followed widely adopted GHG accounting protocols and impact-measurement frameworks. The calculations reported herein estimate the GHG emissions attributable to Sunrun's company-owned and -operated vehicle fleet, leased offices and warehouses, modules and balance-of-system (BOS) components, equipment-lifecycle considerations, and the activities that our partners and suppliers perform in support of our operations. (Please refer to the Appendix for more details on our calculations and the assumptions behind them.)



## EMISSION TYPES

### Scope 1 Emissions

Company-operated vehicle fleet and on-site natural gas consumption for Sunrun and our partners

### Scope 2 Emissions

Purchased electricity for leased offices and warehouses for Sunrun and our partners

### Scope 3 Emissions

Solar module manufacturing, balance of system (BOS) components, and supply chain

Vehicle-fleet emissions were estimated based on data collected and verified through our fleet-management service, with emissions calculated according to vehicle types, fuel types, and miles driven within the reporting period. Emissions from our leased offices and warehouses were estimated by applying the average energy-usage values reported in the U.S. Energy Information Administration's 2012 Commercial Buildings Energy Consumption Survey to Sunrun's occupied office and warehouse square footage.

To account for emissions associated with the activities of our channel partners, we applied emissions factors derived from Sunrun-operated deployments across various eGRID regions over the reporting period to partner operations. Calculations of emissions produced as a consequence of manufacturing photovoltaic modules for Sunrun's installations draw on industry-published figures that correspond to the average wattage of modules that Sunrun deployed over the reporting period. These cover emissions from raw-material extraction; wafer, cell, and module production; the supply chain of semiconductors; and the supply chain of carrier and connection materials such as glass and silver. An additional emissions factor of 20% was then applied to account for emissions produced as a consequence of manufacturing BOS components, such as inverters, racking systems, wiring, and other interconnection equipment, for Sunrun's installations.

### 2016 EMISSIONS

TYPE OF EMISSIONS	EMISSIONS (THOUSANDS OF METRIC TONS OF CO <sub>2</sub> e)
Direct Emissions (Scope 1) + Purchased Electricity (Scope 2)	37
Other Indirect Emissions (Scope 3)	198
<b>Total Emissions from Operations</b>	<b>235</b>

### 2017 EMISSIONS

TYPE OF EMISSIONS	EMISSIONS (THOUSANDS OF METRIC TONS OF CO <sub>2</sub> e)
Direct Emissions (Scope 1) + Purchased Electricity (Scope 2)	49
Other Indirect Emissions (Scope 3)	227
<b>Total Emissions from Operations</b>	<b>275</b>



POSITIVE CARBON RETURNS



Sunrun’s cumulative deployed systems of **1,202 MEGAWATTS** are estimated to offset more than **34 MILLION METRIC TONS OF CO<sub>2</sub>e EMISSIONS** during their 30-year lifetimes



For each metric ton of CO<sub>2</sub>e emitted by Sunrun in 2017, the clean solar systems that Sunrun deployed in 2017 are expected to avoid more than **30 METRIC TONS OF CO<sub>2</sub>e EMISSIONS** during their 30-year lifetimes



For each metric ton of CO<sub>2</sub>e emitted by Sunrun in 2017, our entire fleet of solar-energy systems has already prevented more than **3 METRIC TONS OF CO<sub>2</sub>e FROM ENTERING THE ATMOSPHERE**

Most companies produce more emissions than they negate, while Sunrun negates significantly more emissions than we produce.

During the course of their lifetimes, the solar-energy systems deployed by Sunrun in 2017 are projected to generate approximately 12 billion kilowatt-hours of clean solar energy, preventing nearly 10 million metric tons of CO<sub>2</sub>e from entering the atmosphere. This quantity is 30 times greater than the the quantity of CO<sub>2</sub>e emitted by the manufacturing and deployment of these systems. Most companies produce more emissions than they negate, while Sunrun negates significantly more emissions than we produce.

LENGTH OF TIME FOR POSITIVE CARBON RETURNS TO BE REALIZED

Once Sunrun’s solar systems begin to operate, the positive carbon returns accrue rapidly. This is an important metric to emphasize, because it is sometimes said that manufacturing and installing solar modules and BOS components requires the use of fossil fuels and thereby generates more GHG emissions than the installed solar-energy systems prevent. In our analysis, we found that positive carbon returns are not only realized, but also realized in an extremely short period of time.

EMISSIONS CONSIDERED	CARBON PAYBACK PERIOD (YEARS)	POSITIVE CARBON RETURN (YEARS)
Emission from Operations + Supply Chain + End of Use	0.9	29.10

In just 10 months of operating, a Sunrun solar-energy system has prevented the same amount of GHGs that were emitted to build and install the system. Sunrun’s systems are expected to produce clean energy for 30 years. This means that for 97% of the lifetime of our systems, they prevent the release of harmful GHGs into the atmosphere.



COMPARISON TO FOSSIL-FUEL ELECTRICITY GENERATION

A major benefit of solar-electricity generation is that it produces less GHG emissions per kilowatt-hour of energy compared to electricity generation using fossil fuels such as oil, coal, and natural gas. When comparing the environmental impacts of various energy sources, it is important to consider the entire lifecycle of any given technology. In these calculations and those described above, we have made an effort to include all environmental impacts from our operations, upstream supply-chain impacts, and the end use of our solar-energy systems.

Impact studies conducted by the National Renewable Energy Laboratory (NREL) conclude that “cradle to grave” lifecycle GHG emissions from renewable electricity sources, including photovoltaics, are much lower and generally more consistent than the lifecycle emissions from fossil-fuel electricity.<sup>113,14</sup> Electricity generated by burning coal or natural gas, for example, releases significantly more GHGs per kilowatt-hour than solar electricity.

