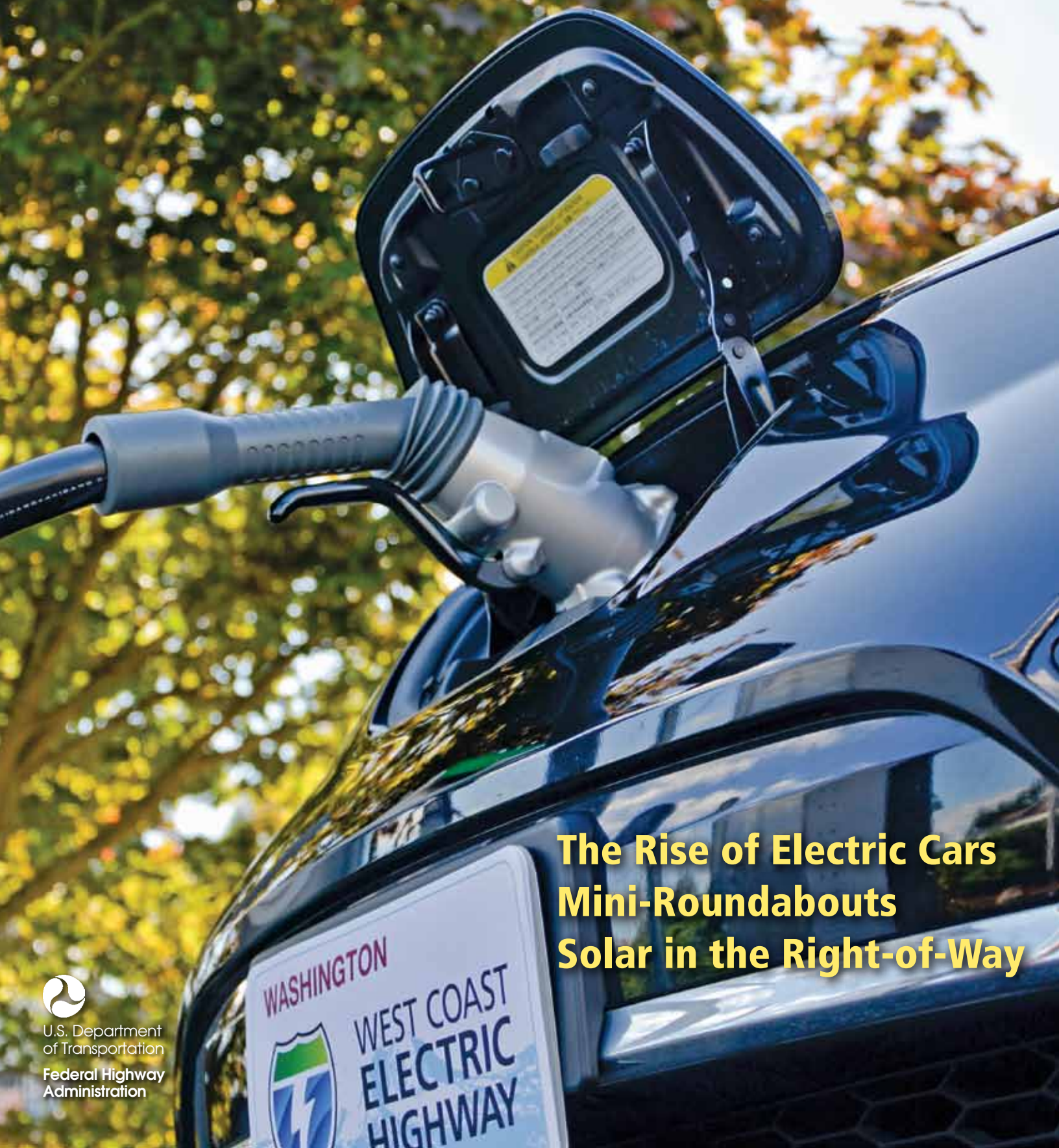


Public Roads

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November/December 2012



**The Rise of Electric Cars
Mini-Roundabouts
Solar in the Right-of-Way**



U.S. Department
of Transportation
Federal Highway
Administration

Articles

The Car of the Future, Today by Diane Turchetta 2

Plug-in electric vehicles have the potential to be a cleaner, more sustainable option for personal travel than conventional vehicles. But market penetration will take time.

Managing Traffic Signals During Storms

by Ahmed Abdel-Rahim and C. Y. David Yang 10

Using weather data from the *Clarus* Initiative, researchers have developed a prototype system that could help reduce crashes at intersections.

They're Small But Powerful by Wei Zhang, Joe Bared, and Ramanujan Jagannathan 14

An FHWA study offers recommendations for constructing mini-roundabouts to reduce congestion and improve safety at intersections throughout the United States.

Spotlight on Solar Arrays by Allison Hamilton 20

Surprise: showery Oregon is a leader in using renewable energy along highways to meet sustainability goals, reduce carbon footprints, support local green jobs—and develop new revenue streams.



Page 2



Page 14



Page 20

Departments

Guest Editorial	1
Along the Road	30
Internet Watch	36

Training Update	37
Communication Product Updates	38
Conferences/Special Events Calendar	40



Front cover—To reduce the country's dependence on fossil fuels, electric vehicles are one option. With more of these automobiles on the road, California, Oregon, and Washington State are supporting the West Coast Electric Highway initiative, which aims to increase the availability of fast-charging infrastructure, such as the station this charger is connected to, along I-5 in Washington State. For more information, see "The Car of the Future, Today" on page 2 in this issue of PUBLIC ROADS. *Photo by Jessie Lin, Washington State Department of Transportation.*

Back cover—Oregon is leading the way in installing renewable energy along highways. This solar array is one of two projects recently completed along I-5 near Portland. The State has the potential to generate 68 million megawatt-hours of solar energy and, through even partial development of those resources, could produce its current annual energy use of 48 million megawatt-hours. For more information, see "Spotlight on Solar Arrays" on page 20 in this issue of PUBLIC ROADS. *Photo by Gary Weber, ODOT Photo/Video Services.*

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ISSN NO. 033-3735

USPS NO. 516-690

FHWA-HRT-13-001
HRTM-20/11-12(5M200)E