

20% more powerful tandem solar panels enter commercial use for the first time in the US

- Oxford PV announces world-first commercial sale of next-generation perovskite tandem solar panels set to transform the energy industry and accelerate progress towards clean energy goals.

Sept 2024 — Oxford PV, a global leader in next-generation solar, has started the commercialisation of their record-breaking tandem solar technology with the first shipment to a U.S.-based customer.

The 72-cell panels, comprised of Oxford PV's proprietary perovskite-on-silicon solar cells, can produce up to 20% more energy than a standard silicon panel. They will be used in a utility-scale installation, reducing the levelised cost of electricity (LCOE) and contributing to more efficient land use by generating more electricity from the same area.

This development marks the first commercial deployment of a perovskite tandem solar panel worldwide. Oxford PV has been developing and working to commercialise this technology since 2014, with a recent module efficiency record of 26.9%.

The first Oxford PV panels available on the market have a 24.5% module efficiency, offering performance significantly above traditional silicon technology. The panels are powered by perovskite-on-silicon cells produced at Oxford PV's megawatt-scale pilot line in Brandenburg an der Havel, Germany.

David Ward, CEO of Oxford PV, remarked, "The commercialisation of this technology is a breakthrough for the energy industry. High-efficiency technologies are the future of the solar industry, and that future is starting now."

"Solar innovation will allow us to faster electrify and decarbonise our transportation, homes, and industries. With more electricity generation from the same area, perovskite technology is now helping utilities speed up this transition by offering more energy at a lower cost."

John Bromley, Managing Director – Climate & Clean Energy Investments at Legal & General, a longstanding partner of Oxford PV, added: "At an early stage, we identified the huge potential of perovskites in high efficiency solar power generation and we have supported Oxford PV to become a global leader, not only through multiple record-breaking efficiency achievements in the laboratory, but also on their path to commercialisation of the technology. Companies with high growth potential like Oxford PV are delivering new technologies, solutions and infrastructures that will play a crucial role in the climate transition".

In the coming years, the Oxford PV plans to allocate production from their facility in Brandenburg an der Havel, Germany towards additional utility customers, specialty products and pilot residential applications, while scaling production to gigawatt scale at a future high-volume manufacturing site.

Oxford PV is a pioneer and technology leader in the field of perovskite solar cells. The company was established in 2010, as a spin-out from the University of Oxford. It focuses exclusively on developing and commercialising next-generation tandem solar technology. A research and development site in Oxford, UK, and an integrated production line near Berlin, Germany enable the accelerated transfer of its technology into industrial-scale perovskite-on-silicon tandem solar cell and module manufacturing.

--

Oxford PV ist ein Pionier und Technologieführer auf dem Gebiet der Perowskit-Solarzellen. Das Unternehmen wurde 2010 als Spin-off der Universität Oxford gegründet. Es konzentriert sich ausschließlich auf die Entwicklung und Kommerzialisierung einer auf Perowskiten basierenden Solartechnologie. Ein Forschungs- und Entwicklungszentrum in Oxford, Großbritannien, und eine integrierte Produktionslinie in der Nähe von Berlin, Deutschland, ermöglichen den beschleunigten Transfer der Technologie in die industrielle Produktion von Perowskit-Silizium-Tandemsolarzellen.

Das Unternehmen hat einen klaren Fahrplan, um diese Technologie auf einen Wirkungsgrad von über 30 % zu bringen. Solarmodule, die mit der Solarzellentechnologie von Oxford PV hergestellt werden, erzeugen mehr Elektrizität als vergleichbare PV-Technologien, die nur auf Silizium basieren - ein entscheidender Faktor bei der Bereitstellung von erschwinglicher, sauberer Energie, bei der Beschleunigung der Akzeptanz von Solarenergie und bei der Bekämpfung der Klimakrise.