GENERATION SOURCE	CO <sub>2</sub> EMISSIONS (g / kWh)
Sunrun System	22
Coal	979
Natural Gas	470

For 97% of the lifetime of our systems, they prevent the release of harmful GHGs into the atmosphere.

PRESERVING AIR AND WATER

By enabling consumers to lessen their consumption of electricity generated using fossil fuels, Sunrun’s solar-energy systems prevent many other adverse environmental impacts. These impacts include emissions of noxious air pollutants and consumption of increasingly scarce fresh water reserves required for traditional electricity generation.

The harmful health impacts and environmental pollution from fossil-fuel power plants are well documented. The environmental impact of coal and natural-gas plants has been linked to serious health problems including difficulty breathing, neurological damage, and cancer.<sup>15</sup> Many of these health problems can be traced to nitrous oxide and sulfur oxide compounds released during the combustion of fossil fuels.<sup>16,17</sup>

While everyone experiences the effects of pollution, low-income families and communities of color in the United States often suffer a disproportionately large share of adverse effects.<sup>18</sup> According to the National Association for the Advancement of Colored People, approximately 68% of African Americans live within 30 miles of a coal-fired power plant,<sup>19</sup> and a report by Clean Air Task Force found that close to 2 million Latinos live within half a mile of existing energy infrastructure.<sup>20</sup> As a result of their proximity to pollution, these communities face elevated health risks: an African American<sup>21</sup> or Hispanic child<sup>22</sup> is twice as likely to die from an asthma attack as a non-Hispanic white child.

The public-health effects of coal alone are estimated at \$74.6 billion per year.<sup>23</sup> Solar energy offers a simple and abundant means of reducing the quantity of nitrous oxides, sulfur oxides, and ozone emitted by the combustion of fossil fuels. The electricity produced by Sunrun systems deployed in 2017 effects a meaningful reduction of these harmful compounds by lowering households' consumption of fossil-fuel electricity.

## AIR AND WATER IMPACTS

	2016	2017	CUMULATIVE
<b>Nitrogen Oxide</b> <i>(Avoided Metric Tons)</i>	569,000	793,000	<b>1,362,000</b>
<b>Ozone</b> <i>(Avoided Metric Tons)</i>	620	860	<b>1,480</b>
<b>Sulfur Dioxide</b> <i>(Avoided Metric Tons)</i>	1,390	1,940	<b>3,330</b>
<b>Water Consumption</b> <i>(Avoided Millions of Gallons)</i>	17	24	<b>41</b>

Fossil-fuel electricity generation threatens increasingly scarce freshwater supplies. Production of electrical power is one of the largest uses of water in the United States, with 161 billion gallons of water used per day in 2011,<sup>24</sup> and accounting for 49% of all water withdrawals in 2005.<sup>25</sup> Renewable-energy technologies like solar play a key role in reducing the strain on water resources.

Consider that the national weighted average of water use by thermoelectric and hydroelectric plants is two gallons of evaporated water per kilowatt-hour of electricity consumed at the point of end use.<sup>26</sup> Solar-energy systems deployed by Sunrun in 2017 will generate approximately 12 billion kilowatt-hours of electricity during their lifetime, thereby preventing the consumption of 24 billion gallons of water that would otherwise be used to generate fossil-fuel electricity.

## REDUCING OUR ENVIRONMENTAL FOOTPRINT

### FACILITIES

Sunrun is committed to building a framework of sustainable policies and practices for our company's built environment to promote conservation of natural resources, reduction of GHG emissions, and improved employee comfort and well-being. With 47 office locations across 18 states, we have concentrated on diverting recyclables from our waste stream and standardizing design specifications for our offices.

More than 70% of our locations have traditional recycling as well as pallet and e-waste recycling. Additionally, Sunrun is developing nationwide design specifications including coatings that are low in volatile organic compounds (VOCs) and carpeting and hard-surface flooring made with post-consumer recycled content. More than 80% of our locations have implemented the low-VOC paint standard and more than 60% now have carpet that is considered carbon neutral through lifecycle assessments (LCAs).

Sunrun also uses benchmarking systems to foster transparency and efficiency. By transitioning the entire Sunrun real-estate portfolio to the EnergyStar Portfolio Manager, we intend to set targets for energy reduction. Auditing energy use, waste generation, and water consumption will allow Sunrun to identify opportunities for reducing environmental impacts and achieving cost savings.

Our goal for 2018 is to set uniform departmental standards. Benchmarking and securing national contracts for building services will improve service quality as well as the reliability of building systems. Establishing national contracts for solid-waste and electronic-waste management, integrated pest management (IPM), green cleaning, and HVAC preventive maintenance, will create a uniform building environment and scope of services while reducing costs.

To properly manage resources, we will develop a thorough understanding of current resource usage. Throughout 2018, systems will be audited to inform the development of detailed targets and reporting dashboards for resource use and GHG emissions reduction. The facilities department will work with other departments to set and attain these targets.



## VEHICLE FLEET

Sunrun's fleet of more than 1,000 vehicles enables the installation of solar systems at households across the country. The average fuel economy of our fleet vehicles exceeds 20 miles per gallon, and more than a quarter of our fleet vehicles average over 30 miles per gallon. This year, Sunrun introduced a new driver's policy to promote slower, safer, and more efficient driving. This policy is designed to increase the average fuel economy of our fleet vehicles and thereby reduce GHG emissions. In addition, Sunrun plans to purchase newer fleet vehicles this year and retire the oldest ones.

As Sunrun enters new markets across the United States, local managers are gaining experience with their market geographies and have begun providing fleet drivers with incentives to optimize their routes and driving patterns.





## HEALTH AND SAFETY

The safety of Sunrunners, our customers, and local communities is Sunrun's first priority. Our comprehensive health and safety program goes beyond the requirements of all state and federal regulations. For example, the company augmented its core Injury and Illness Prevention Program with the specialized safety programs listed below.

