



SUNPOWER®

CHANGING THE WAY  
OUR WORLD IS POWERED



#### FINDING A BETTER WAY.

It's a pursuit that drives us every day. A belief that solar energy is the better path forward. And that relentless innovation leads to the world's best solar technology. It's a spirit of excellence we share with the countless homeowners, businesses, organisations and record-setting pioneers who place their trust in better solar from SunPower.





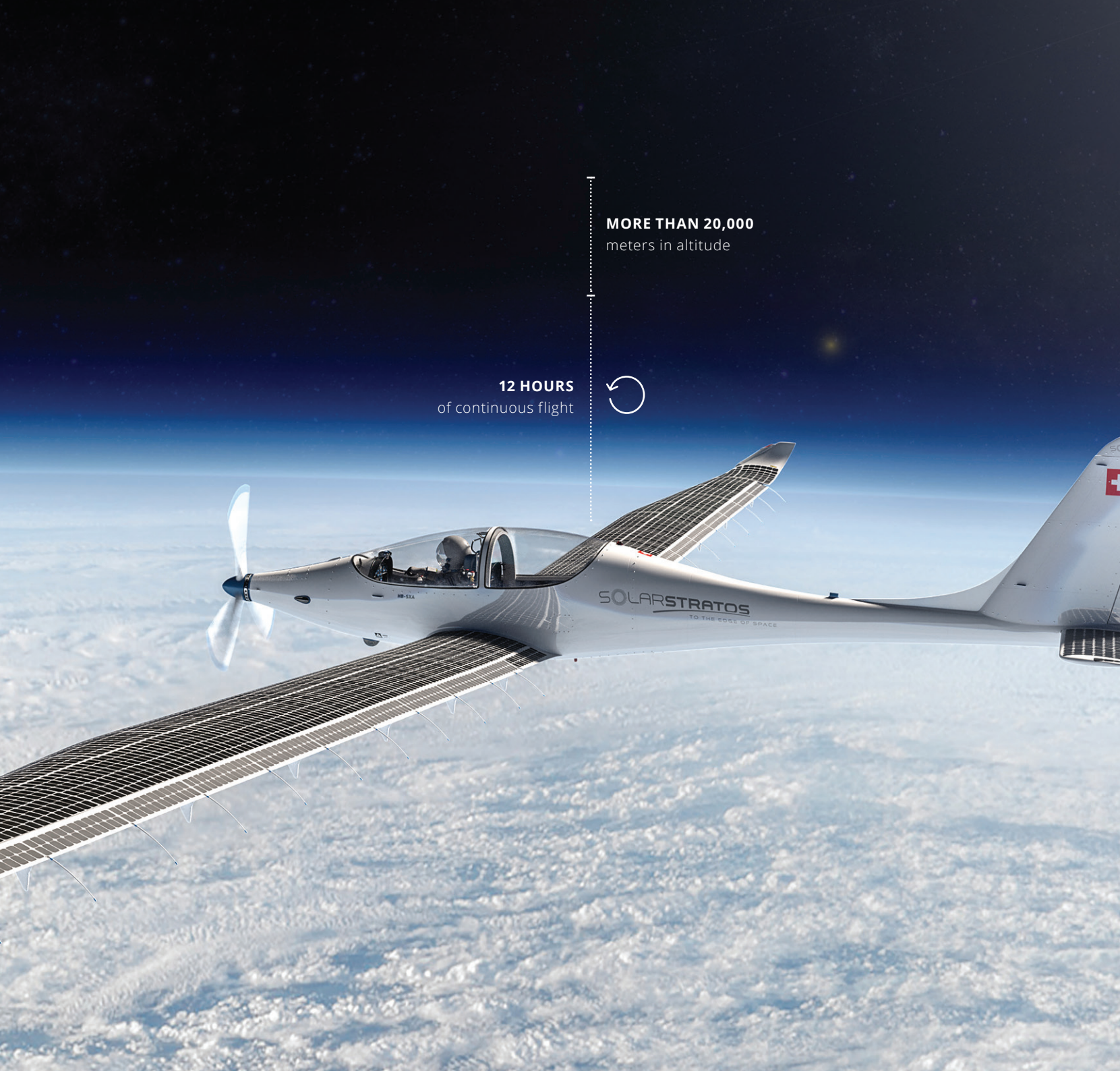
## TAKING SOLAR TO NEW HEIGHTS.

