SunPower® Performance Panel Hypercells

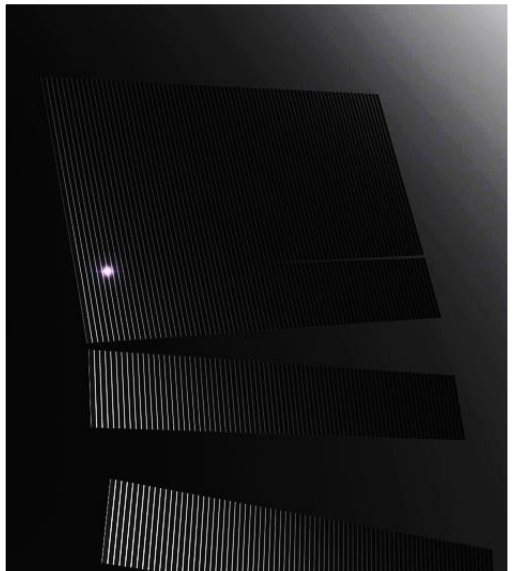
The unique and innovative backbone behind Performance panel durability

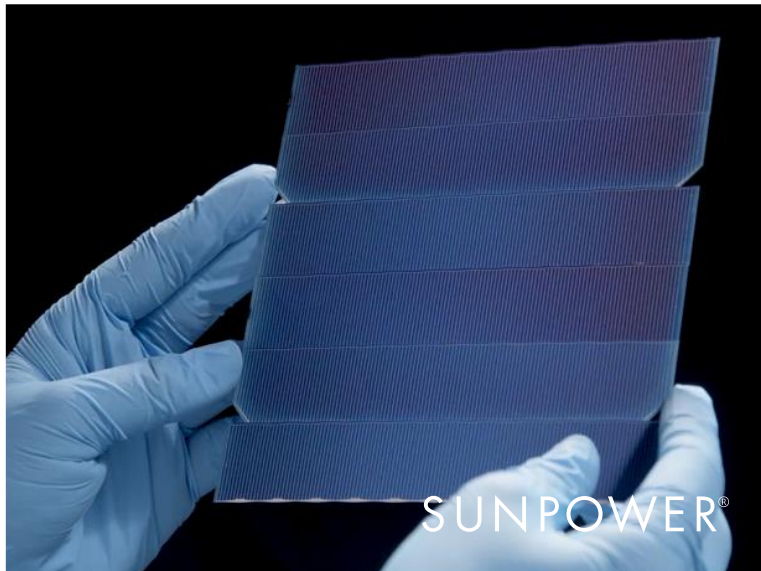
Building a stronger foundation from conventional cells

Shingled layout improves panel efficiency by shortening the distance for electrons to travel

Fragile front-side, metallic connective ribbons are replaced by a solderless, aerospace-grade electrically conductive adhesive (ECA)

An advanced encapsulant better protect cells, limiting degradation from environmental exposure