### SUNRUN'S SAFETY PROGRAMS

- Code of Safe Work Practices
- Electrical Safety Program
- Ergonomics and Stretch and Flex Program
- Emergency Action Plan
- Fall Protection Program
- First Aid/CPR/AED Training Program
- Fire Prevention and Protection Program
- Hazard Communication Program
- Heat Illness Prevention Program
- Jobsite Safety Inspection Forms
- Ladder Safety Program
- Material Handling Safety Program
- Office and Warehouse Inspection Forms
- OSHA 10-Hour and 30-Hour Card Program
- Personal Protective Equipment Policy
- Site Specific Safety Program
- Toolbox Talk Program
- Vehicle Safety and Usage Program

## CREATING A CULTURE OF SAFETY

As part of Sunrun's commitment to safety, we launched ongoing campaigns to create a culture where employees feel a sense of ownership in the safety and wellbeing of their teammates. Our Why We Work Safely campaign urges employees to adhere to safe working practices whether they are on a rooftop, on the road, or in the office. This program also encourages employees to share photos of themselves, their family, and their friends doing the activities they love in their free time.

Our Caught Working Safely campaign empowers employees to report any near-miss incidents to their supervisors so that appropriate measures can be taken. Sunrun also maintains an anonymous hotline for employees to report safety incidents or concerns.



## COMPREHENSIVE SAFETY TRAINING AND CERTIFICATION

Sunrun's learning-management system offers safety-training courses for all OSHA-required safety topics and other topics specific to Sunrun. All of these courses are customized for the solar industry and reflect best practices for construction safety.

Newly hired solar installers, electricians, and site assessors must complete two full days of safety and quality training before they can participate in an installation. Once they are awarded Sunrun's Construction Safety Certificate and Commercial Vehicle Safety Certificate, they receive state-of-the-art personal protective equipment appropriate for their job function. In addition to new-hire training, Sunrun provides weekly toolbox talks, ongoing certifications, and regular safety bulletins. Installers receive an average of 40 hours of documented training in the first year of employment.

External certification programs further support Sunrun's commitment to best-in-class safety. All energized electrical work is performed by licensed journeyman or master electricians, depending on the state. Sunrun's senior manager of safety is a Certified Safety Professional (CSP) credentialed through the Board of Certified Safety Professionals (BCSP). Leaders in Sunrun's quality department hold PV Installation certifications from the North American Board of Certified Energy Practitioners (NABCEP) and OSHA 30 cards. All construction supervisors and foremen maintain CPR certification.

## VERIFICATION AND COMPLIANCE

Sunrun ensures compliance with safe practices through vehicle monitoring, safety inspections, and auditing of quality-assurance (QA) photographs. The telematics devices in each of our fleet vehicles constantly transmit data on speed, driving behavior, and location to a central database. Supervisors use the data to monitor employees' driving habits so they can instruct them in safe driving techniques. In addition, Sunrun takes photographs to document installation practices on 100% of its job sites and audits those photos to ensure that our work is performed to high standards. Sunrun's safety and quality departments also conduct random job-site and facility audits to verify compliance and comprehension of training.

## NEW SAFETY INITIATIVES

Sunrun will develop several new health, safety, and wellness projects in 2018. Installers will begin using portable mechanical hoists to lift Brightbox batteries during installation. Additionally, since much of Sunrun's solar system work is performed on rooftops and in attics where temperatures are high, we are investing in personal cooling systems like those used by professional athletes and the military to reduce worker fatigue.

## SAFETY RECORD

Sunrun's industry-leading safety record is a testament to our focus on injury prevention and recovery management. Historical safety-incident rates and experience modification rates (EMR) are presented below. Improvements in total recordable incident rate (TRIR) and lost-time incident rate (LTIR) from 2016 to 2017 are attributable to our Stretch and Flex program. This program teaches construction employees to prepare their bodies as though they were athletes about to train or compete.

## SAFETY METRICS

YEAR	2014	2015	2016	2017
Hours Worked	2,800,000	4,700,000	7,000,000	6,300,000
Miles Driven	10,000,000	17,600,000	18,000,000	16,000,000
EMR (WCIRB)	1.19	0.71	0.67	1.02
EMR (NCCI)	0.67	0.61	0.87	0.63
TRIR	2.02	4.07	4.74	3.92
LTIR	0.22	1.20	1.54	0.76
DART Rate	1.30	3.13	3.94	2.96



# EMPLOYEE DEVELOPMENT

Sunrun is dedicated to providing all our employees with opportunities and tools for skill development. Managers conduct professional-development “check-ins” with their employees three times per year. These discussions focus on constructive feedback, skill building, and development planning. They are purposefully separated from annual compensation discussions to allow for open dialogue regarding growth areas and career interests. Typically 80-90% of our employees will complete check-ins with their managers during each period.



## CAREER TRAINING

Beginning with new-hire orientation and covering all levels up to advanced leadership training for senior managers, Sunrun offers cross-functional training to all employees. Our training options include a robust library of online curricula, such as electronic learning modules from third parties and more than 200 custom, Sunrun-developed eMods. These eMods range from two-minute how-to videos to complex, multi-hour training programs. In 2017, employees spent over 7,500 hours completing online learning courses, and Sunrun delivered 550 days of instructor-led webinar training.

Sunrun has created and owns more than 1,000 learning assets, which are available to employees at all times to help them perform their jobs safely and successfully. The company also offers licenses to Lynda.com, an on-demand learning solution designed to provide our employees with the tools to take charge of their development, gain new skills, and advance their careers. Lynda.com has thousands of engaging courses created by industry experts and has enabled employees to hone their skills in a variety of areas. Sunrun’s 580 active users of Lynda.com spent more than 1,220 hours developing their skills on the platform in 2017.

