

Press release:

Crucial choice: Not all solar technologies are suitable for transport



The transportation sector has recognized the enormous potential for cost savings and environmental benefits offered by solar cells. Nevertheless, making the crucial choice of the right technology is paramount

The 'green revolution' is at the forefront of everyone's thoughts. With the goal of combatting global warming, millions worldwide are investing in solar panels. In recent years, the transport industry has also acknowledged the promise of utilizing solar technology on vehicles.

Low-cost c-Si cells come at a high price

The current market is flooded with questionable products, and many are misled by the wrong technology, mistakenly thinking that they should install crystalline silicon (c-Si) solar cells on their vehicles. Most people don't know that the standard c-Si solar cells we see on rooftops and in large solar installations worldwide are designed exclusively for static use and cannot withstand vibrations. When subjected to shocks, they develop microcracks and hotspots, reducing efficiency and posing a significant fire hazard. Vehicles equipped with c-Si solar cells are not only fire hazards but also support forced labor in China.

Therefore, the choice of solar cells must be carefully considered by companies to make wise and responsible decisions for the business, employees, the planet, and its inhabitants.

CIGS cells for vehicles

The solution lies in Mobile Integrated Photo-Voltaic (MIPV) technology, which comprises Copper Indium Gallium Selenide (CIGS) solar cells explicitly designed for vehicles. Solarbus.pro is the

world's largest supplier of Mobile Integrated PhotoVoltaic (MIPV) solutions for buses, offering CIGS solar cell solutions across countries and time zones. CIGS technology absorbs all colors of light and is 30-40% more efficient than other technologies in similar placements.

Among the advantages is the robustness of CIGS panels, which are resistant to vibrations due to their thin film material, making them impervious to microcracks and hotspots. This not only helps maintain their efficiency but also eliminates potential fire hazards.

Furthermore, our solar cells are far less sensitive to shading, ensuring optimal operation even in busy urban environments, where shadows are often unavoidable. Traditional solar cells shut down completely when shaded, even by a small part of a section, but that's not the case with Solarbus solar cells.

The sooner, the more cost-effective

We have already conducted extensive tests in various climate conditions, and the results are impressive. Most recently, Europart conducted a six-month test on a bus in Germany equipped with a 640Wp solar panel system. It was compared to two identical buses operating without the solar panel solution in the same region.

The data from May to November showed fuel savings of 2.4 liters of diesel per 100 kilometers. During this period, the total savings in diesel fuel amounted to 990.84 liters. If the solar panel set continues to produce the same average amount of electricity in the remaining months, the annual savings would reach 1,649 liters. However, a realistic annual saving of approximately 1,400 liters (equivalent to 3.75 tons of CO₂) is achievable when considering reduced output during the winter season.

All these impressive results were obtained with a 640Wp solar panel system. With a 960 Wp system, the numbers become even more staggering. In this case, diesel savings of up to 2,000 liters per bus per year, equivalent to 5.36 tons of CO₂, can be achieved.

–

How does a sustainable and cost-effective solution sound?

For further information, come visit us in Hall 4, Booth 425 at Busworld 2023.

Contest: Win a complete CIGS plug and play solar cell solution

At Busworld 2023, we have an extraordinary prize on the line. We have an exciting contest where you can win a complete 960 Wp CIGS plug-and-play solar cell solution with instalment included. Don't miss this unique opportunity – visit our booth at Busworld 2023 and participate in the contest.

Contest

Win a complete 960Wp CIGS plug & play solar solution

Sign up for Solarbus.pro's newsletter to enter

Enter now [▶](#)

