



TECHNICAL DATASHEET

FIELDS OF USE

As the energy transition unfolds, the photovoltaic road surfacing Wattway is one of the most innovative solutions designed to produce renewable energy locally.

In towns and cities, where electricity needs are growing, Wattway produces energy as close as possible to where it is actually used.

Wattway provides a local, long lasting, short-circuit source of electricity in remote locations, where access to the electricity grid is difficult and connection costs are prohibitive.

Across a variety of trial projects, Wattway is already used to power applications, with or without storage systems, such as charging stations for electrical vehicles and hydrogen-powered bicycles, variable message panels and public lighting.

The idea is to design cities differently, to make them more integrated, more participative, with better sharing of local resources (energy, parking, services). The Wattway solar road is one of the cornerstones of the energy mix in the city of tomorrow, making for easier, more sustainable city living.



The of Wattway

A turnkey solution that adapts to your specific needs:



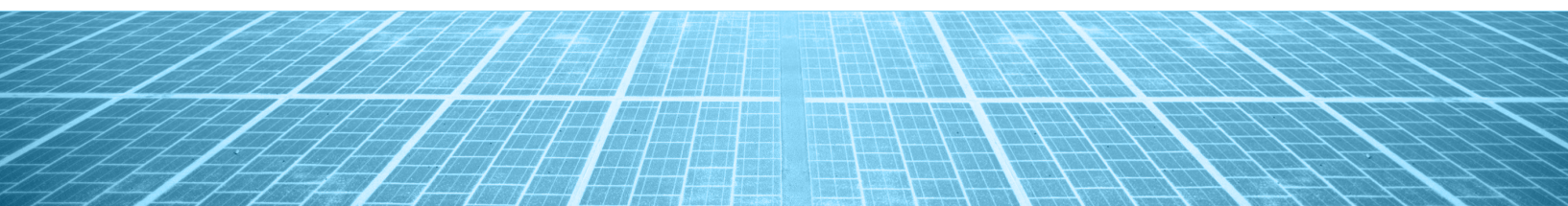
First photovoltaic road surfacing that can bear all types of vehicle traffic



Energy is produced close to where it is used



Optimized use of land resources, rare in urban environments, and valuable in rural areas.





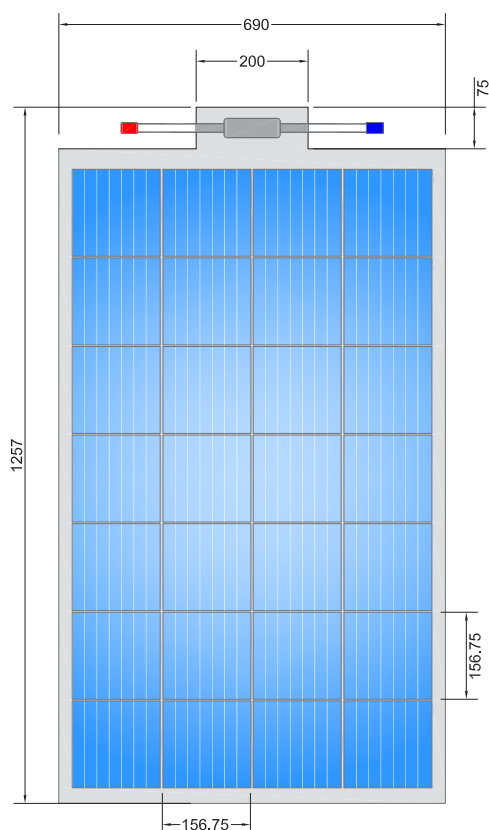
PRESENTATION

Colas invented the solar road in partnership with the French National Solar Energy Institute. For the first time ever, roads can now produce electricity, while preserving their original function as a vector for vehicle traffic.

The very thin yet heavy-duty photovoltaic slabs are simply glued to the existing roadway. The surface texture has been designed to provide as much skid resistance as conventional pavement.

Protected by two patents, this groundbreaking technology gives road a new functionality: producing clean, renewable energy.

WATTWAY MODULE DIAGRAM



TECHNICAL FEATURES

TECHNICAL	
Production surface/module	0.69 m ²
Number of active cells	28
Nominal Power (P _{nom})	125 Wc
Average Yield (module)	18.2%
Maximum power point Voltage (V _{mpp})	15.1 V
Maximum power point Current (I _{mpp})	8.27 A
Open circuit voltage (V _{oc})	18.5 V
Short-circuit current (I _{sc})	8.7 A
Maximum voltage of system	60 V
Power Temp. coefficient (P _{mpp})	-0.40 % / °C
Tolerance (module)	± 5%
Connector	IP68
Inverted Current max	15 A
Number of bypass diodes	2

MECHANICAL	
Dimension of one module	1257 x 690 mm
Thickness	6 mm
Weight	5.5 kg
Impact resistance	IK 07
Cells	Monocrystalline
Road performance	1 million wheel passages (13T per axle)
Grip test	As stipulated in French directives DGTIM/DIT 2015-19

The characteristics of the underlying substrate on which Wattway is installed (condition, design, texture, etc.) must be auscultated and validated by the Technical Department of Colas prior to installation.



by



WE OPEN THE WAY

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