Sunrun has developed and runs two comprehensive management-development programs. Leadership Fundamentals focuses on new managers. To date, more than 400 people managers at Sunrun have completed the program. Leadership Essentials for experienced and senior leaders is a multi-month program intended to create the best leaders in business. Comparably recognized Sunrun on its Best Company Managers list for 2017.

# DIVERSITY AND INCLUSION

According to the Solar Foundation's *2017 National Solar Jobs Census*, 27% of solar jobs are held by women, 7% by African Americans, and 9% by veterans. Sunrun is approximately on par with these metrics, and we are taking steps to increase the diversity of our workforce and establish our company as an industry leader in employee opportunity. The company has a dedicated diversity and inclusion program manager who oversees and reinforces opportunities for women, military veterans, and members of the LGBT community.

“

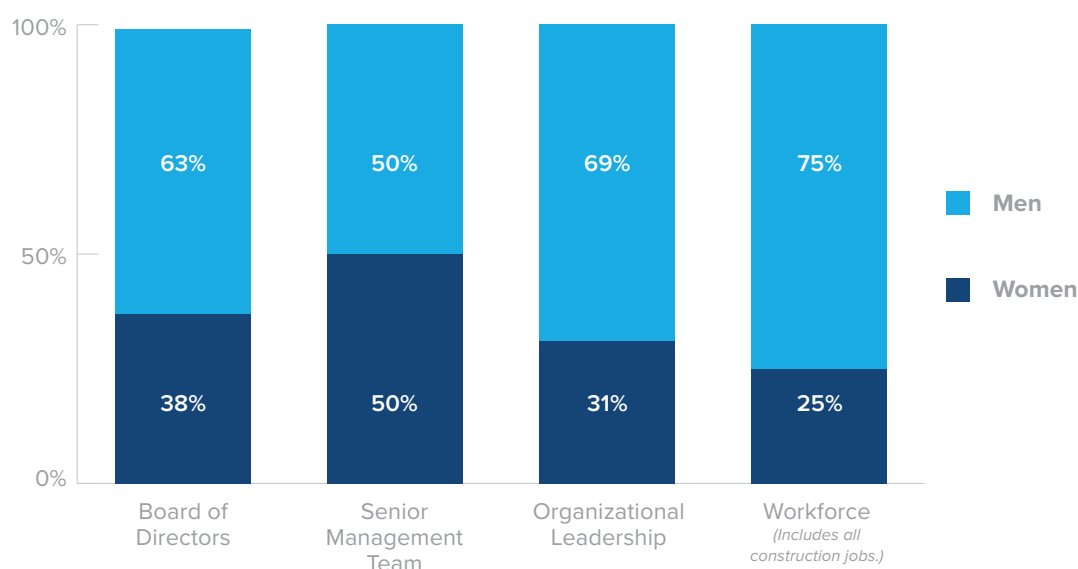
Diversity and inclusion are essential Sunrun priorities as we build a sustainable future for humanity. Our people's differences and human experiences fuel innovation and help us make better decisions.”

-CEO LYNN JURICH

## GENDER DIVERSITY

Women comprise 38% of Sunrun's board and 50% of our senior management team. Our organizational leadership includes approximately 31% women. Approximately 25% of all Sunrun employees are women.<sup>27</sup> Sunrun expects this overall percentage to increase as we strive to recruit workers on a gender-blind basis.

## GENDER DIVERSITY WITHIN SUNRUN

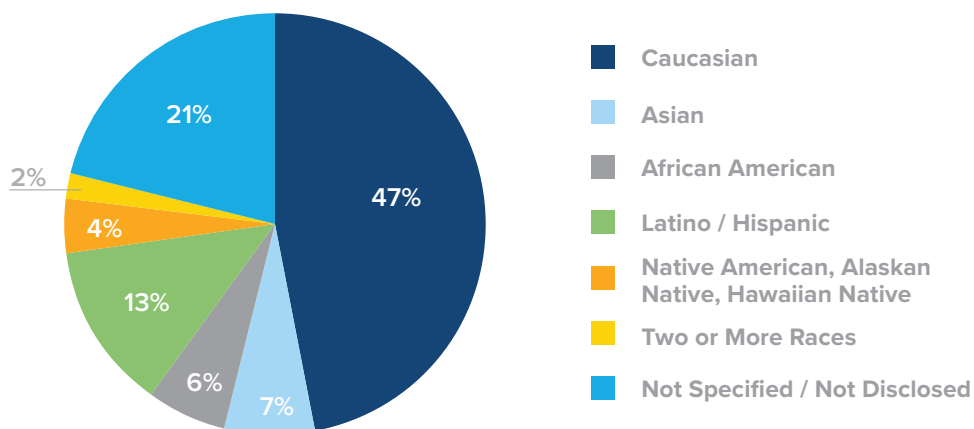


Sunrun is committed to providing equal and fair pay to all employees, as we seek to address the broad societal challenge of the gender-pay gap. Sunrun signed the White House Equal Pay Pledge in 2016. As part of that pledge, we conduct an annual company-wide gender-pay analysis to identify and address equal-pay issues.

