



## **Wattway photovoltaic road paving slabs certified compliant.**

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**Wattway is a French innovation, the fruit of several years of joint R&D by Colas, a world leader in transport infrastructure, and the CEA-Liten laboratories in the frame of l'ITE INES.2S.. As the world's first circulatory photovoltaic pavement, it can be installed on existing roadways to generate renewable electricity. The latest version of the Wattway pavement has just been certified to current IEC standards in the photovoltaic sector, like any standard solar panel - an exciting result and a world first for a circulable module.**

A few years ago, some people thought that developing a photovoltaic module suitable for vehicular traffic was a very bold idea. It took a great deal of perseverance and skill on the part of Colas and CEA-Liten to figure out how to design and develop specific photovoltaic modules resistant to traffic and weather, and how to lay them directly on the asphalt. But the results are there, with over a hundred sites around the world (Europe, Japan, USA...).

### **Certified to international photovoltaic standards**

The latest version of the product, almost twice the size of previous versions, incorporates the latest innovations in terms of materials within the module itself and resin on the front face. Having successfully passed a series of pre-qualification tests, Colas wanted to test its solar slabs to the certification standards IEC 61215, "Crystalline silicon photovoltaic (PV) modules for terrestrial application - Design qualification and approval", and IEC 61730, "Qualification for safe operation of photovoltaic modules", just like a conventional photovoltaic panel.

As these standards are designed to test the long-term performance and design of standard modules, the success of the Wattway module, which uses very different materials and architecture from a conventional module, is an ambitious challenge.

The results of the IEC 61215 and 61730 tests were unreservedly compliant, both in terms of performance stability and module safety. The electrical insulation resistances assessed at the end of each test branch remained well above the required level. Successful completion of all tests confirmed the design and the success of the industrial transfer.

### **Proof of the performance of Wattway modules**

These certifications show that the reliability of Wattway modules is similar to that of photovoltaic panels on the market. This is a key step in the development of the Wattway Plus offer for the production of renewable electricity for on-site self-consumption. Colas and CEA-Liten are pursuing their partnership in order to offer an increasingly high-performance and innovative circulatory photovoltaic pavement.



Credit : Oscar Timmers for Wattway

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*Since 2019, this project is being carried out within the ITE INES.2S, of which Colas is a founding member. INES.2S is an Energy Transition Institute driven by the CEA, bringing together manufacturers, the INES PFE training platform, the Savoie Mont-Blanc University and the CEA. The ITE INES.2S is supported by the French government under the France 2030 program (ANR-10-IEED-0014-01).*

