

Members



DCSP

German Association for
Concentrated Solar Power

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**Concentrated Solar Power –
the solution for a sustainable energy mix**



Solar electricity competitive to power from gas

Solar thermal electricity was contracted in 2017 in Dubai for 7.3 \$cents/kWh. This plant will combine a 200 MW tower system with a 15 hour thermal energy storage and three times 200 MW parabolic trough systems with more than ten hours of thermal storage. It will start operation in 2020. The plant will collect the sun during day time and charge the thermal storage. Electricity is generated by the power block in case of sandstorms or during the night using the high temperature heat out of the storage. During sunshine hours, power is produced by a 800 MW PV power plant at the same site at a contracted price of 3\$cents/kWh.

Thus, Dubai can rely on reliable solar power supply day and night for an average price below 6\$cents/kWh without any CO2-emissions. For sun-rich countries that need to import gas from the world market this is a competitive and clean option at a fixed electricity price for the next 35 years. It also ensures a high share of local value creation.

The combination of CSP & PV is the key for reliable, clean and low-cost electricity around the clock

CSP Energy & German Technology

A Perfect Match

Concentrated Solar Power (CSP) is a carbon-free source of electricity that is best suited to areas in the world with strong sun irradiation: Southern Europe, Northern Africa & the Middle East, South Africa, India, China, Southern USA and Australia.

CSP plants range between some MW and 400 MW. Their product is steam. To drive a turbine for electricity production. To enhance oil recovery. To drive industrial processes.

This is unique with solar: CSP can be stored – because it is thermal. It works at night and during sandstorms. CSP can boost local economies by creating jobs: The local content of work can reach more than 75%. Good news: It is bankable.

Deutsche CSP is the German Association for Concentrated Solar Power. Its members unite to deliver high class technology to the world. From research to distribution – including projects development, technical consultancy and EPC.

Around the World

Mega Projects

Morocco – Midelt

2 x 200 MWe CSP-PV-Hybrid-Power Plant
(Further site at Tata is under development)

Egypt – West Nile

50-100 MWe CSP Power Plant

Kuwait – Al Abdaliyah

280 MWe ISCC with 50 MWe CSP Solar Field

UAE / Dubai – DEWA

800 MWe CSP Power Plant

South Africa – Round 4.5

Several Projects (e.g. Redstone, Kathu II, Metsimatala)

Namibia – Arandis

100-150 MWe CSP Power Plant

Saudi Arabia – New Issue of a 9.5 GWe RE (PV, CSP, Wind)

Current Projects:

- (Waad al Shamal, ISCC (total 1,000 MWe) with 50 MWe CSP Solar Field)
- Duba, ISCC (total 600 GWe) with 50 MWe CSP Solar Field
- Taibah, ISCC (total 3 GWe) with 180 MWe CSP Solar Field

China

20 CSP Projects announced with a capacity of 1.4 GWe