When it comes to maximising solar energy, SunPower delivers. Just ask the creators of Mission SolarStratos, the first manned solar plane designed to reach the stratosphere. They trust SunPower® technology – the aircraft's sole source of power – to produce the most energy in a very limited space. No wonder so many rooftops, carports and power plants use the same advanced technology back here on Earth. After all, SunPower makes the highest efficiency solar panels available, producing up to 55% more energy from the same space over the first 25 years of operation.



**SOLARSTRATOS**  
TO THE EDGE OF SPACE





**MORE THAN 20,000**  
meters in altitude

**12 HOURS**  
of continuous flight



## SUNPOWER ADVANTAGE



**UP TO 55% MORE ENERGY<sup>1</sup>**  
maximum energy, maximum savings

**22.6%**

**UP TO 22.6% PANEL EFFICIENCY**  
#1 efficiency available in the solar industry since 2007<sup>2</sup>



## FOUNDED IN 1985

Silicon Valley, California, USA

SunPower is a majority-owned subsidiary of Total S.A., a \$168 billion energy company.<sup>3</sup>



## SUNPOWER ADVANTAGE



### 80% OF TOP ADOPTERS

8 of the top 10 corporate solar buyers choose SunPower<sup>4</sup>



### #1 U.S. COMMERCIAL MARKET SHARE<sup>5</sup>

2017 and 2018



### LEADER IN SUSTAINABLE MANUFACTURING

SunPower has set new solar industry standards

- #1 Silicon Valley Toxics Coalition (SVTC) Solar Scorecard
- 1<sup>st</sup> Cradle to Cradle<sup>TM</sup> Certified Silver<sup>6</sup>
- 1<sup>st</sup> NSF Zero Waste to Landfill
- 1<sup>st</sup> Declare Label
- SunPower<sup>®</sup> panels contribute to LEED credits both Energy & Atmosphere and Material & Resource categories

*"Solar systems are a piece of the solution we can use to become zero carbon at all of our facilities globally.*

*Sustainability is a core value for the company, and SunPower's core values were in alignment with Toyota's."*

#### MARK YAMAUCHI

MANAGER, ENVIRONMENTAL SUSTAINABILITY  
TOYOTA MOTOR NORTH AMERICA

#### TOYOTA

**ZERO CARBON GOAL**  
in operations by 2050

Toyota Motor North America achieved LEED Platinum by using SunPower's Cradle to Cradle Certified<sup>TM</sup> Silver<sup>6</sup> solar panels for their 8.8-megawatt solar system.



## ENERGISING A SUSTAINABLE FUTURE.

What do two sailors in a race boat have in common with a global automotive manufacturer? A vision of a sustainable, zero-carbon world – and a trust in SunPower innovation to help make it a reality. And while the Phil Sharp Racing Team and Toyota Motor North America aren't affiliated with each other, they both chose SunPower technology for unmatched reliability and record-setting performance. Whether you're seeking solar energy for a modest home or a worldwide initiative like the Toyota Environmental Challenge 2050, SunPower is the proven choice for your sustainable future.



## MAKING A RELIABLE DIFFERENCE.

Living in a small village without electricity, Naima used to teach her brother in the faint light and harmful fumes of a kerosene lantern. That was before a Nokero solar light, powered by a tiny SunPower cell, changed everything. This clean, reliable light source now extends their study time, and quite possibly their lives. Thousands of kilometers away, a number of the world's largest solar power plants depend on SunPower technology to produce massive amounts of clean energy. Whether our innovative solutions are powering an entire city, or a tiny room in a faraway village, SunPower leads the way when reliability matters most.



