

Ford to unveil solar hybrid concept car at CES

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(AP)—Ford plans to unveil at this month's International CES gadget show a solar-powered concept car that offers the same performance as a plug-in hybrid but without the need for a plug.

The C-MAX Solar Energi Concept car uses a gasoline engine combined with a gizmo that acts like a magnifying glass to concentrate the sun's rays on the vehicle's roof-mounted solar panels. The automaker says the vehicle's estimated combined city-highway mileage is 100 miles (160 kilometers) per gallon.

The U.S. auto maker says that by using solar power instead of an electric plug, a typical owner will reduce their annual greenhouse gas emissions by four metric tons.

The company says it sold about 85,000 hybrid or electric vehicles in 2013, including 6,300 units of its C-MAX Energi plug-in hybrid.

The sun-ray concentrator was developed by researchers at the Georgia Institute of Technology and uses what is known as a Fresnel lens, which concentrates light but can be made thinner than a conventional lens. A full day of sunshine is equivalent to a four-hour battery charge, or 8 kilowatts, Ford says.

On a full charge, it should have a range of 620 miles (997 kilometers), the same as the C-MAX Energi. The concept car also comes with a plug-in port for standard electric charging.

Ford says that 75 percent of all trips made by an average driver could be powered by the sun.

After showing off the concept car at the convention in Las Vegas Jan. 7-10, Ford Motor Co. says that it will test the vehicle with institute researchers to determine if it's feasible for mass production.

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