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SOLYCO presents TECC-Connect[®] – the first PV interconnection technology without silver, lead, or bismuth

New interconnection technology revolutionizes industrial solar module manufacturing.

The decarbonization of our energy supply requires a massive expansion of renewable energies – especially photovoltaics, which is already among the most cost-effective forms of electricity generation. However, the industrial scale-up of the PV industry faces a central challenge: currently used solar modules rely on critical raw materials such as silver, lead, and bismuth – materials that are expensive, toxic, or difficult to scale.

New Patented Technology

Berlin-based solar company SOLYCO has developed a solution: with TECC-Connect[®], SOLYCO is presenting for the first time at Intersolar 2025 in Munich an interconnection technology that completely eliminates silver, lead, and bismuth – while being cost-effective and future-proof.

"With TECC, we achieve material independence from silver and enable full RoHS compliance," says Dr. Lars Podlowski, CEO and CTO of SOLYCO.

TECC stands for "Thermoplastic and Electrically Conductive Coating" – a process patented by SOLYCO in the EU, the USA, and China, in which special plastic coatings are used instead of soldered connections.

This innovation not only replaces environmentally harmful materials but also enables lower process temperatures. TECC-Connect[®] is ideal for highly efficient cell generations such as heterojunction and perovskite tandem solar cells.

TECC: A milestone for PV industry scaling

- Silver-free PV modules: Reduction of material costs by up to 10 %
- Lead- and bismuth-free: Fully RoHS-compliant, no exceptions required
- Industrially tested: Passed all standard quality and durability tests
- Market launch: First industrially produced TECC-Connect® modules will be showcased at Intersolar 2025

SOLYCO is currently working with several industrial partners to scale up mass production. Larger quantities of TECC-Connect[®] modules are expected to be available on the market starting in 2026.

About SOLYCO

SOLYCO Solar AG, based in Berlin, develops solar technologies "Engineered in Germany." The company focuses on sustainable, durable, and future-ready PV solutions for the international market.