Welcome to PVPS@PVSEC-17

Co-chairs:

Izumi Kaizuka

RTS Corporation, Japan

Greg Watt

Operating Agent, Task 1, IEA PVPS Programme

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- Welcome and acknowledgements
- The IEA, & the IEA PVPS Programme
- Workshop programme

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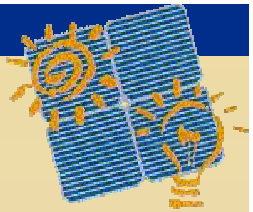
IEA Activities



- International Energy Agency
- Energy security and environment
- Governing Board & CERT
- Working Parties (4) & Implementing Agreements (close to 50)
- Renewable Energy Working Party – 9 IAs including PVPS

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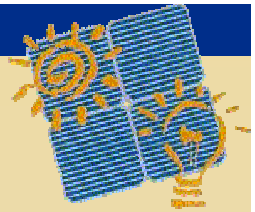
The PVPS Programme
www.iea-pvps.org



- Collaborative R & D agreement established within the IEA since 1993.
- The 21 participating countries are **Australia**, Austria, **Canada**, Denmark, France, Germany, Israel, Italy, **Japan**, **Korea**, **Malaysia**, **Mexico**, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the **United States of America**. The European Commission and EPIA are also members.

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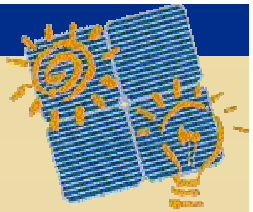
IEA PVPS features



- Regarded as “one of the most active, successful programmes”
- Global network of expertise
- Broad variety of stakeholders
- Independent, objective, neutral
- Guided by all members through ExCo, work carried out on a task-shared basis
- Analyses & recommendations carry weight because of the IEA connection.

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Current PVPS activities (tasks)

www.iea-pvps.org

- Information & communication
- Performance, reliability & analysis
- Very large scale systems
- PV services for developing countries
- Urban scale PV applications
- *Hybrid systems*
- *Environmental Safety & Health*

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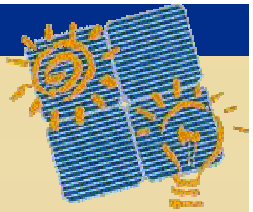
Performance, reliability & analysis



- **12 participating countries / sponsor**
- Provides technical information on PV operational performance, long-term reliability and costs of systems
- Diverse target audience including PV industry, research laboratories, utilities and manufacturers, system designers, installers, standardisation organisations and the educational sector
- Aims to provide performance data for both general assessments of PV system technologies and improvements of system design and operation
- Largely achieved through the development and continuous update of the PV Performance Database, an international database containing information on the technical performance, reliability and costs of PV power systems and subsystems.

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Task 2 presently has the following Subtasks:

- Subtask 1: Enrichment and Dissemination of the Performance Database
- Subtask 5: Technical Analysis and Assessment of PV Systems
- Subtask 6: PV cost over time
- Subtask 7: Dissemination of Task 2 results

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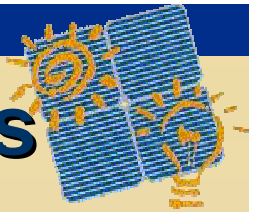
PV services for developing countries



- **11 participating members**
- Mission - through international collaboration, to increase the sustainable use of PV in Developing Countries in support of meeting the targets of the Millennium Development Goals.
- Primary objective - to further increase the overall rate of successful deployment of PV systems in developing countries (by evaluating and analysing experiences, and widespread dissemination of information, regarding PV deployment in developing countries).

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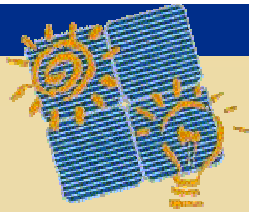

The Task, which commenced its second term in 2004, is divided into the following Subtasks:

- Subtask 20: Support and Co-operation (continuation from Phase One)
- Subtask 40: PV energy services for rural electrification and poverty alleviation
- Subtask 50: Market penetration activities

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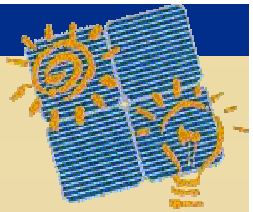
Environmental Safety & Health



- Fostering international collaboration in the areas of safety and sustainability
- Both technical and perception issues need to be addressed
- The overall objectives of this Task are to:
  - Quantify the environmental profile of PV in comparison to other energy technologies (eg through life cycle analysis (LCA) that describes energy, material and emission flows in all the stages of the life of PV)
  - Define and address EH&S and sustainability issues that are important for market growth (through the collective action of PV companies defining material availability and product recycling issues plus communicating “lessons learned” from incidents or potential incidents in PV production facilities).

