9th Solar Integration Workshop

International Workshop on Integration
of Solar Power into Power Systems

www.solarintegrationworkshop.org

Call for Papers

with Special Topic **STORAGE**

Be one of **50+ speakers** at the next workshop! **150+ participants** expected!

ABSTRACT SUBMISSION
11 MAY 2019
ENDS

Participate in an international forum to:

- Discuss technical and economic issues of integration of solar power
- Share project experiences
- Present innovative ideas and results from ongoing research
- Stimulate interdisciplinary thinking between solar energy and transmission and distribution industries, as well as universities
- Identify subjects requiring more research efforts

▶ **Advisory Committee**

- Thomas Ackermann | Energynautics, Germany
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- Roland Bründlinger | AIT Austrian Institute of Technology, Austria
- Edward Coster | Stedin, Netherlands
- Julian Eggleston | Australian Energy Market Commission, Australia
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- Adrian Timbus | ABB, Switzerland
- Julio Usaola | Charles III University of Madrid, Spain
- Dirk Van Hertem | KU Leuven, Belgium

▶ **Proposed Preferential Topics**

Project Experience

- Experience World-wide project experience related to grid connection of PV/CSP/storage
- World-wide experience with large-scale integration of PV/CSP/storage into power systems
- World-wide experience with balancing power systems with high shares of PV/CSP/storage/variable renewable energy (VRE)
- World-wide PV/CSP/storage/VRE grid integration experience – the TSO perspective

Power System Studies

- World-wide PV/CSP/storage/VRE grid integration studies – methods and results
- PV/CSP/storage/VRE integration study methodologies and data requirements

Distribution Grid Issues

- PV/CSP/storage devices in distribution/weak grids – connection experience and studies
- Protection aspects related to PV/CSP/storage in distribution grids
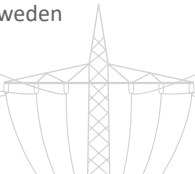
- Voltage control with distributed PV/CSP/storage technology

Transmission Grid/Power System Issues

- PV/CSP/storage performance for power system operation and interconnection with the grid
- Dynamic line rating/online dynamic security assessment and high temperature overhead lines for the integration of PV/CSP/storage VRE
- Transmission grid planning with high shares of PV/CSP/storage/VRE
- Impact of N-1 regulations on power system operation with high shares of PV/CSP/storage/VRE
- Conversion of AC power lines to DC lines to facilitate higher shares of PV/CSP/storage/VRE in power systems
- Power system automation and its benefits for PV/CSP/storage/VRE integration
- Inertia aspects related to high shares of PV/CSP/storage/VRE in power systems

Power Quality Issues

- The impact of PV inverter on power quality
- Power quality aspects with PV and inverter based generation in scenarios with high penetration

Grid Code Issues

- World-wide interconnection standards (grid codes) for solar power plants, for system planning and interconnection studies
- Compliance testing for grid codes – world-wide status and approach

Solar Power Modelling Issues

- Solar plant/storage models for interconnection and planning studies
- Modelling of inverters and solar power plants/storage devices for system integration studies (static and dynamic)
- International modelling standardization activities
- Modelling solar power plants output variability and assessing the impacts

Power System Balancing Issues

- Power balancing methods and solutions, e.g. balance markets, to manage PV/CSP/storage/VRE variability in power systems
- Flexibility of the conventional power plants

- New power system operation tools and methods for balancing PV/CSP/storage/VRE

Ancillary Services

- Ancillary services from solar power plants – world-wide status and experience

Forecasting

- Solar power production monitoring and prediction systems
- State-of-the-art solar power forecasting, scheduling and opportunities for improvement
- Demand forecast with distributed PV/VRE

Hybrid Power Systems

- Design and operation of hybrid systems with utilizing PV/storage devices

Smart Grid/IT Innovations

- Innovative Smart Grid solutions utilizing PV/storage
- IT technology for the integration of PV/storage
- Microgrids and other new ideas to increase the share of PV/storage/VRE in power systems

- Virtual power plants utilizing PV/storage
- Demand response in smart grid context
- New and emerging features of power systems with high share of PV/storage/VRE

Market Issues

- World-wide market design and regulatory issues related to PV/CSP/storage/VRE
- Design concepts for ancillary services with PV/CSP/storage/VRE participation
- Evaluation of rules and mechanisms for integrating PV/CSP/storage/VRE in electricity markets

Regulatory Issues

- Storage solutions and relevant regulatory issues
- Innovative Smart Grid solutions and relevant regulatory issues

Decarbonization of Energy Sectors

- Sector coupling – transportation, heat and electricity sector coupling for decarbonization of energy sectors
- Modelling of sector coupling with focus on solar power

Presentation of Paper

If you would like to present a paper at the workshop please visit our website:

www.solarintegrationworkshop.org

To submit a paper, upload an abstract of maximum 3,000 characters (free style) between **11 February and 11 May 2019**.

Final papers must then be submitted online by **31 August 2019.**

As the conference language is English, all abstracts have to be written in **English**.

Authors will pay a reduced workshop fee.

All participants are responsible for paying their own travel and hotel expenses.

Citation Index Systems & Best Papers

The workshop proceedings will have an ISBN Number and will be submitted to international libraries and organisations who operate citation index systems such as the FIZ – Fach Informations Zentrum Karlsruhe, Elsevier, ETDE, Reuters, Compendex, ThomsonCitation-Index and EBSCO Information Services so that the proceedings are more easily available for academia and industry world-wide.

Similar to previous years, the IET is going to publish the best workshop papers in a Special Edition of the Renewable Power Generation Journal. For the latest publication, from April 2018, visit: http://tiny.cc/IET

▶ **The Solar Integration Workshop is part of the Grid Integration Week:**

▶ **Website & Contact Details:**

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▶ **Organizer:**

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