



IEA PVPS Workshop – Task 13

PV Performance and Reliability



IEA PVPS, Task 13, Berlin 25./26.09.2008

About Project Management Jülich

- Staff of around 340 colleagues
- 8 divisions
- Offices in Jülich, **Berlin** and Rostock-Warnemünde
- Federal Funding Information Centre
- A largely independent unit within the Research Centre Jülich



Our Services

- Analysis of technological trends
- Development of funding concepts
- **Technical and administrative implementation of funding programmes**
- **Control of supported projects**
- Coordination of European projects
- **Representation in international committees**
- Consultation on national and European funding for research
- Science communications

Fields of Work

- Biotechnology
- **Energy Research**
- New Materials
- Environment and Sustainability
- Marine and Polar Research, Geotechnologies
- Navigation and Marine Technology
- Basic Research in Natural Sciences
- Technology Transfer and Business Start-up
- Regional Technology Platforms
- European Research Management
- **International Cooperation**

PV R&D in Germany

5. Federal Energy Research Programme „Innovation and new Energy Technologies“

Contribute to Modernisation of German Energy supply as well as to economic growth and employment

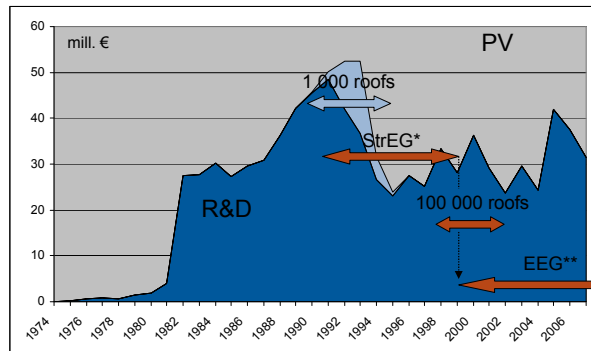
Economical & social accepted energy supply by increasing the contribution of renewable energies e.g. by

affordable, low cost PV power production



<http://www.erneuerbare-energien.de>

PV R&D in Germany



* Act on the Sale of the Electricity to the Grid
** Renewable Energy Sources Act

PV R&D in Germany

~ 120 running Projects, Ø 33.4 mill € funds per year

- Background
 - EU SRA as guideline
 - priority for co-operative research between industry and research institutes
 - German PV R&D Roadmap
- Current “trends” in R&D
 - Crystalline Silicon: high η and low (Si) material consumption
 - Thin film technologies: aSi / μ Si and CIS (both concepts aiming for high η)
 - System technology: grid integration
additional functionalities of PV (power quality, UPS)
 - Recycling, Life Cycle Analysis



IEA PVPS

The mission of the IEA PVPS programme is:
To enhance the international collaboration efforts through which photovoltaic solar energy becomes a significant renewable energy source in the near future.



IEA PVPS



- Global network of expertise
- Broad variety of stakeholders
- Independent, objective, neutral
- Country based, task-shared
- Analysis
- Recommendations
- Communication & interaction

IEA PVPS



Objectives

- To contribute to the cost reduction of their applications
- To increase the awareness of their potential and value
- To foster their market deployment by removing technical and non-technical barriers
- To enhance technology co-operation with non-IEA countries

Target groups

utilities, energy service providers and other public and private users



IEA PVPS

Activities - ongoing

- Task 1. Exchange and dissemination of information on photovoltaic power systems
- Task 8. Very large scale photovoltaic power generation systems in remote areas
- Task 9. Photovoltaic services for developing countries
- Task 10. Urban-scale grid-connected PV applications
- Task 11: PV hybrid systems within mini-grids
- Task 12: PV environmental health and safety

Activities - completed

Task 2. Performance, Reliability and Analysis of Photovoltaic Systems

- Task 3. Use of photovoltaic power systems in stand-alone and island applications
- Task 5. Design and grid interconnection of building integrated and other dispersed photovoltaic systems
- Task 6. Design and operation of modular photovoltaic plants for large scale power generation
- Task 7. Photovoltaic power systems in the built environment

www.iea-pvps.org



IEA PVPS

Task 13

- Follow up of Task 2 - Performance, Reliability and Analysis of PV Systems
- Preparatory Meeting, Milan 2007 – Concept paper on a Task 13 discussed at PVPS ExCo meetings in Ebeltorf and Oslo
- Decision on establishing a Task 13 should be taken at next ExCo meeting

Targets of this workshop

- setting up a draft work plan
- identifying needed resources for carrying out a new Task
- collecting first ideas on how to share responsibilities

