THE BEST SOLAR EQUIPMENT UNDER THE SUN.

At SolarCity, we’re out to change the way the world gets power. And nobody ever changed the world by settling for good enough. That’s why, when it comes to equipment, we don’t just meet industry standards—we power past them.

Our obsession with using equipment that outshines and outlasts the rest takes incredibly hard work from our team and the manufacturers we hand-select. The off-the-shelf products others use just don’t cut it with us.

THE TOUGHEST STANDARDS AROUND.

We have the most stringent supplier qualification program in the industry. It can take two years for even the best suppliers to get their products up to our specifications—including extended durability requirements that are 2 to 3 times industry standards.

EQUIPMENT THAT STANDS THE TEST OF TIME.

We push our equipment to withstand the most extreme conditions and degrade far less over time—well beyond industry norms. This is why our panels continue to perform a decade longer than other panels—35 years compared to just 25 years—according to DNV GL, a world-renowned independent testing laboratory.

PROVEN IN OVER 285,000 HOMES.

As America’s #1 solar provider, we’ve installed more solar power systems than anyone in the country. This means we have the most knowledge about what’s working in the field and what needs improvement. We use this knowledge to refine our equipment to be even better year after year.
HOW WE SELECT AND OVERSEE OUR SUPPLIERS

WE FIND THE WORLD’S BEST SUPPLIERS. THEN WE ASK THEM TO BE BETTER.

We travel far and wide to make sure the equipment that ends up on your home is the highest quality in the industry. In fact, our team has flown over 1 million miles in this pursuit—testing and auditing over 100 suppliers in places like Norway, Japan, China and Israel.

And being selected as a supplier is just the beginning of the hard work. Meeting and maintaining our higher specifications is a long and difficult process.

Here’s a look at our industry-leading supplier qualification program:

1. INITIAL SUPPLIER QUALIFICATION
Before we choose our suppliers, we inspect every single factory—often multiple times. Suppliers must prove they can manufacture products that meet our advanced specifications and quality requirements. They also must pass an onsite factory audit and reliability tests performed by us and independent third-party labs we select. This qualification process can take several years.

2. PRODUCTION OVERSIGHT
We firmly believe success is in the details, so we continue to visit our suppliers after they’re selected. SolarCity and third-party auditors perform regular inspections and factory audits to ensure all of our suppliers are meeting our high quality standards.

3. ONGOING RELIABILITY TESTING
To make sure our suppliers continue to comply with our initial qualifications and quality criteria, we perform ongoing quality assurance and reliability testing at multiple third-party labs. As part of our industry-leading reliability program, we do extensive tests on randomly selected panels from each supplier every month.
HOW WE MAKE SURE OUR PANELS LAST

OUR PANELS ARE DESIGNED TO SURVIVE THE WORST STORM IN CENTURIES.

Sure there are industry standards, but we see those as a mere starting point. We want our panels to be ready for temperatures more extreme than the most extreme places on Earth. For snowfall that crushes records (and lesser panels). For humidity that would make jungles cry. And winds so bad they’re only likely to occur every 700 years.

TEST, IMPROVE, REPEAT.

We try our hardest to make every product fail so the ones that end up on your house won’t. Every component goes through rigorous testing that simulates conditions in the real world. And the not-so-real world.

Once a product gets our seal of approval, we continue monthly reliability testing to make sure there are no glitches in the manufacturing process. And we put every component through outdoor field testing and pilot programs.
HOW WE SELECT THE PERFECT INVERTER FOR YOU

NOT JUST THE BEST INVERTERS ON EARTH, BUT THE BEST ONE FOR YOUR HOME.

Our inverters are built as tough as our panels. Each one has to meet SolarCity standards that are four times the industry requirements so they can power through the worst that Mother Nature and the electrical grid throw their way—including extreme electrical current loads.

THE RIGHT INVERTER FOR YOUR NEEDS.

Offering the best inverters out there isn’t enough. Our team of expert design engineers also make sure you’re getting the absolute best inverter for your particular needs.

