



Introduction to IEA PVPS Task 16

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Webinar “Updates on solar forecasting and other solar resource work of IEA PVPS Task 16” (27.08.2020)



What is IEA PVPS?



- The International Energy Agency (IEA), founded in 1974, is an autonomous body within the framework of the Organization for Economic Cooperation and Development (OECD).
- The Technology Collaboration Programme was created with a belief that the future of energy security and **sustainability starts with global collaboration**. The programme is made up of thousands of experts across government, academia, and industry dedicated to advancing common research and the application of specific energy technologies.



What is IEA PVPS?



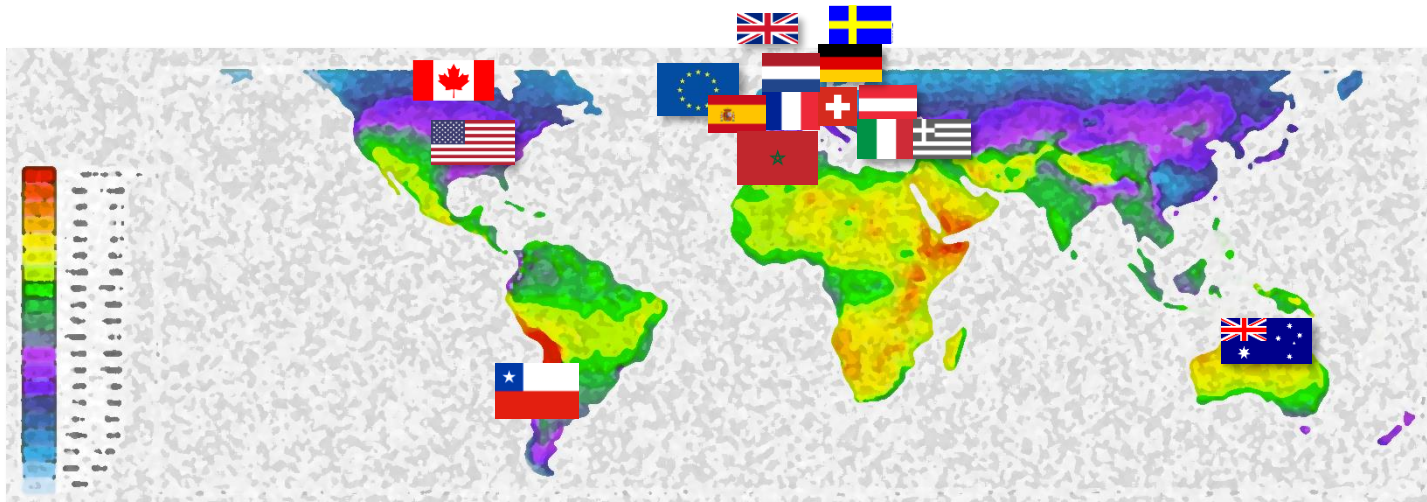
- The IEA Photovoltaic Power Systems Programme (PVPS) is one of the Technology Collaboration Programme established within the International Energy Agency in 1993
- 32 members - 27 countries, European Commission, 4 associations
- *“To enhance the international collaborative efforts which facilitate the role of photovoltaic solar energy as a cornerstone in the transition to sustainable energy systems”*



International Collaboration



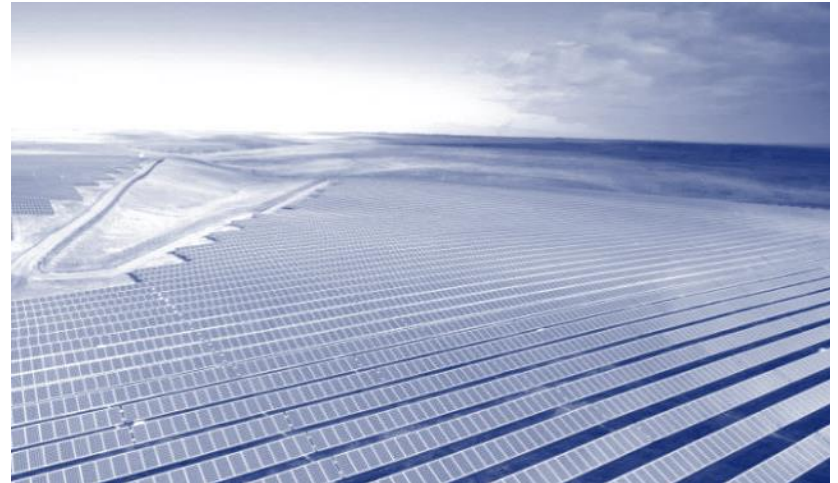
- Universities, research organizations, met services, and service providers
- 21 countries, 55 organizations



Why a Solar Task?



- Solar resources are the fuel of PV, CSP and solar thermal energy
- Big PV and high penetration need high quality of meteorological information
- Finer spatial and temporal resolution of data needed
- Added values
 - Independent benchmarks
 - State of the art descriptions
 - Lower uncertainties lead to lower costs of implementation and to **more PV**



Subtask 1: Resources & Models



- Evaluation of current and emerging **resource assessment methodologies**:
 - Ground based methods (instruments, soiling, spectral)
 - Models for Numerical Weather Prediction and satellite based data
 - Benchmarking framework
- Leads: Manjit Sengupta, NREL, USA and Stefan Wilbert, DLR, DEU



Subtask 2: Bankability (solar resource data)



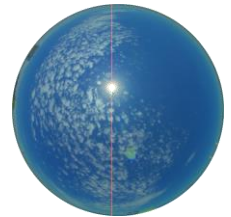
- Enhanced data & **bankable products**:
 - Data quality & format
 - Long-term inter-annual variability
 - Products for the end-users → **this workshop**
 - PV at urban scales (solar cadastres)
 - Bifacial modules
- Lead: Philippe Blanc, Mines Paristech, FRA
- Data seen from user viewpoint



Subtask 3: Forecasting



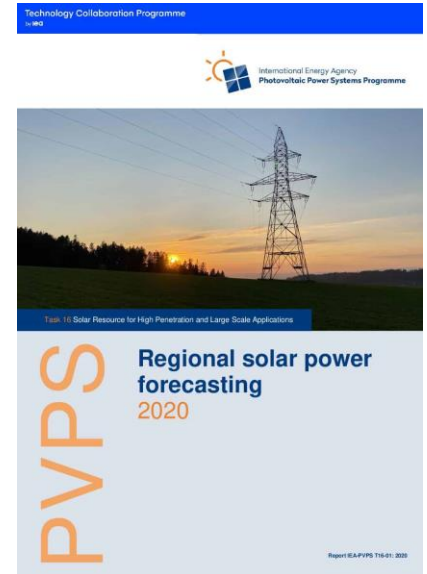
- Evaluation of current and emerging **solar forecasting** techniques
 - Regional solar power forecasting
 - Probabilistic forecasting
 - All sky imager based forecasts
 - Firm PV Power
- Leads: Elke Lorenz, Fraunhofer ISE and Carmen Köhler, p3r Solutions, DEU
- → today's topic



Subtask 4: Dissemination



- Dissemination and outreach
 - Webinars and/or conference presentations
 - Workshops, **Webinars** & Reports (→ Regional solar power forecasting / Juli 2020)
 - Newsletters
- Lead: Jan Remund





- First extension period: 2020 – 2023
- New solar resource handbook in preparation:
 - <https://www.nrel.gov/docs/fy18osti/68886.pdf>
- Publication by the end of 2020



Thank you

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