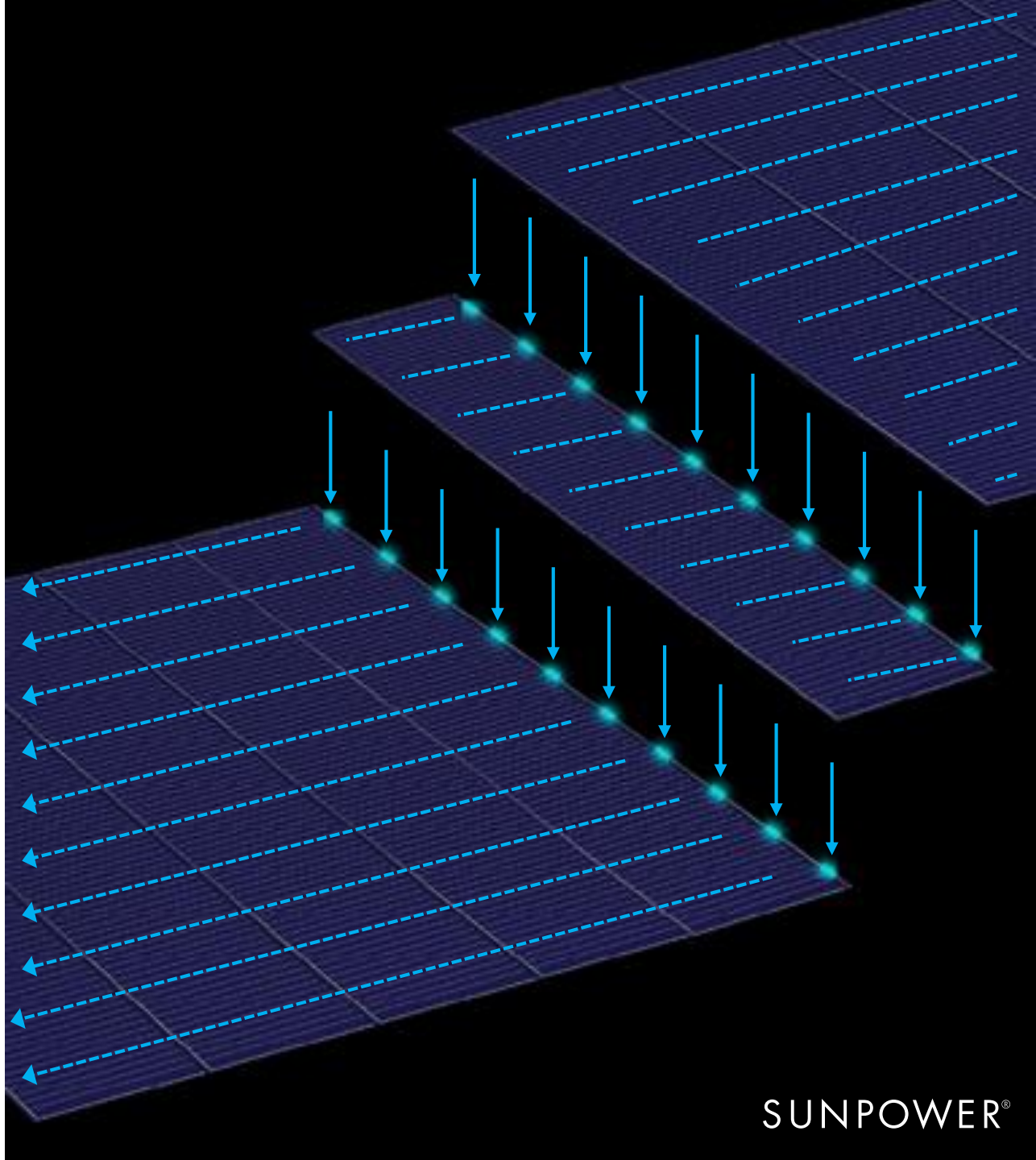


Reinforcing cell connections for maximum durability

Aerospace-grade ECA better withstands the stresses of daily temperature swings

Redundant cell connections create flexible paths for continuous electricity flow

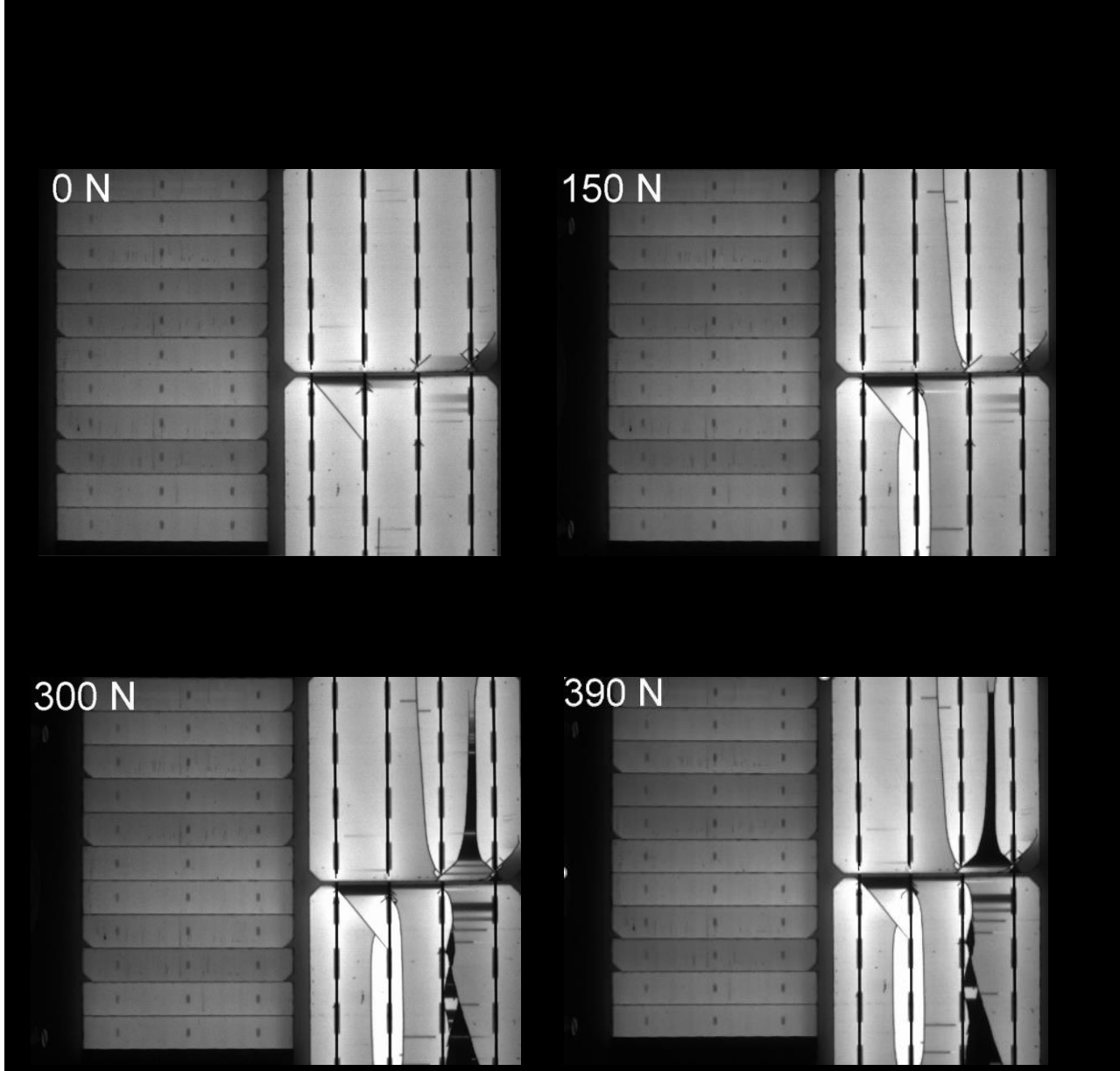
Robust connections and energy paths enable panels to perform better in partial shade



Bending where others break under pressure

Smaller cells are less susceptible to breakage and confine cell cracks to a smaller portion of the panel, maximizing energy generation

These EL scans from a 4-point bend test at a mechanical load of nearly 400 N show no cracking in the Performance hypercell



EL scans collected from internal SunPower laboratory testing of conventional front contact mono PERC cell stringing vs SunPower Performance panels; September, 2017.

