



European Distributed Energy Resources Laboratories (DERlab) e.V.

Press release

Quality Standard of the Network of Excellence DERlab for Outdoor Tests Allows Reliable Benchmarking of Photovoltaic Modules

Kassel, 1 September 2011. At a workshop of the conference of the International Solar Energy Society in Kassel, Germany, leading research institutes from Europe and the USA adopted a new draft for an outdoor test standard for photovoltaic modules yesterday. Using this standard, the project partners of the Network for Excellent DERlab (Distributed Energy Resources Laboratory) internationally unify long-term measurements of solar modules under real conditions.

Until 20 September, DERlab will be accepting comments. At the beginning of October, the network will publish the standard.

Measuring Real Yields

“The demand for measurements under real conditions is increasing. We have reacted to this by developing this new standard”, explains Professor Nikos Hatziargyriou, chairman of the DERlab workshop. With the long-term measurement of the effective energy output the standard provides procedures for energy rating of photovoltaic modules outside laboratory conditions.

In parallel in field tests, two modules will be measured for at least a year. A third module kept in a dark place will serve as a comparison. Every 15 seconds the data acquisition will record the current and voltage at the maximum power point of the solar module. In addition, it will measure the irradiation strength and the module temperature and captures the overall current/voltage characteristic.

“With this new standard, DERlab creates uniform measuring procedures with which one can directly compare the energy yield of solar modules site-specifically in different locations and under the most varying of climatic conditions”, says Roland Bründlinger, board chairman of DERlab. “While the IEC standards consider specially the performance of partial aspects of the solar power plants, it is our objective to characterize the entire system in the

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future as a whole. Thus we shortly plan to incorporate inverters in the testing as well.”



Participants of the DERlab workshop on PV Outdoor Tests on the roof of Fraunhofer IWES

The Network of Excellent DERlab

In the network of excellence DERlab promoted by the European Commission, the Fraunhofer Institute for Wind Energy and Energy System Technology (IWES) has been developing, along with its project partners, joint requirements and quality criteria for the connection and operation of decentralised electricity producers since 2005. With the foundation of the association DERlab e.V. in Kassel in 2008, the project partners sealed their continued cooperation even after the six-year research project had ended. The board members are Roland Bründlinger (AIT), Dr. Philipp Strauss (Fraunhofer IWES), Peter Vaessen (KEMA), Prof. Graeme Burt (University of Strathclyde) und Maria-Luciana Rizzi (RSE). Among the partners are the Fraunhofer IWES (Germany), University of Manchester (UK), KEMA (the Netherlands), LABEIN-Tecnalia (Spain), RISOE DTU (Denmark), AIT (Austria), NTUA (Greece), RSE (Italy), CEA (France), TU Sofia (Bulgaria), TU Lodz (Poland), University of Strathclyde (UK), K.U.Leuven for EnergyVille (Belgium), VTT Technical Research Centre (Finland), University of Luxembourg (Luxemburg), and the Sandia National Laboratories (USA).

Further information: www.der-lab.net.

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