1.7 MILLION  
solar lanterns shipped



## SUNPOWER ADVANTAGE



### PANEL WARRANTY

Industry-leading 25-year power, product and service coverage<sup>7</sup>

# 40+ YEARS

### 40+ YEAR PANEL USEFUL LIFE<sup>8</sup>

SunPower panels are engineered to operate beyond their warranty

- Performance Panels: 35+ Years
- Maxeon® Panels: 40+ Years

# 0.005%

### PANEL WARRANTY RETURN RATE

Only 1 in 20,000 SunPower panels is returned<sup>9</sup>

### 8.5 MILLION PEOPLE

whose educational, safety, health and financial conditions have been improved by Nokero solar lanterns

### 0.26 WATTS OF SOLAR

tiny SunPower cells power each Nokero solar lantern, the most efficient in the world<sup>10</sup>



## SUNPOWER ADVANTAGE

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### #1 R&D INVESTMENT

SunPower invested more in R&D than any other crystalline panel manufacturer from 2007-2017.<sup>11</sup>

1,000+

### SOLAR PATENTS

demonstrate SunPower's innovative leadership across the industry.



### 2 PROPRIETARY PANEL LINES

with more than 1 billion cells produced and 30 million panels shipped globally.



### LOON'S MISSION

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is to connect people everywhere.  
To learn more, visit [loon.com](https://loon.com)



## SETTING NEW LIMITS.

True innovation takes more than ambition; it requires complete dedication. At SunPower, we invest more in research and development than any other silicon solar company, resulting in two proprietary cell technologies and more than 1,000 patents. It's a commitment that leads to collaboration with other pioneers like Loon, one of Alphabet's newest independent businesses (formerly a part of Google [X]). By powering on-board electronics for their network of stratospheric balloons, we've helped Loon since 2013 to provide emergency internet connectivity to Puerto Rico and Peru. Loon's revolutionary technology is connecting people in underserved and unserved communities around the world. It is a gratifying example of how our heads-down approach can open up new horizons.





## DELIVERING EXCEPTIONAL SOLAR FOR EVERY NEED.

Vast rooftops without a vast budget? Tight on space, but big on energy demands? Whatever your unique energy needs, SunPower has the answer. Our robust panel portfolio offers an impressive range of powerful solutions, each designed for optimal performance, maximum savings and long-term reliability. And since SunPower is a Tier 1 Manufacturer<sup>12</sup> with more than 30 years of solar expertise, you're making the best choice for decades to come.



All SunPower panels are backed by our Complete Confidence Panel Warranty, with industry-leading 25-year coverage.<sup>7</sup> Our absolute confidence in the integrity of SunPower technology – backed by extensive third party testing and field data from more than 30 million SunPower panels – means you get the best warranty available, and complete peace of mind. SunPower is solar you can believe in, and is backed by Total S.A., the 4th largest energy company in the world, with a market capitalisation of \$168 billion.<sup>3</sup>



# SUNPOWER® | MAXEON®

FUNDAMENTALLY DIFFERENT. AND BETTER.



**#1 SOLAR PANEL EFFICIENCY<sup>2</sup>**  
in the market, fitting more energy in less space

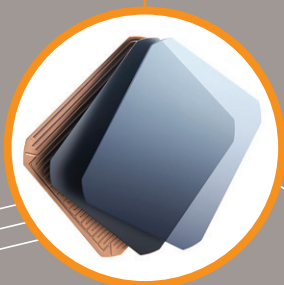


**#1 LOWEST DEGRADATION RATE**  
in the solar industry<sup>13</sup>



**#1 IN DURABILITY<sup>13</sup>**  
with a 40 year useful life<sup>8</sup>

Ultra-pure silicon on a  
patented copper foundation



# SUNPOWER® | PERFORMANCE

MAKING THE CONVENTIONAL, EXCEPTIONAL.