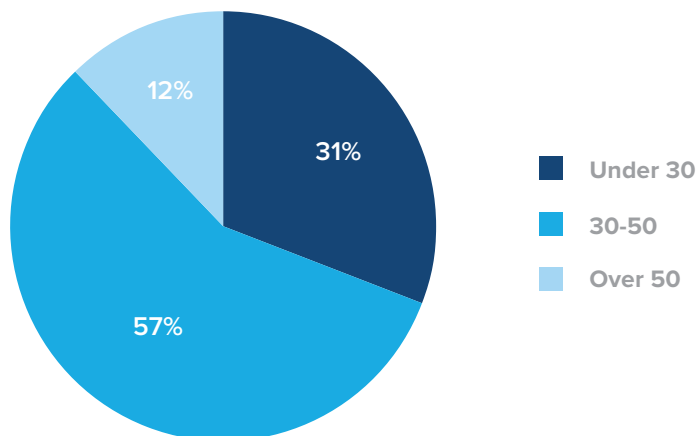
We also strive to identify, examine, and implement other best practices to promote fundamental fairness for all workers. For example, to address the gender-pay gap that can occur as men and women move from job to job, Sunrun voluntarily stopped asking applicants for their salary history at the beginning of 2016, more than 18 months before this practice became law in California and New York City. We adhere to this practice on a national basis.

Sunrun knows that pay equity is a fundamental issue of fairness for families, affecting men as much as it affects women. We offer both men and women 10 weeks of paid parental leave at 100% of their base salary and encourage all employees to use their leave. Employees continue to accrue seniority during parental leave.

## ETHNIC DIVERSITY WITHIN SUNRUN



## AGE DIVERSITY WITHIN SUNRUN



## SUNRUN WOMEN'S NETWORK

Women are paving the way for future generations at Sunrun. In an industry traditionally dominated by men, Sunrun is dedicated to empowering women and developing a gender-balanced workforce. In 2017, Sunrun was included on Comparably's annual list of Best Companies for Women.

The Sunrun Women's Network (SWN) facilitates the advancement of women by promoting diversity throughout the employee lifecycle. Beginning in the recruitment phase, SWN creates processes for developing and promoting women across the company. The initiative also helps promote networking within Sunrun, in our communities, and in the wider solar industry. It provides women with opportunities to attend events, hear guest speakers, and collaborate on projects. In addition, Sunrun hosts a group for women in technology jobs, which provides employees with mentoring, sponsorship opportunities, and training and development.



## WELLNESS

In addition to healthcare, vision, dental and 401(k) plans, Sunrun offers all full-time employees an array of comprehensive health and wellness benefits. We keep these benefits cost-effective for employees, regularly leading our industry peers in the quality and the cost of benefit plans. These benefits include:

- **Weight Watchers memberships**
- **Discounted health-club memberships**
- **Health webinars**
- **Smoking cessation programs**
- **Blood drives**
- **Stress-relief services**
- **On-site flu shots and wellness checks at our major population locations**
- **Tele-medicine services for fast assistance with general health needs**
- **A partnership with One Medical for concierge healthcare services in San Francisco with plans to expand the offering to other locations with a large population of our employees.**

## RECRUITMENT

Diversity and inclusion are a fundamental priorities for our recruitment function. Sourcing, identifying, and engaging a diverse candidate pool helps Sunrun secure a qualified and diverse workforce. Sunrun's diversity and inclusion program manager works with the talent acquisition function to ensure that equality and fairness are upheld in our recruitment strategies and hiring initiatives.

In an effort to increase the population of underrepresented groups in our workforce, Sunrun successfully piloted a diversity metric for candidate interviews for the sales organization. Our goal was to increase overall the applicant pool by 50% in order to boost diversity in sales hires. As a result of tracking the diversity of candidates, the company hired 62% more women for sales positions in the third quarter of 2017 than it did in the third quarter of 2016.

## MILITARY VETERANS AND SERVICE MEMBERS

The Solar Foundation reported that veterans made up 9% of solar workers in 2017, but only 7% of the overall U.S. workforce. Veterans and active service members have a skill set that is readily transferable to the solar industry. Their leadership, discipline, dedication, and technical abilities are invaluable for securing and sustaining clean energy. Sunrun views the veteran population as a vital but underused resource and has chosen to make veterans a major focus of the company's recruiting efforts.

At Sunrun, eligible active duty, guard, and reserve employees receive 10 paid days per year for military duty or leave. This allotment exceeds government and USERRA requirements. Additionally, Sunrun has established a Veteran Affairs Board, consisting of veterans at or above management level, to oversee veteran affairs in the areas of diversity and inclusion, recruitment, and public policy. In 2017, Jeff Sinclair, senior leadership development manager and Veteran Affairs Board member, spoke about solar tariffs and the importance of solar jobs during the SEIA Save Solar Jobs press conference in Washington, DC.

Sunrun's plans for the near future are to launch an employee-referral program for veterans, develop a military-transition webinar, and set up other workforce and apprenticeship programs for veterans. We also have plans to establish a national support group for veterans working at Sunrun and their families.



## STRATEGIC AND PHILANTHROPIC PARTNERSHIPS

Sunrun cannot fulfill its mission to deliver a clean-energy future by acting alone. We believe that strong partnerships help us make the largest possible impact, bring leading solutions to more customers, and accelerate the transition to a clean, resilient, and affordable energy system. By joining forces with electric utilities, grid-services companies, not-for-profit organizations, and community-investment groups, we are creating a ecosystem of innovation and opportunity.

**nationalgrid**

### PARTNERSHIP AT A GLANCE

- Strategic collaboration on grid-service opportunities, leveraging home-energy resources to provide increased value to the energy system
- \$100 million project-equity investment for solar-energy systems
- Joint marketing pilot in New York

### National Grid

*Global utility and energy company*

In 2017, Sunrun announced a strategic partnership with National Grid, a leading global utility company with operations in the United States and the United Kingdom. As part of the partnership, National Grid works with Sunrun to explore how home-energy resources might be aggregated and used to balance and optimize the energy grid across the United States. The partnership also includes a \$100 million project-equity investment for solar-energy systems and a joint marketing pilot in downstate New York.



