

Press Release

International Energy Agency Photovoltaic Power System Programme (IEA PVPS) Publishes New Reports on PV Performance and Grid Integration.

Paris, France, 06 July 2017 – The PVPS programme of the International Energy Agency is proud to announce the publication of three new reports focussing on PV Performances (Task 13) and Grid Integration (Task 14). These reports conclude years of research in these two fields and contribute to enhance the understanding of these two fields necessary for PV development.

PV Performance Monitoring

This report follows seven years of PV system performance and reliability research during which the IEA PVPS programme's Task 13 has delivered a series of reports summarizing their findings relating to best practices for monitoring and lessons learned from the monitored data. The new report published officially in June focusses on the emerging discipline of Statistical Performance Monitoring. These methods use advanced statistical methods to closely monitor PV systems with little or no dependence on sensors. Depending primarily on the data produced by the system itself, these methodologies enable performance monitoring even for the smallest PV systems as well as faster fault indication for all systems, large and small. This will enable system owners and maintenance personnel to quickly ascertain a fault condition, even before the fault occurs with other methods, thereby enabling the systems to fully achieve their designed efficiency for longer periods of time, increasing PV system availability and improving its reliability.

PV Grid Integration – Network Driven Demand Side Management and Local Voltage Support

These two reports are part of a series of Task 14 reports focusing on how to improve the integration of PV into distribution grids. These reports published in June 2017 are focussing respectively on network driven demand side management and local voltage support by distributed generation.

The report on network driven demand side management builds on the change of paradigm in today's grid management practices that leads to new opportunities and challenges for active power balance as well as power system management. DSM is identified as a major opportunity and the title of this report, "Network Driven Demand Side Management", has been chosen to emphasize the collaborative approach between decentral generation, loads, storage systems and the grid.

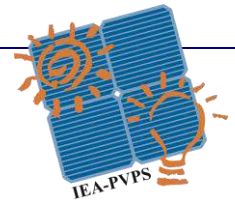
The last "Do It Locally" report focusses on how to effectively manage local voltage in distribution grids with PV in order to maximise the grid's hosting capacity. It shows how combined reactive power control and active power management can further increase the PV hosting capacity and can be a cost-effective measure to integrate a high share of PV generation to the grid. The report presents an overview of advantages and disadvantages for the different reactive power and active power control strategies, which can assist decision-making for the application of local voltage support by DG.

The reports can be found here:

Improving Efficiency of PV Systems using Statistical Performance Monitoring <http://www.iea-pvps.org/index.php?id=427>
Network Driven Demand Side Management <http://www.iea-pvps.org/index.php?id=425>
Do It Locally: Local Voltage Support by Distributed Generation <http://www.iea-pvps.org/index.php?id=424>

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.



IMPLEMENTING AGREEMENT ON PHOTOVOLTAIC POWER SYSTEMS

About the IEA PVPS Task 14

Task 14 was established in 2010 within the IEA PVPS programme in order to study the high impact of PV in the distribution and transmission grids. It has since then clarified significantly the major challenges and continues to propose solutions. The Task is managed by the Austrian Institute of Technology from Austria.

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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