1.5

**1.5 GW PRODUCED**  
making it the industry's most deployed shingled cell technology

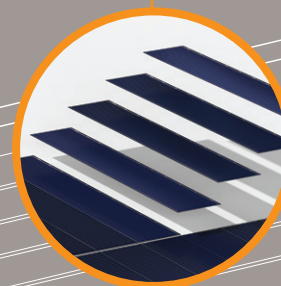


**2018 TOP PERFORMER<sup>14</sup>**  
in the DNV GL PV Module Reliability Scorecard



**30+ YEARS MANUFACTURING EXPERTISE**  
for proven reliability while minimising upfront costs

Unique mono PERC  
shingled cell panel design



Since 1985, we've been focused on one singular mission: changing the way our world is powered. In that time, our innovative approach to solar has produced an incredible 10 GW of clean energy, the equivalent of removing 11.2 million cars from the road, annually.

It's a deeply gratifying accomplishment. But the true credit belongs to our customers – people around the world who have chosen to embrace solar energy by placing their trust in SunPower. Without them, we're just scientists and engineers, designers and dreamers. Together, even the most audacious goals are well within reach.

[SUNPOWER.COM](https://www.sunpower.com)

- 1 SunPower 400 W, 22.6% efficient, compared to a Conventional Panel on same-sized arrays (280 W p-multi, 17% efficient, approx. 1.64 m<sup>2</sup>), 8% more energy per watt (based on PVSIM runs for avg US climate), 0.5%/yr slower degradation rate (Jordan, et. al. Robust PV Degradation Methodology and Application. PVSC 2018).
- 2 Based on search of datasheet values from websites of top 20 manufacturers per IHS, as of January 2019.
- 3 Source: Forbes 'Global 2,000 List', market capitalisation as of June 2018.
- 4 Source of Top 10 corporate solar buyers: Solar Energy Industry Association.
- 5 SunPower ranked #1 in U.S. Commercial Solar based on Capacity, Wood Mackenzie (formerly known as Green Tech Media).
- 6 Cradle to Cradle Certified™ is a certification mark licensed by the Cradle to Cradle Products Innovation Institute. Cradle to Cradle Certified™ is a multi-attribute certification program that assesses products and materials for safety to human & environmental health, design for future use cycles, and sustainable manufacturing.
- 7 Competitor warranty information provided from latest warranty documentation from various conventional panel manufacturer websites as of December 2018.
- 8 Performance panels expected useful life of 35 years. Source: "SunPower P-Series Technology Technical Review," Leidos Independent Engineer Report. 2016. SunPower Maxeon panels expected useful life of 40 years. Source: "SunPower Module 40-Year Useful Life," Useful life is 99 out of 100 panels operating at more than 70% of rated power.
- 9 SunPower panels are less than 50 dppm, or 0.005%, on over 15 million panels shipped - Source: SunPower White Paper, 2019.
- 10 The Nokero N233, featuring SunPower solar, has the highest lumen-hours-per-Watt in the solar lighting category. Source: Nokero.
- 11 Between 2007-2017, SunPower spent more money in R&D than any other crystalline module manufacturer. Source: PVTech.com. R&D spending analysis of top PV module manufacturers, Osborne (2017) (2018 based on publicly reported R&D spending).
- 12 Source: IHS Markit (Apr. 2019).
- 13 Jordan, et al, "Robust PV Degradation Methodology Application" PVSC 2018 and "Compendium of Photovoltaic Degradation Rates" PIP 2016.
- 14 DNV GL PV Module Reliability Scorecard: <https://www.dnvgl.com/publications/2018-pv-module-reliability-scorecard-117982>.



DEMAND BETTER SOLAR

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