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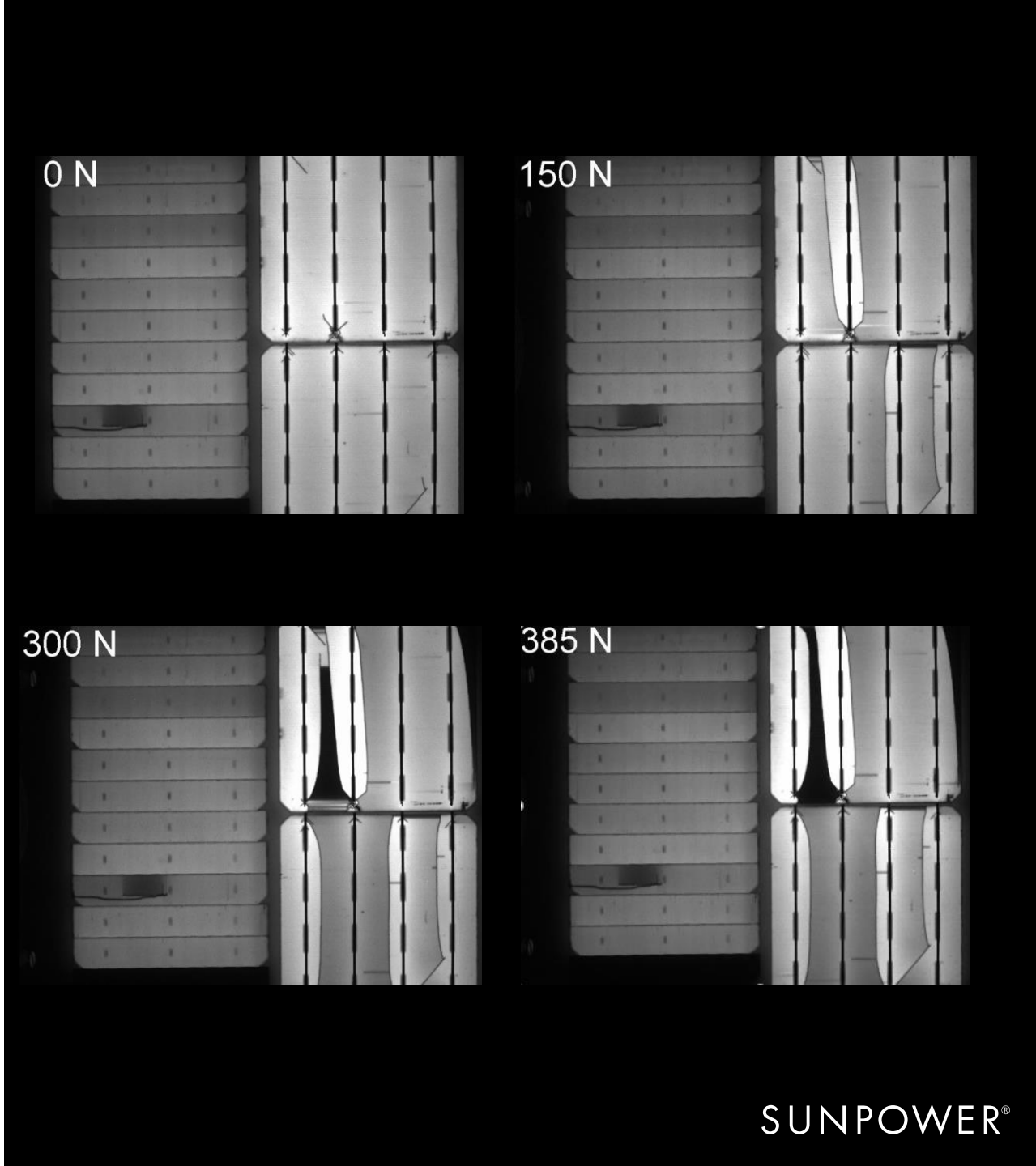
Bending where others break under pressure

Even when cracks are purposely introduced to Performance cells before testing, they do not propagate to other cells

Cracks that may form in a Performance panel are therefore contained, limiting the impact to an area 1/6 the size of a standard cell



EL scans collected from internal SunPower laboratory testing of conventional front contact mono PERC cell stringing vs SunPower Performance panels; September, 2017.