### PARTNERSHIP AT A GLANCE

- Forty-month deal to offer solar to Comcast customers through Comcast's Xfinity Home Service
- Sunrun is Comcast's exclusive residential solar provider

## Comcast

*Broadcasting and telecommunications company*

In August 2017, Sunrun and Comcast signed a 40-month agreement that is designed to accelerate the adoption of solar energy by Comcast's vast customer base. Comcast will market services and generate leads for Sunrun. By offering residential solar, Comcast can create an even more dynamic way for customers to retain control over their power needs.

The agreement came on the heels of a successful one-year solar-pilot program in which participating Comcast customers chose Sunrun's solar service. The pilot program and the early stages of the partnership have highlighted the value to Comcast of offering customers Sunrun's solar-energy service.



### PARTNERSHIP AT A GLANCE

- Partnership renewed every year for six years
- Sunrun employees have volunteered over 4,200 hours through this partnership to date
- Together, we have installed more than 2,000 kilowatts on single-family, multi-family, and community solar projects

## GRID Alternatives

*Not-for-profit solar provider*

Sunrun has partnered with GRID Alternatives, a national leader in making solar power and jobs accessible to underserved communities, for more than six years. The partnership includes a philanthropic donation to support job training and solar-energy systems for low-income families, as well as employee volunteerism on projects across the United States.

Sunrun finances solar projects through a unique third-party-owner (TPO) model developed by GRID for its low-income clients. Sunrun serves as TPO through its solar leases and solar power-purchase agreements (PPAs). Under this arrangement, Sunrun owns, operates, maintains, and insures the systems, while GRID installs and funds each customer's prepaid 20-year solar PPA or lease bill. The TPO model allows Sunrun to leverage both the federal investment tax credit and depreciation benefits on these projects, while reducing costs for GRID and helping the organization serve more low-income households.

In addition, Sunrun employees have volunteered over 4,200 hours through this partnership to date, installing more than 2,000 kilowatts of single-family, multi-family, and community solar projects. These installations prevent more than 38,000 metric tons of CO<sub>2</sub>e, which is equivalent to the emissions prevented by planting nearly 900,000 trees.





empoweredbylight.org

### PARTNERSHIP AT A GLANCE

- Empowered by Light was Sunrun's partner on the ground in Puerto Rico after Hurricane Maria
- We worked together to install solar panels and batteries on fire stations
- These projects helped keep critical emergency centers powered up and ready to respond

## Empowered by Light

*Not-for-profit solar provider*

Two months after Hurricane Maria pummeled Puerto Rico, more than 60% of the island's residents were without power. Much of the island's critical infrastructure had to rely on diesel generators in the absence of grid electricity. But most of those generators weren't designed to run on a continuous basis, and many failed as a result.

Sunrun and Empowered by Light installed solar on fire stations in Puerto Rico as part of a continuing effort to provide emergency relief to residents. Aireko employees, many of whom had no electricity since Hurricane Maria, have been working alongside Sunrun on the installations.

In addition to providing immediate support to a portion of the island's critical infrastructure, Sunrun and Empowered by Light hope their efforts, now in partnership with Aireko, will encourage rebuilding efforts to include renewable-energy technologies. The plan to install solar systems on an additional five fire stations, after the initial three, was made possible in part by funding from the Kresge Foundation as well as donations from hundreds of individuals.

The most recently installed system, a 6.6-kilowatt solar and storage installation, was placed on the roof of the Metro fire station in the neighborhood of Puerta de Tierra. This system will power the station's communications and call center, enabling the firefighters to respond effectively to emergency calls.

## SPOTLIGHT

## PUERTO RICO



Our mission for the last decade has been to provide affordable, clean, and resilient energy to all Americans. After Hurricane Maria reduced Puerto Rico's power grid to rubble, Sunrun heard stories about emergency-relief crews who couldn't respond to our fellow U.S. citizens because they couldn't recharge their radios.

We were also confronted with images of our fellow citizens having to drink contaminated water because municipal water systems lacked electricity to power their pumps. Those stories and images made it clear that we could do something to help.

Almost immediately, Sunrun joined forces with firefighters and not-for-profit organizations like Empowered by Light, the GivePower Foundation, and Zero Mass Water to bring 15,000 pounds of solar, battery-storage, and water-purification equipment to the island. Our employees, equipment, and expertise went first where it was most needed: three fire stations that could help rescue many of the most isolated Puerto Ricans in rural communities around the island. Those fire stations now have the technology to power their critical systems at all times. The solar and battery systems have operated without interruption since installation, in spite of multiple blackouts, enabling firefighters to support and bring critical relief to their communities during emergencies. We have also committed to install equipment at five more fire stations by June 2018.

Sunrun also partnered with the Solar Foundation, the Clinton Foundation, major humanitarian organizations, and solar-energy companies across the country to mount an industry-wide relief effort to restore electricity in Puerto Rico and the U.S. Virgin Islands. That effort, Solar Saves Lives, is organizing donations of solar and storage technologies to power critical infrastructure in disaster-affected regions. These donations are being made to fulfill specific needs on the ground as assessed by local officials and relief organizations.

## BY THE NUMBERS

**15,000**

pounds of solar equipment  
initially brought to the island

**25,000**

pounds of solar equipment  
committed by Sunrun with  
Solar Saves Lives to power  
food and medical centers

**8**

fire stations to be  
outfitted with solar and  
battery systems

**\$40,000**

donated by Sunrun  
employees and corporate  
matching to Puerto Rico  
relief efforts through  
Direct Relief

## SPOTLIGHT

## PUERTO RICO

More than 20 companies joined Sunrun in the launch of this program and have already provided \$5 million in solar equipment ranging from lanterns and cellphone chargers to solar refrigeration and water-purification units. Companies also donated the equipment for large-scale solar systems. Sunrun itself pledged approximately 25,000 pounds of solar equipment to power food markets and medical centers across Puerto Rico.

