

Innovation for sustainable mobility: OPES Solar Mobility establishes new production facility for vehicle-integrated photovoltaics

Solar panel expert supports the transportation industry in complying with legal requirements and settles a future technology in Germany

Berlin, 01. September 2023: The upcoming Euro 7 emissions standard and mandatory CO₂ savings targets – the transportation industry faces an urgency to reduce emissions and push the electrification of vehicles. OPES Solar Mobility, a joint venture between solar module specialist OPES Solutions and a German family office, is developing the fitting technical equipment for this fundamental change in logistics and mobility. Specific solar panels that can be installed on the surface of delivery vehicles and buses also reduce energy costs and increase range. For the first time, OPES Solar Mobility is now creating manufacturing capacity with its own technology in Germany to provide specific support to the transportation industry.

The trend toward vehicle electrification is clearly shaping logistics. More and more electric-powered vehicles are delivering goods to their destinations for a variety of purposes. In the transformation from conventional to alternative drives, electricity from solar cells for propulsion is an attractive option for manufacturers of vehicles and box bodies as well as logistics companies and municipalities. Another useful application is the support of energy consumers in vehicles with combustion engines, such as the refrigeration of fresh goods.

The joint venture partners recognized the need and potential of vehicle-integrated photovoltaics at an early stage. With its plant with 300 employees in Changzhou, China, OPES Solutions has advanced to become the world market leader in the field of customer-specific solar module applications. The current decision to establish production capacities marks a clear commitment to Germany as a location for manufacturing innovative solar solutions. In addition, the plant's focus on vehicle-integrated photovoltaics addresses the urgent need for a reliable supply chain and reduction of CO₂ emissions.

Ideal conditions for sustainable mobility

"The transportation industry has traditionally been one of the major emitters of carbon emissions. Only advanced electrification concepts can lead to the urgently needed change. We are contributing to this with our solutions," explains Robert Händel, CEO of OPES Solar Mobility. "Trucks and vans have large surfaces that can be easily equipped with solar modules – combined with increasingly large battery capacities that simplify the use of photovoltaics. Our concept is an ideal fit for this. The solar energy generated can be used for immediate consumption or also stored; a decisive factor for greater ranges and meeting the energy needs of vehicles. With manufacturing capacity in Germany, we are creating new jobs directly on-site and a basis to systematically meet future requirements."

Comprehensive solar expertise with a focus on automotive applications

At the production site, new technology is being used to manufacture an advanced version of the SolFlex module with higher area efficiency and optimized behavior in the event of shading. SolFlex is the first flexible solar module developed together with experienced partners from industry and research specifically for use in vehicles because conventional flexible solar modules do not meet the specific requirements of the automotive sector. For maximum durability, OPES Solar Mobility subjects all modules to rigorous testing. Factors such as vibration exposure, resistance to ice shocks and application of high-pressure cleaners are considered. The adhesive tape applied to the modules has also been extensively tested on various vehicle surfaces. The specified adhesive bonding ensures optimum aerodynamics, condensation drainage, and quick installation.

OPES Solutions will welcome visitors to the IAA Mobility in Munich, Germany, from September 5th to 8th, 2023 in Hall B1, Booth E34.

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About OPES Solar Mobility

OPES Solar Mobility, a joint venture between OPES Solutions and a German family office, produces vehicle-integrated photovoltaics. As a technology partner, OPES Solutions contributes its market-leading expertise and many years of experience in the development and production of modules for a wide range of applications industries where solar was not



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feasible before. Standardized as well as customized design, high durability and an outstanding price/performance ratio are achieved by patented manufacturing processes at OPES Solar Mobility's production site. Research and development partners include the Fraunhofer Center for Silicon Photovoltaics (CSP) and the Fraunhofer Institute for Solar Energy Systems (ISE).

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