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The Task has the following subtasks:

- Subtask 1: Recycling of Manufacturing Waste and Spent Modules
- Subtask 2: Life Cycle Assessment
- Subtask 3: EH&S in Manufacturing Facilities
- Subtask 4: EHS Information Dissemination

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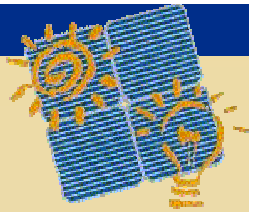
Workshop programme



Activities of IEA PVPS

- Welcome and Introduction - Greg Watt, Australia
- International Industry & Market Trends - Pius Huesser, Switzerland
- Very Large-Scale PV - Keiichi Komoto, Japan
- Urban Scale PV Applications - Christy Herig, USA
- PV Hybrid Systems within Mini-grid - Konrad Mauch, Canada

PV Status in Asia-Pacific Region

- Australia - Wolfgang Meike, Novolta Pty Ltd
- Canada - Sophie Pelland, Natural Resources Canada
- India - Dr. A.K. Barua, Indian Assoc. for the Cultivation of Science
- Japan - Dr. Hiroshi Matsukawa, RTS Corporation
- Korea - Dr Kyung-Hoon Yoon, KIER
- Malaysia - Wei Nee Chen, PTM
- Mexico - Dr. Y. Mastsumoto, Centro de Investigatory de Estudios Avanzados del Mexico
- USA - Dr. Marie Mapes, DoE
- Europe - Dr. Vicente Salas Merino, Univ. Carlos III de Madrid, Spain

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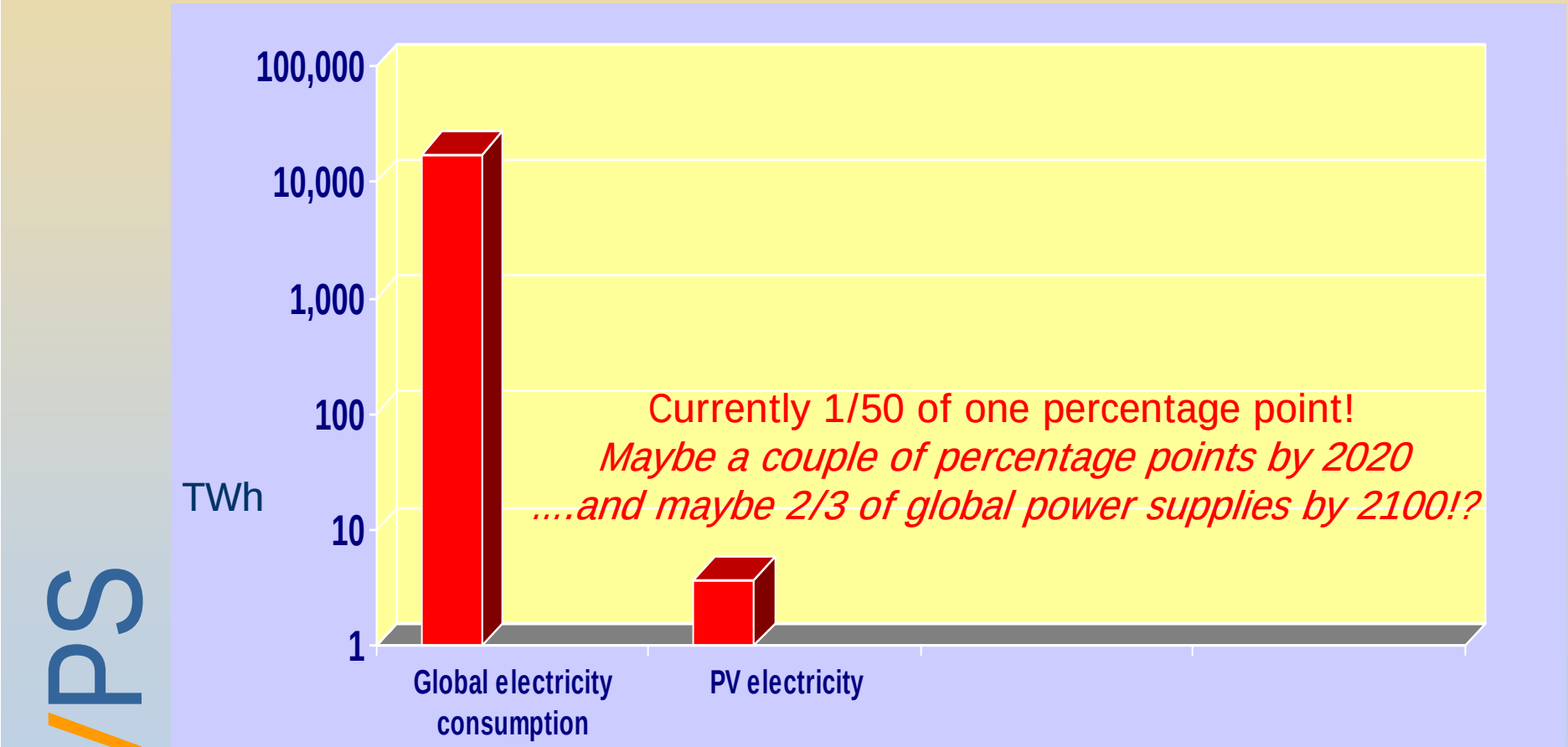
Reality check - where does PV electricity presently fit in the larger energy picture?