To provide Sunrun employees with a way to contribute, the company set up a donation fund with the goal of raising \$20,000 for Direct Relief, an organization that provides immediate relief to the victims of natural disasters around the world. Donations from employees and matching corporate gifts amounted to more than double the \$20,000 goal.





## SPOTLIGHT

## GRID ALTERNATIVES



GRID Alternatives is a not-for-profit solar installer that works throughout the United States to bring solar electricity to low-income families and provide valuable job training to their communities. To date, GRID has installed more than 9,000 systems and provided job-training opportunities to more than 34,000 people.

In partnership with GRID, Sunrun installed 1,200 solar-energy systems in 2017. More than 100 Sunrun employees participated in these installations, logging 836 hours on 12 single-family projects as well as the 1.95-megawatt Poudre Valley Rural Electric Association community-solar project in Fort Collins, Colorado.

All told, these 13 projects provided 2.03 megawatts of solar to people who might not have otherwise had the opportunity to go solar. What gives us even more pride is the beneficial economic effects that our 12 single-family installations will have on local communities.

Our partnership with GRID goes beyond solar systems. At meet-and-greet sessions for GRID trainees in our Colorado and San Diego offices, Sunrun recruiters talked about our company and the jobs we might have for GRID trainees upon completion of their training. In addition, one of our construction managers was a panelist at a Los Angeles session called Solar Jobs and Second Chances.

Members of our team also participated in the Inland Empire's Solar Employer Survey, a research study done by GRID in partnership with the California Community College Desert Region District with a goal of better understanding the industry's hiring needs, opportunities, and challenges in the Inland Empire.

Sunrun share its job openings with GRID so it can match trainees with our positions. We have received direct referrals from GRID offices as a result. Through our partnership with GRID to date, we have hired at least seven GRID trainees in our Bay Area, Los Angeles, Riverside, and North Valley regions. We are also working with GRID to help them develop training programs that prepare their trainees for our job openings.

## BY THE NUMBERS

**3,075,188**

lifetime kilowatt-hours produced by solar projects installed by GRID and Sunrun volunteers

**\$642,259**

estimated value of energy generated by these systems over their lifetimes—all provided directly to the involved families

**2,055**

tons of carbon emissions prevented (equivalent of planting over 47,800 trees)

**7**

number of GRID trainees hired by Sunrun through our partnership



## COMMUNITY

Sunrun offers its employees two paid volunteer days per year and ample opportunities to engage with colleagues in activities that contribute positively to the local communities we serve. All employees are encouraged to join GRID during partnership installations on work days and to contribute to causes they care about. In particular, Sunrun's Denver office integrated the idea of volunteerism into employees' jobs.



## SPOTLIGHT

## DENVER GREEN TEAM



In September 2016, a few employees in Sunrun's Denver office launched an effort to improve the office's recycling habits. This initiative launched the Denver Green Team. The Green Team has grown to include over 75 members—approximately one-fifth of the Denver office's staff. The in-office initiatives from the Green Team include the following:

- Placing recycling bins in break rooms and posting signs that explain what can and cannot be recycled.
- Promoting understanding of the benefits of recycling by hosting a Recycling Lunch and Learn session in partnership with Waste Management, the office's recycling and waste-disposal provider.
- Creating Take A Bag, Leave A Bag stations in each break room to encourage employees to share bags instead of throwing them away.
- Implementing the Caught Green Handed program to reward Sunrunners for environmentally friendly activities such as composting waste from our design office and monthly birthday-cake celebrations, turning off lights, recycling, bicycling to work, taking the stairs, and managing the weekly Friday Fridge Cleanout
- Starting an electronic-waste recycling program for the office. The Green Team worked with the office's IT staff to encourage employees to recycle all old electrical equipment in our facility.





The Green Team has also organized out-of-office events, which have demonstrated Sunrun's commitment to investing in the well-being of Colorado.

## AMERICA RECYCLES DAY

DENVER PARKS | NOVEMBER 15, 2017

The Green Team organized a park and river clean-up event, where Sunrunners spent the afternoon picking up litter from sections of the Platte River's banks and surrounding city parks. Volunteers cleaned more than 300 pounds of recyclables and approximately 20 pounds of electronic waste.

## PEOPLE'S CLIMATE MARCH

DENVER CIVIC CENTER PARK | APRIL 28, 2017

Sunrun employees joined the People's Climate March, a large event advocating for global action on climate change.



## WILDLANDS RESTORATION

PELLA CROSSING WETLAND RESTORATION | JULY 8, 2017

The 2013 floods in Colorado damaged large expanses of national land, including Pella Crossing, where water levels rose beyond their designed capacity. The Green Team replanted grasses to create habitat for the birds and amphibians found in these areas. To restore the lands, volunteers also collected and disposed of debris carried by floodwaters into this wildlife preserve.

LEFT HAND CREEK | SEPTEMBER 30, 2017

This national-forest area was also damaged by the 2013 floods. The Green Team planted seeds in washed-out areas, installed mesh on a hillside to prevent further washouts from rain and snow melt, and installed check dams.



## WILLOW-TREE FUNDRAISING HARVEST

GOLDEN GATE STATE PARK | FEBRUARY 11, 2017

The Green Team harvested willows from healthy plants for planting nearby as part of restoration efforts. They clipped "poles" from several species of willows to be sold, for no profit, to restoration organizations. The money raised from selling these poles was donated to the Colorado State Forestry Service nursery in Fort Collins.



## CORPORATE GOVERNANCE

Sunrun is committed to achieving and maintaining a best-in-class corporate-governance structure. The company expects all its employees to act according to the highest standards of honesty and ethical conduct. We strictly comply with our Code of Conduct and all applicable laws and regulations in the countries and regions where we do business. Sunrun creates value for customers and builds relationships based on trust by dealing fairly with customers, suppliers, government departments, competitors, and employees. We also promote accountability internally by holding regular staff meetings and sharing financial performance and company updates with employees.

