# Solar power technology news

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Our industry-leading journals – PV Tech Power and Photovoltaics International offer indispensable article and technical papers produced by experts in their field to help educate and inform your business.

The solar industry’s leading downstream publication, PV Tech Power addresses all key stakeholder groups accelerating the global large-scale deployment of solar PV and energy storage technologies.

Launched in 2008, Photovoltaics International remains the only independent journal within the PV industry that carries technical papers written by recognised industry experts, highlighting technological innovation and manufacturing excellence.

Imperial Star Solar, which will start module assembly out of its Texas factory before the end of the year, announced it has entered into a multi-year supply agreement with Suniva for American-made solar cells. Market availability of the solar panels with Suniva cells will begin in the first half of 2025. "This partnership with Suniva…

The rapid expansion of utility-scale solar farms across the U.S. has brought much-needed renewable energy to the grid. However, this boom has forced many project owners to look for less-than-desirable land to keep up with current growth. In many cases, solar installations are being built on farmland that"s never had to comply with the level…

Solar Magazine is a major solar media outlet established to connect and build close ties between participants in the solar energy industry, including installers, contractors, developers, EPCs, government agencies, and industry organizations. Read more solar news here->

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Silicon is the workhorse material inside 95% of solar panels. Rather than replace it, Oxford PV, Qcells and others are piggybacking on it -- layering perovskite on silicon to create so-called tandem cells. Because each material absorbs energy from different wavelengths of sunlight, tandems could potentially deliver at least 20% more power than a silicon cell alone; some scientists project much greater gains.

Perovskite supporters say that this extra electricity could more than offset the additional costs of tandem cells, particularly in crowded urban areas or industrial sites where space is at a premium. "Our biggest initial demand is from utilities, because they simply don"t have enough accessible land," says Case.

As perovskite-silicon tandems get closer to market, excitement has boiled over into headlines predicting that a "revolutionary" "miracle material" is "about to change the world". The reality is that the industry faces at least two major challenges in its battle to transform the solar market.

First, published research shows that the perovskites" performance declines much more quickly than silicon when they are exposed to moisture, heat and even light. Oxford PV says it has done private research that"s overcome this issue. But "for commercial manufacturing, I would say stability is the key challenge that still remains", says Fabian Fertig, Qcells" director of research and development for wafers and cells, who leads the company"s development of perovskite-silicon tandems.

"The technology we have is definitely good enough to generate as much solar electricity as we can use around the world," says Jenny Chase, a solar analyst at the consultancy BloombergNEF who is based in Zurich, Switzerland.