



Press Release

International Energy Agency Photovoltaic Power System Programme (IEA PVPS) Publishes New Reports on “PV Performance and Reliability.”

IEA PVPS published its new technical reports on PV Performance on Monday 29 May 2017.

Munich, Germany, 29 May 2017 – Quality and reliability of PV systems is at the core of discussions during this year’s Intersolar Europe fair in Munich. While the PV market grew significantly in the last years, the achievement of long-term reliability and the ability of plants to deliver during their lifetime is a sign of improved maturity for the PV industry.

Following seven years of PV systems performance and reliability research, the IEA PVPS programme’s Task 13 has delivered on a series of reports summarizing these years of intensive research activities. These new reports aim at providing the PV industry with tools and keys to better understand the concepts of reliability and performances, how they are used in the field and their consequences on financial models. In addition, the first report highlights the root causes of module failures.

The first of the three published reports focuses on the **Assessment of PV Modules Failures in the Field**.

It concludes that the right combination of the encapsulant and backsheets films can be beneficial in reducing failures: The degradation modes depend on the bill of materials and components and are unique for each single PV module brand and model. However, there are typically several degradation modes that could act simultaneously to degrade performances, making it challenging to correlate observed effects with single mechanisms.

The second report focuses on the **Technical Assumptions Used in PV Financial Models**

This report highlights best practices used to assess financially PV projects and highlight some ways to improve the understanding of PV performances over the lifetime of the plant.

The third report details **PV Performances Modelling Methods and Practices**

This report summarizes the main findings of a Task 13 workshop jointly organized by “The PV Performance Modelling Collaborative” (PVP/MC). This group was started by Sandia National Laboratories in 2010 to bring together stakeholders with the aim of advancing the “state of the art” in PV performance prediction.

An additional report will be published in the coming weeks. This report details the “Improving Efficiency of PV Systems Using Statistical Performances Monitoring”. It highlights the need for monitoring carefully PV plants and deriving conclusions from observations.

The reports can be found here:

Assessment of PV Modules Failures in the Field: <http://www.iea-pvps.org/index.php?id=435>

Technical Assumptions Used in PV Financial Models: <http://www.iea-pvps.org/index.php?id=426>

PV Performances Modelling Methods and Practices: <http://www.iea-pvps.org/index.php?id=423>

About the IEA PVPS Task 13

Task 13 was established in 2010 within the IEA PVPS programme in order to continue to research activities started in the former Task 2. It is today one of the most respected Tasks within the programme, with contributors from all over the world. The Task is co-managed by TÜV Rheinland Energy and the Fraunhofer-Institut für Solare Energiesysteme ISE, both from Germany.

About IEA PVPS

The IEA Photovoltaic Power Systems Programme (PVPS) is one of the collaborative R&D Agreements established within the IEA and, since its establishment in 1993, the PVPS participants have been conducting a variety of joint projects in the application of photovoltaic conversion of solar energy into electricity. The 31 PVPS members are: Australia, Austria, Belgium, Canada, Chile, China, Denmark, EPIA, European Union, France, Germany, International Copper Alliance, Israel, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Norway, Portugal, SEIA, SEPA, South Africa, Spain, Sweden, Switzerland, Thailand, Turkey, United States.

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Task 13’s Quality Event is
@ Intersolar Munich Conference
Tuesday 30 May – 10:15 – 13:15