Sunrun maintains a strong open-door policy, a confidential employee hotline administered by an independent company, and an employee relations team in our human resources function dedicated to thoroughly and fairly investigating all employee complaints.

### BOARD OF DIRECTORS

The Board of Directors makes recommendations and conducts unbiased evaluation and supervision of management activities. It maintains an independent majority at all times and comprises eight members, all but two of whom are independent. Steve Vassallo serves as Lead Independent Director and is responsible for overseeing separate meetings of the independent directors. Our co-founder Edward Fenster has served as Chairman since March 2014. The Board also has three women members, including our CEO Lynn Jurich.

The Board has three committees. The Audit Committee assists the board in ensuring we uphold the highest standards of financial integrity through accounting transparency and conformance. The Compensation Committee seeks to align executive compensation with shareholders' interests and corporate goals. The Nominating and Corporate Governance Committee oversees the evaluation of the Board and assists in recommending new members and developing and maintaining corporate governance policies.

### WHISTLEBLOWER POLICY

We promote open communication. Our whistleblower policy encourages employees to use our hotline or web portal to raise concerns confidentially and anonymously, if they prefer. We take all complaints and concerns seriously.

# APPENDIX

## GLOSSARY

**Customers** refers to all residential homeowners (i) who have executed a Customer Agreement or cash sales agreement with us and (ii) for whom we have internal confirmation that the applicable solar system has reached notice to proceed (NTP), net of cancellations.

**Customer Agreement** refers to either a solar power-purchase agreements or a solar lease.

**Megawatts Deployed** represents the aggregate megawatt production capacity of our solar-energy systems, whether sold directly to customers or subject to executed Customer Agreements, for which we have (i) confirmation that the systems are installed on the roof, subject to final inspection or (ii) in the case of certain system installations by our partners, accrued at least 80% of the expected project cost.

**Notice to Proceed (NTP)** refers to our internal confirmation that a solar-energy system has met our installation requirements for size, equipment, and design.

## GHG ACCOUNTING DATA SOURCES AND METHODOLOGY

### GHG EMISSIONS

**Reported scope 1 emissions** include vehicle fleet emissions, which are based on data from Sunrun's fleet-management partner ARI reported in metric tons of CO<sub>2</sub>e for both 2016 and 2017, and emissions from on-site natural-gas consumption, which are based on average office and warehouse square footage figures outlined in the U.S. Energy Information Administration's (U.S. EIA) 2012 Commercial Building Energy Consumption Survey (CBECS). An emissions factor in metric tons of CO<sub>2</sub>e per megawatt deployed was calculated for Sunrun's operations across various eGRID regions and applied to partner megawatts deployed across various eGRID regions to estimate partner emissions attributable to their vehicle fleet and natural-gas consumption from office and warehouse space.

**Reported scope 2 emissions** include those from purchased electricity, which are calculated both for Sunrun and our partners in an analogous fashion as scope 1, using figures for office and warehouse square footage as outlined in the U.S. EIA's 2012 CBECS. An emissions factor in metric tons of CO<sub>2</sub>e per megawatt deployed was calculated for Sunrun's operations across various eGRID regions and applied to partner megawatts deployed across various eGRID regions to estimate partner emissions attributable to electricity consumed in partner office and warehouses.



**Reported scope 3 emissions** are based on a study by one of Sunrun's major module suppliers, which outlines emissions figures for a module that aligns well with the average module wattage deployed by Sunrun over the reporting period. An additional 20% factor was added to this calculation to account for emissions attributable to BOS components, drawing from information presented in a 2011 report from the International Energy Agency, Life Cycle Inventories and Life Cycle Assessments of Photovoltaic Systems.

## EXTENDED CARBON CALCULATIONS

**Carbon balance calculations** are based on derated expected production over 30 years and actual kilowatt-hour production to date. All kilowatt-hour values are translated into metric tons of CO<sub>2</sub>e emissions avoided using the GHG equivalencies calculator provided by the United States Environmental Protection Agency.

**The carbon payback period** is derived by taking Sunrun's 2017 carbon footprint, adding an additional 5% to account for product end use, and dividing that figure by watts deployed in 2017. This gives us the carbon footprint of the average system, which, when divided by the expected carbon offset of the average system after one year, results in the carbon payback period.

**Calculations for the comparison to fossil fuel** are based on average Sunrun system size deployed in 2017, expected average system production derated at 0.06% per year over 30 years, and Sunrun's 2017 carbon footprint. Fossil-fuel figures for other sources of energy were taken from a National Renewable Energy Laboratory (NREL) study on Life Cycle Greenhouse Gas Emissions from Electricity Generation.

**Calculations for avoided air pollution and water consumption** are derived from expected average system production derated at 0.06% per year over 30 years for systems deployed in 2016 and 2017. Energy production was equated to avoided air pollutants and water consumption using information provided by the U.S. Geological Survey and eGRID's Year 2010 Summary Tables.

## ENDNOTES

1. As reported during the first quarter 2018.
2. Based on Sunrun's monthly and prepaid lease customers using (i) estimated pre-solar utility bills minus (ii) estimated post-solar utility bills and any annualized payments from Sunrun through December 31, 2017.
3. Customer count as of December 31, 2017. Installation rate based on 2017 full-year customer deployments divided by 115,000 work-day minutes.
4. Production through December 31, 2017.
5. Based on Sunrun's monthly and prepaid lease customers using (i) estimated pre-solar utility bills minus (ii) estimated post-solar utility bills and any annualized payments from Sunrun through December 31, 2017.
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