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Fraunhofer Center for Sustainable Energy Systems to Showcase Solar PV Durability Initiative at Solar Power International

Joint initiative with Fraunhofer Institute for Solar Energy Systems addresses bankability hurdles related to PV module technology with quantitative testing and relative ranking data for financiers, developers, other industry players

BOSTON, Massachusetts -- October 17th, 2011 -- Fraunhofer Center for Sustainable Energy Systems (CSE) invites attendees of Solar Power International to learn more about the new Photovoltaic Module Durability Initiative (PVDI) at CSE's exhibit hall booth. This test and research initiative, developed by Fraunhofer Institute for Solar Energy Systems (ISE) and Fraunhofer CSE, addresses market challenges in solar project development and financing due to bankability uncertainties around PV module durability data.

This is the first widely available program to generate extensive, quantitative durability data for modules, relevant for their expected lifetime under different kinds of stress. PVDI's robust testing protocol generates quantitative scores, enabling the credible ranking of modules based on their likelihood to perform reliably—with resulting data that is highly relevant for solar PV financiers, developers, insurers, and manufacturers, all of whom can participate in this program.

"Our new initiative gives investors a tool to obtain a quantitative, third party, independent assessment on the long-term durability of PV modules," said Dr. Harry Wirth, Director of Fraunhofer ISE's Photovoltaic Modules, Systems and Reliability Division.

Current tests according to IEC and UL protocols address the question of early field failure and safety of solar PV modules, but do not yield information about durability—the rate of degradation of power output. PVDI's expanded, comprehensive indoor and outdoor testing addresses durability, exceeding the demands of IEC standard module certification with extended accelerated testing, UV, damp heat with positive and negative voltage bias as well as dynamic mechanical stresses. Also included are typical stresses such as temperature cycling, humidity-freeze, and damp-heat, which have been extended in order to come closer to the actual lifetime stress on a module.

“With PVDI testing and relative ranking, system developers can better understand how a particular module’s durability compares with others in a given application,” said Dr. Christian Hoepfner, Director of Technical Operations at Fraunhofer CSE. “That data helps the developer make informed deployment decisions, and may aid in the financing process. For manufacturers, the data also encourages continuous improvements towards more durable modules.”

A host of additional benefits are available to participants in the program, who include module manufacturers and materials & component suppliers, to PV system developers, financiers and insurers, and other stakeholders in the PV supply chain. Among these benefits are: the ability to propose specific modules for testing, access to quantitative testing data for all modules, and the option to participate in a workshop that meets yearly to discuss improvements to the testing protocol.

Fraunhofer CSE invites attendees of Solar Power International to visit **booth #327** from October 18 - 20 to learn more about the benefits of participation in the Solar Photovoltaic Durability Initiative, or to contact Dr. Dan Doble at ddoble@fraunhofer.org or +1 845-489-1420 for individual appointments.

Additional Information

- PV Module Durability Initiative Overview