Other solar companies might try to sell customers expensive panel optimizers that aren’t the right choice for the vast majority of homes. In most cases, it won’t increase energy production and raises electricity costs. We customize your equipment based on your home’s unique qualities so you’re getting the power you need at the best value.

There are times when a panel optimizer will allow a homeowner to generate more electricity at a lower price—like if the home has a complex roof with small roof planes facing different directions. In cases like this, we’ll give you a SolarEdge optimizer at no additional cost. It’s all about what’s best for you.
OUR TESTS GO ABOVE AND BEYOND.

We test, test and test some more—going well beyond industry standards to make sure our equipment is ready for just about anything. In fact, we allow just 2–3% degradation in our panel tests instead of the standard 5%, which is why our panels last longer.

**THERMAL CYCLING**

<table>
<thead>
<tr>
<th>Industry Standard</th>
<th>SolarCity Test</th>
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<tbody>
<tr>
<td>600 Cycles</td>
<td>-40°C to +85°C</td>
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**ABILITY TO SURVIVE EXTREME TEMPERATURES**

We subject panels to extreme temperature swings for three times the number of cycles.

**DAMP HEAT**

<table>
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<tr>
<th>Industry Standard</th>
<th>SolarCity Test</th>
</tr>
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<tbody>
<tr>
<td>2000 Hours</td>
<td>85% Relative Humidity @ 85°C</td>
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**ABILITY TO WITHSTAND HUMIDITY**

We expose panels to humidity higher than Florida in summer for twice as long as required.

**PANEL TESTS**

- Light-induced degradation
- Thermal cycling
- Damp heat
- Humidity freeze
- Dynamic mechanical load
- Static mechanical load
- Potential-induced degradation
- Ultraviolet
- Hotspot
- Salt spray
- Incident angle modification
- Flash and electroluminescence
- Field exposure and operating
- Wet leakage
- High potential

**INVERTER TESTS**

- High-temperature operating bias
- Low-temperature operating bias
- Damp heat under bias
- Salt spray
- Field exposure and operating
- Passive thermal cycling
- Active thermal cycling
- Humidity freeze cycling
- Mechanical vibration
- Ground fault
- Arc fault
- AC short circuit
- Performance under shaded conditions
A SELECTION OF OUR QUALIFIED SUPPLIERS

WE WORK WITH THE BEST AND BRIGHTEST SUPPLIERS ON THE PLANET.

SOLAR PANEL SUPPLIERS

Kyocera
Founded in 1959, this Japanese high-tech powerhouse began working on solar panels in the mid-1970s. Their hard work has paid off—leading third-party experts have awarded Kyocera the highest level of reliability.

REC
The Renewable Energy Corporation (REC) was founded in 1996 in Norway and is the largest European brand for solar panels. REC has delivered over 5GW and will produce almost 1.5GW in 2016.

Trina Solar
The largest manufacturer of solar panels in the world, China-based Trina Solar has delivered over 20GW since 1997. They’re on track to deliver over 6GW in 2016 with revenue over $3.5 billion.

INVERTER SUPPLIERS

Delta Electronics
Founded in Taiwan in 1971, Delta is one of the largest power supplier manufacturers on the planet. They’ve supplied over 5GW of solar inverters to business and individuals all over the world. And their power supplies are found in the data center of some of the biggest companies on the planet—including Microsoft, Amazon, Schneider, Apple, Tesla, GE, and Bosch.

ABB
Over 120 years old and operating in 100 countries, ABB is one of the largest suppliers of electrical equipment and one of the most trusted brands supplying to utility companies. This Swedish-Swiss company has sold over 24GW of solar inverters—making them one of the top 3 suppliers of all time.

SolarEdge
This cutting-edge Israeli manufacturer has delivered over 3.5GW of inverters over the last 10 years. We use their panel optimizers to meet the demands of certain customers when ABB and Delta inverters can’t generate enough power due to special conditions of the home.