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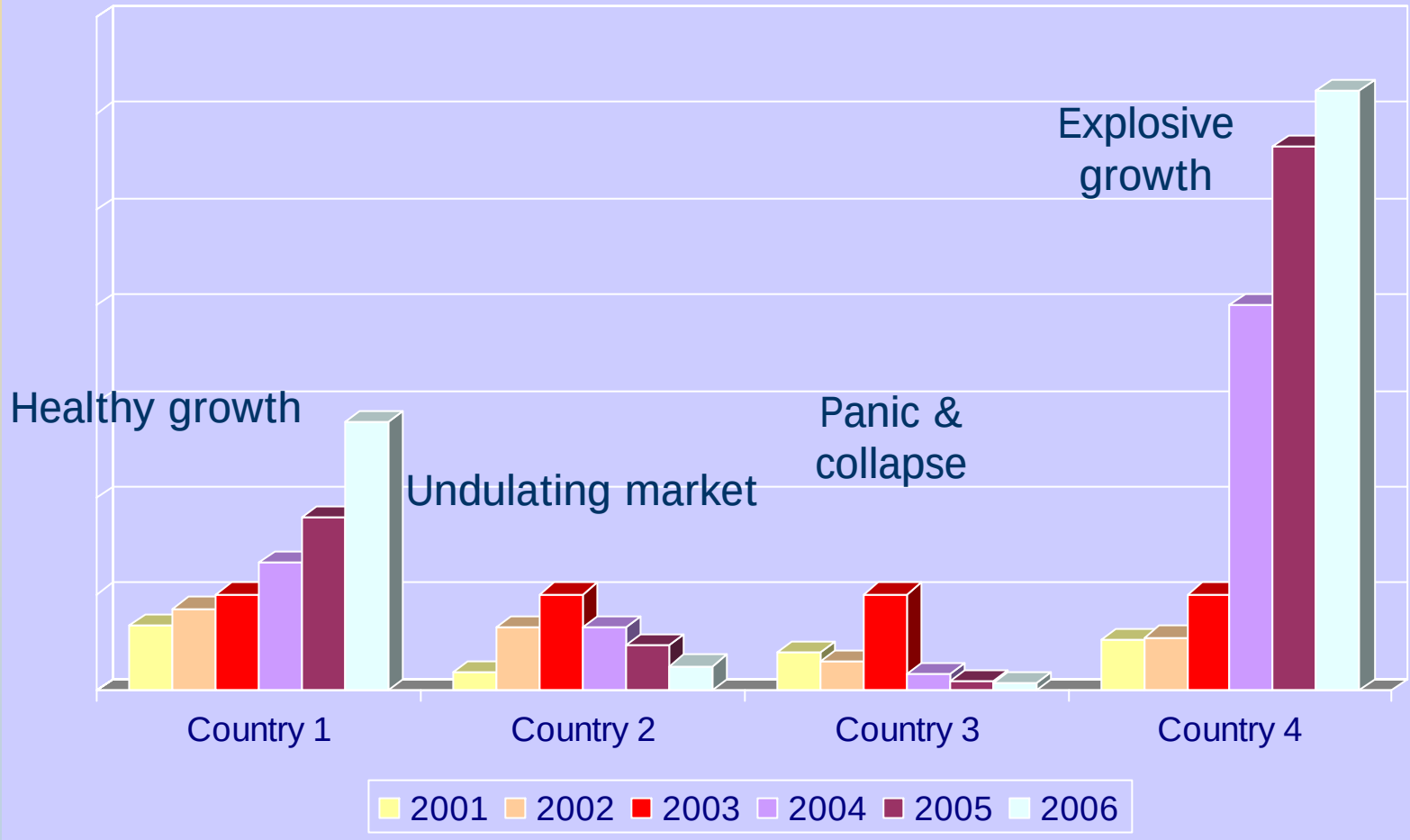
Patterns of annual installed capacity
(values for 2003 set equal)



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