



BERLIN
ENERGY
TRANSITION
DIALOGUE
2019

Energiewende – New Horizons



DCSP

German Association for
Concentrated Solar Power



Energy and Heat: Combining CSP, PV and Storage Technologies – A holistic approach for making the most of solar energy

Within the frame program of the Berlin Energy Transition Dialogue 2019
<https://www.energiewende2019.com>

BSW, DCSP and BVES cordially invite/welcome you to our joint workshop

11. April 2019, 9 am – 4 pm, Berlin

Location: Quadriga Forum (Werderscher Markt 15), Room: Atrium (ground floor) and Friedrichswerder (first floor), 10117 Berlin

If you are interested in joining our workshop, please send an email with your contact details to betd@deutsche-csp.com

While PV and Solar Thermal have very low energy generation costs, CSP has recently witnessed a dramatic cost decrease. At a price of around 6 €ct/kWh for systems with integrated storage the technology can now complement fluctuating renewables in sun-belt countries. All three technologies can be used to provide electricity or heat / cooling for different applications or temperature levels at competitive costs.

The leading German associations for PV, CSP and energy storage technologies cordially invite you to a workshop on latest developments and trends in the framework of BETD.

The workshop will focus on comprehensive solar solutions, especially on the combination of PV, CSP, solar thermal, solar-biomass hybrids and new storage technologies. It will provide an overview of best practice reports on actual projects at allow a stable, low cost energy supply in sun-belt countries.

Two panels will inform the audience about:

- Costs for reliable and flexible solar power from PV-CSP hybrids and advanced storage technologies
- Solar process heat for industries and storage



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Program:

09:00 **Welcome Note**
David Wedepohl – Managing Director International Affairs, BSW-Solar
Dr. Joachim Krüger – Chairman of the Board, DCSP
Urban Windelen – Executive Director, BVES

Panel 1 on:

PV, CSP, Hybrids and Storage: Innovation and Lessons Learned

09:30 **PV market trends, integration & extraordinary tenders in Germany**
By: Jan Knaack, Senior Project Manager, BSW-Solar

09:50 **PV-CSP, experience from project developer and EPC side**
By: Oliver Baudson, Managing Director, TSK Flagsol GmbH

10:10 **Innovations of Storage Technologies: “Flexible Sector Coupling”**
By: Dr. Andreas Hauer (ZAE), Vice-President BVES

10:40 **Coffee Break**

11:00 **“Advanced Thermal Energy Storage Concepts”**
By: Prof. Dr. Robert Pitz-Paal, Deutsches Zentrum für Luft- und Raumfahrt DLR

11:20 **“Interaction for Optimization between Water-Steam Cycle and Final Design / size of TES and SGS in CSP at one/two example(s)”**
By: Ingo Assmann, Power&Gas Division, PG SC IST S PRO, Siemens AG

11:40 **Q & A / Discussion**

12:00 **Lunch**



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Panel 2 on: Solar Process Heat for industries, Batteries and Thermal storage

13:15 **Value beyond price: understanding costs and system value of STE/CSP**

By: Marcel Bial, Secretary General ESTELA

13:35 **CSP-Biomass Hybridization Solar Process Heat**

By: Dr. Joachim Krüger, Managing Director Solarlite GmbH

14:00 **PV & CSP Hybrid with Thermal Storage - a Future Energy Mix**

By: Martin Schlecht, Managing Director Suntrace GmbH

14:30 **Tbd**

By: (tbd)

15:00 **"PV Integration with Battery: Off- and Ongrid Solutions"**

By: Lars Stephan – Senior Manager Regulatory Affairs Agrekko

Networking on the floor

and discussion, experience exchange

16:00 **End of the workshop**



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About BSW-Solar and DCSP

German Solar Association (BSW-Solar)

The association's mission is to support its members operating around the world in accessing and developing a global market for solar power, solar heat and solar storages. BSW-Solar drives the implementation of solar business models and is a treasure trove of first-hand information, networks and service, unrivalled in its experience with solar energy.

German Association for Concentrated Solar Power (DCSP)

was established in September 2013. Among the members are consulting and engineering companies, manufacturers of components, owners and operators of power plants as well as research institutions. The portfolio covers the whole CSP value chain. The association's objective is to join forces and interests of the market players in Germany and enhance their chances in international markets. In their latest policy paper, DCSP explains the social, economic and environmental opportunities of a global expansion of CSP and how the federal government and parliament can make their contributions to utilize these opportunities.

German Energy Storage Association (BVES)

The BVES is the strong voice of Germany's energy storage industry. As an industry association that is open to all various kinds of energy storage technologies, we represent the whole spectrum: electric, thermal, chemical and mechanical energy storage in the energy sectors electricity, heat and mobility. The BVES bundles forces to facilitate the communication between Germany's energy storage representatives and the national as well as international political levels, the administrative levels, science and the public. We also routinely work together with the standard-setting organizations in Germany on the technical issues that are of main importance for the energy storage industry.