France to pave 1,000 km of road with solar panels

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Ségolène Royal, France’s minister of ecology and energy, has said that the government intends to pave 1,000km of road with photovoltaic panels in the next five years, supplying power to millions of people.

“The maximum effect of the programme, if successful, could be to furnish 5 million people with electricity, or about 8% of the French population”–

The minister told a conference of transport authorities last week that the tenders for the “Positive Energy” initiative had already been issued and the tests on the panels would begin in the spring.

According to France’s Agency of Environment and Energy Management, 4m of solarised road is enough to supply one household’s electricity needs, apart from heating, and one kilometre will light a settlement with 5,000 inhabitants.

So the maximum effect of the programme, if successful, could be to furnish 5 million people with electricity, or about 8% of the French population.
The solarising of France’s roads involves glueing 7mm-thick strips to the surface of the carriageway. The basic technology for this has already been developed by Bouygues subsidiary Colas.

The company’s Wattway panels (pictured above), which took five years to develop, were unveiled in October.

Wattway cells collect solar energy using a thin film of polycrystalline silicon, but are resistant to the passage of heavy goods vehicles and offer sufficient traction to prevent skids.

Ms Royal has proposed to pay for improvements in France’s transport infrastructure by raising taxes on petrol, which she said was “natural” given the falling cost of oil.

She estimates that this could contribute between 200 and 300 million euros ($220-440m) to the cost of improvements such as road solarising.

A number of countries are pursuing the energising of roads.

Last year a Dutch consortium built a 100m-stretch of power generating road in the Dutch town of Krommenie, and in the US a husband and wife team is pursuing the idea after a successful crowdfunding campaign.