Harmonised Standards for Solar Power Plants and Wind Turbines

Leading European Research Institutes Found the Association DERlab to Strengthen the Distributed Power Generation

Kassel, 17 September 2008. Today in Kassel, Germany, eleven leading European research institutes have founded the association DERlab (which stands for European Distributed Energy Resources Laboratories) as an independent world-class laboratory for the grid-integration of distributed power generation. The association is based at the Institute for Solar Energy Supply Technology (ISET) in Kassel.

Currently distributed power generators such as solar power plants and wind turbines feed their electricity – unregulated for the most part – into the public grid at a low-voltage or medium-voltage level. Their increasing numbers create new challenges, in particular since currently there are neither harmonised standards nor harmonised interconnection requirements or test procedures for grid feed-in in Europe.

In the Network of Excellence DERlab, supported by the European Commission, the research institutes from eleven countries have been developing joint requirements and quality criteria for the interconnection and operation of distributed energy resources since the end of 2005. In addition, they prepare testing and certification methods as well as standards valid all over Europe for decentralised power generation. By founding the association, the project partners have now sealed their further co-operation after the six-year research project is completed: even after 2011 they will continue to jointly use the laboratory infrastructure and exchange research results, personnel and know how. “With our collaboration, we want to ensure the quality of decentralised power generators and coordinate future test procedures at an early stage”, Philipp Strauss, chairman of the board of the new association, said during the first meeting of members on the verge of the 13th Kassel Symposium Energy Systems Technology on September 17th in Kassel.

International White Book on Grid Inverters

Counted among the results of the Network of Excellence is, for example, the preparation of an international white book for research and standardisation needs of grid inverters. These devices are increasingly being used for the integration of distributed power generation and adapt the voltage and frequency of a solar power plant, for example, to grid conditions. To date, international standards do not exist in this area. This is what the DERlab researchers want to change. Their draft concept will be discussed at an international level within the framework of the third DERlab inverter workshop in Nice, France on 9 December 2008.
The European Network of Excellence DERlab

The European Network of Excellence DERlab is co-ordinated by the Institute for Solar Energy Supply Technology (ISET)/Germany. In addition to ISET, the following research institutes and universities participate in DERlab: University of Manchester/UK, KEMA/The Netherlands, Fundación Labein/Spain, Risoe National Laboratory/Denmark, arsenal research/Austria, National Technical University of Athens/Greece, CESI RICERCA SpA/Italy, Commissariat à l’Energie Atomique (the French Atomic Energy Commission)/France, Technical University of Sofia/Bulgaria, Technical University of Lodz/Poland.

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Members of the DERlab association

Foundation assembly of DERlab association in Kassel

Members of the board: Philipp Strauss (Spokesperson), Hubert Fechner, Maria-Luciana Rizzi