

US official: Solar plane to help ground energy use (Update)

June 17 2013, bySeth Borenstein



Andre Borschberg, one of two pilots of the Solar Impulse plane is interviewed by a reporter on a ladder as he sits inside the cockpit of the solar powered plane during a media availability at the Smithsonian National Air and Space Museum's Steven F. Udvar-Hazy Center at Washington Dulles International Airport in Chantilly, Va., Monday, June 17, 2013. (AP Photo/Jacquelyn Martin)

The plane parked outside the airport looks more like a giant exotic insect or maybe an outsized toy.

When it's in flight, there's no roar of engines. It's strangely quiet. And as it crisscrosses the U.S., the spindly plane doesn't use a drop of fuel. Day, and even night, it flies on the power of the sun.

It's that fact that has the U.S. energy secretary, and the plane's two pilots and fans around the world, so excited.

The one-man craft called Solar Impulse has been flying cross-country in short hops as part of a 13-year, privately funded European project that is expected to cost \$150 million.

Ernest Moniz, who heads the U.S. Department of Energy, praised the effort at a news conference Monday in Washington, where the plane landed early Sunday morning. Moniz said it highlighted a cleaner energy future for the nation.

"It's also a poetic project," said Bertrand Piccard, one of the pilots. "It's about flying with the sun. It's about flying with no fuel."

It's not that the experimental plane is going to change the way the rest of us fly, Moniz said. But it may change the way we drive and the buildings we live in sooner than we think.

The lightweight technology will pay off on the ground far more readily than in the air. This project should lead to cleaner appliances, greener cars and more energy-efficient building, said Solar Impulse CEO Andre Borschberg, who also is one of the pilots.

In an in-flight interview Friday, Borschberg said this experiment isn't about aviation being cleaner. Airplanes only produce 3 percent of the world's heat-trapping gases, he said.



Energy Secretary Ernest Moniz, center, talk with Bertrand Piccard, left, and Andre Borschberg, the pilots of the Solar Impulse plane, in front of the purely solar powered plane during a media availability at the Smithsonian National Air and Space Museum's Steven F. Udvar-Hazy Center at Dulles International Airport in Chantilly, Va., Monday, June 17, 2013. The solar-powered plane nearing the close of a cross-continental journey landed at Dulles early Sunday, only one short leg to New York remaining on a voyage that opened in May. (AP Photo/Jacquelyn Martin)

"The potential is on the ground, the potential is not in aviation," he said.
 "On the ground, the potential is huge and is readily available."

Perhaps as early as 2015, an updated version of this solar plane will be flown around the world. Last year, the same plane flew from Switzerland to Morocco.



In this Wednesday, May 22, 2013, file photo, the Solar Impulse, piloted by André Borschberg, takes flight during the second leg of the 2013 Across America mission, at dawn, at Harbor International Airport in Phoenix. The solar-powered plane neared the close of a cross-continental journey and landed at Dulles International Airport outside the nation's capital early Sunday, June 16, 2013, only one short leg to New York remaining. (AP Photo/Matt York, File)

When he first came up with the idea a decade ago, Borschberg said he was told by experts: "Your project is impossible."

Now instead, Moniz said, Solar Impulse is highlighting four high-tech green energy fields that his office is trying to promote: solar power, better batteries that allowed Solar Impulse to fly at night, lightweight materials and integrating everything.



Andre Borschberg, one of two pilots of the Solar Impulse plane, poses for a portrait in the cockpit of the purely solar powered plane during a media availability at the Smithsonian National Air and Space Museum's Steven F. Udvar-Hazy Center at Washington Dulles International Airport in Chantilly, Va., Monday, June 17, 2013. The solar-powered plane nearing the close of a cross-continental journey landed at Dulles early Sunday, only one short leg to New York remaining on a voyage that opened in May. (AP Photo/Jacquelyn Martin)

They'll pay off on the ground quickly, Moniz said. Take the lightweight carbon fiber and lighter solar cells. Once applied to rooftop solar panels, that will bring down costs for houses because much of the problem currently is the size and weight of the panels, he said.

Solar Impulse carries more than 11,000 solar cells—10,746 of them on the long wing that stretches 208 feet. Although it has the wingspan of a jumbo jet, the entire plane weighs just 3,500 pounds (1,580 kilograms), the size of a small car.

More information: www.solarimpulse.com/

© 2013 The Associated Press. All rights reserved.

Citation: US official: Solar plane to help ground energy use (Update) (2013, June 17) retrieved 3 May 2024 from <https://phys.org/news/2013-06-solar-plane-ground-energy.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.