IEA PVPS Task 13 Workshop at Sapienza University, Rome, 27 February 2025

Bifacial Tracking Systems

Day: **Thursday, 27 February 2025**
Time: **09:00 AM - 17:00 PM (CET)**
Venue: **Sapienza Università di Roma, Via Eudossiana 18, Rome, Italy**
Room: **Sala del Chiostro - Facoltà di Ingegneria Civile e Industriale**
Access: **Open to all registered Webinar participants via Zoom link**

Bifacial Tracking PV systems are growing in popularity for utility-scale photovoltaics because they offer high yields with the lowest levelized cost of electricity in most parts of the world. Over 90% of PV modules sold today use bifacial cells and over 60% of PV system market share uses single axis trackers. The IEA PVPS Task 13 recently published a report: "***Best Practices for the Optimization of Bifacial Photovoltaic Tracking Systems***", which provides a wealth of information about these systems.

The workshop will focus on technical topics related to the report, including how to effectively design, monitor and model the performance of such systems. It will include talks and discussion sessions from experts in IEA PVPS Task 13 well as a variety of industry perspectives from module and tracker manufacturers, monitoring companies, and developers.

Objectives of this workshop are:

- Disseminate the findings from the report and perspectives from industry about how to optimize the performance from bifacial PV tracking systems.
- Provide information of value to PV developers, insurers, investors, customers on best practices for bifacial tracking systems
- Engage in discussion, and solicit feedback, from key stakeholders.

IEA PVPS Task 13 Task Managers: Ulrike Jahn (ulrike.jahn@imws.fraunhofer.de); Laura Bruckman (laura.bruckman@case.edu) and Giosuè Maugeri (giosue.maugeri@rse-web.it)

Agenda:

09:00-09:15
Introduction to this Workshop
by the Workshop organizer (Joshua Stein), by the host (Leonardo Micheli) by Task 13 Manager (Ulrike Jahn)

Part 1: Industry Perspectives on Bifacial PV Tracking Systems

09:15-09:45 Keynote Talk
Insights to the ENEL Innovation lab
Fabrizio Bizzarri, Head of Solar Innovation ENEL Green Power, Italy

09:45-10:00
From Steel to Optimized LCoE: Overcoming Challenges in Single Axis Tracking on a GW Scale
Jürgen Sutterlueti, Gantner Instruments, Austria

10:00-10:15
Trackers in Photovoltaic Applications: Technological Challenges and Innovation Opportunities
Matteo Demofonti, Vice President of Product Strategy & Commercialization at Valmont Solar, Italy

10:15-10:30
Optimizing Bifacial PV Systems: Design and Implementation Challenges with Trackers
Angelo Pignatelli – Head of Engineering and R&D at EF Solare Italia, Italy

10:30-11:00
Moderated Panel Discussion
Joshua Stein, Sandia Labs, or Giosuè Maugeri, RSE

11:00-11:30 *BREAK*

Part 2: IEA PVPS Task 13 Expert Perspectives

11:30-11:45
Monitoring Best Practices for Bifacial Tracked PV Systems
Nicholas Riedel-Lyngskær, Denmark

11:45-12:00
Field Insights on Optimizing Diffuse Light Tracking Performance
Maddalena Bruno, Fraunhofer ISE, Germany

12:00-12:15
PV Tracking Adaptation to the Module Technology and Site Conditions
Kevin Anderson, Sandia National Laboratories, USA

12:15-12:30
Techno-economic Assessment of High Albedo Materials for Bifacial PV
Franco Clandestino, PV Radar, Germany

12:30-13:00
Moderated Panel Discussion
Joshua Stein, Sandia Labs or Giosuè Maugeri, RSE

13:00-14:15 *LUNCH BREAK*

Part 3: Modeling demos/tutorials for bifacial tracking systems

14:15-15:30
Using pvlib-python to model bifacial PV tracked systems
Adam Jensen, Denmark Technical University, Denmark
Kevin Anderson, Sandia National Laboratories, USA

15:30-16:00 *BREAK*

16:00-17:00
PVRADAR hands on Demo: Techno-economic evaluation of albedo enhancers
Franco Clandestino, PV Radar, Germany

17:00
End of Workshop

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