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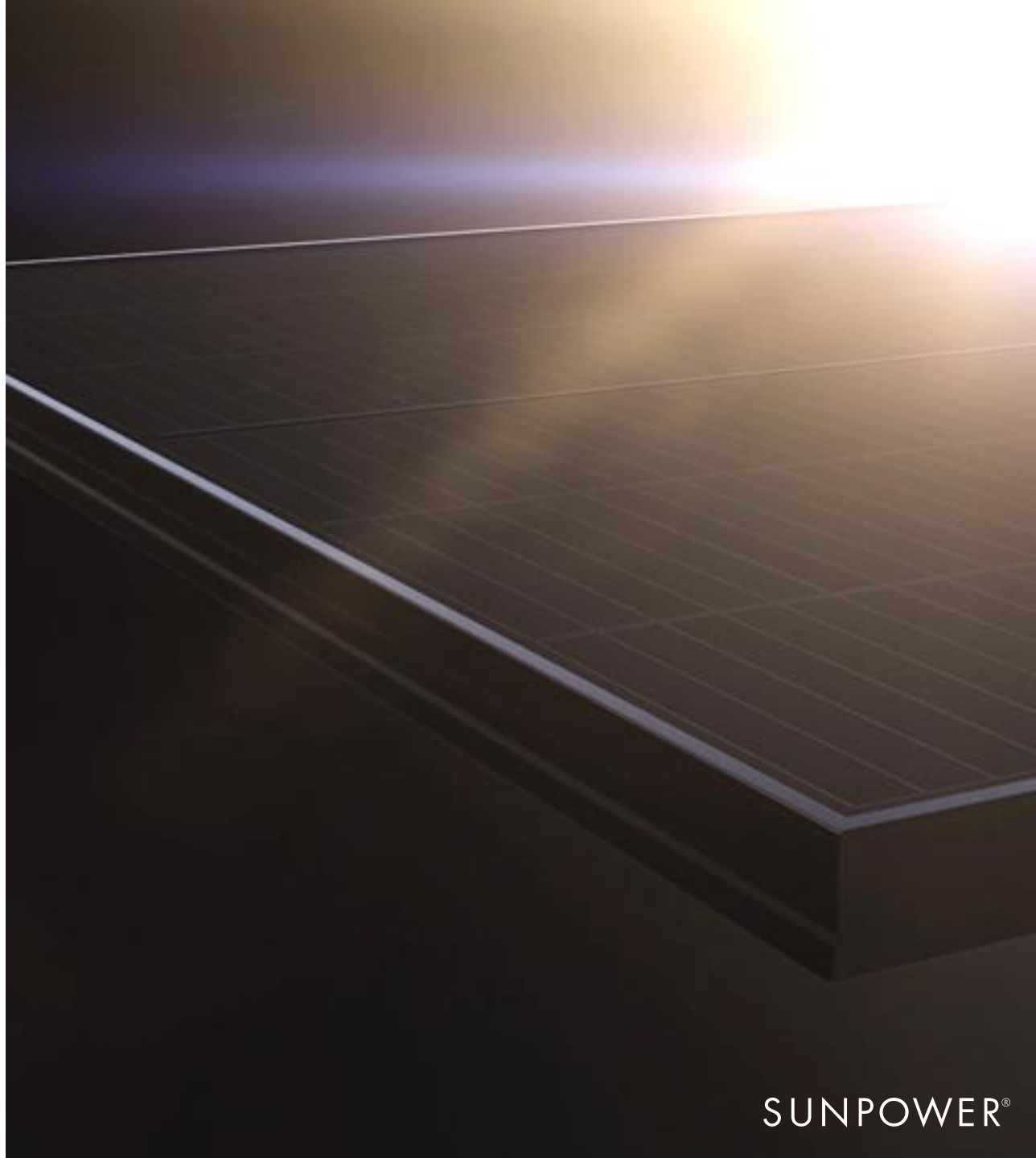
Making the conventional, exceptional

Durability that extends the life of your panels

Up to 8% more energy in the same space over 25 years compared to Conventional mono PERC Panels[1]

Backed for 25 years by SunPower's Complete Confidence Panel Warranty



1 SunPower 425 W, 20.6% efficient, compared to a Conventional Panel on same-sized arrays (370 W mono PERC, 19% efficient, approx. 1.94 m^2), 0.25%/yr slower degradation rate (Jordan, et. al. Robust PV Degradation Methodology and Application. PVSC 2018).

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DNV GL Reliability Scorecard

SunPower® Performance panels achieved Top Performer in all categories

4 of 4
TOP PERFORMER

Thermal Cycling	Damp Heat	Dynamic Mechanical Load	Potential Induced Degradation
✓	✓	✓	✓

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1 SunPower Performance P19 panels identified as top performers in the 2018 DNV GL PV Module Reliability Scorecard: https://www.dnvgl.com/publications/2018-pv-modulereliability-scorecard-117982.