



FRENELL is a German technology company specialized in the manufacture and turnkey delivery of concentrated solar power (CSP) plants with integrated energy storage systems based on its Direct Molten Salt (DMS®) technology.

Cost competitive Solar Power on Demand

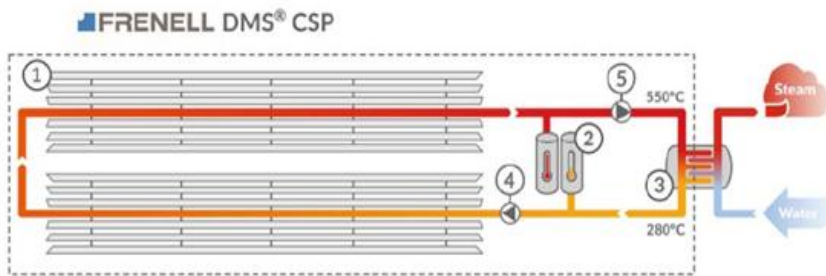
- FRENELL DMS® plants can deliver demand-driven electricity for as little as 0.4 – 0.8 RMB/ kWh
- Due to its integrated energy storage, FRENELL DMS® plants can deliver solar power on demand fully flexible and independent of intermittent solar resource.

Plain and Simple

- FRENELL DMS® plants contain a single circuit system, using molten salts both as heat transfer and storage medium. Thermal power can be generated at temperatures of up to 550°C.
- The modular “Solar Field Loop Design” of a FRENELL DMS® plant guarantees low construction risk and high flexibility for customized solutions
- The FRENELL collector is based on the linear Fresnel principle, providing an efficient and low-cost technology

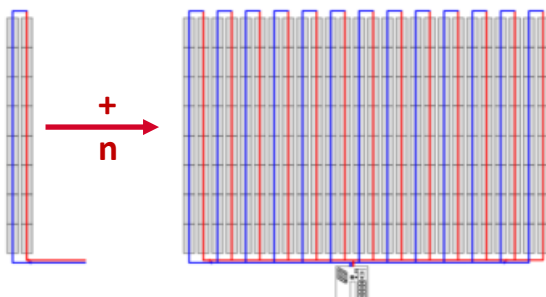
Key Figures for a 100 MW FRENELL DMS® plant in China

Parameter	Value
Technology	FRENELL DMS®
Annual DNI	1,800 kWh/m ² /year
Nominal capacity	100 MW _{el}
Mirror area	1,580,000 m ²
Land usage	3,100,000 m ²
Storage full load hours	14 hr
Net annual electric energy yield	320 GWh _e
Total investment cost estimate	2,650 M RMB
Annual cost estimate	32 M RMB
Unleveraged project IRR	5 %
Project lifetime	25 a
Levelized cost of electricity	0.8 RMB/KWh _e



1. Solar Field
2. Thermal Energy Storage
3. Salt/Water Heat Exchanger
4. Cold Salt Pump
5. Hot Salt Pump

FRENELL DMS® plants can be easily extended by simply adding multiple solar field loops – just “more of the same”



Proven technology

- The FRENELL CSP technology has been successfully applied in three commercial projects with a total thermal capacity of more than 150 MW since 2009.
- The FRENELL DMS® collector has been thoroughly developed and tested over the last three years.

“PE 2” 30MW_e CSP plant in Spain. Largest application of proprietary FRENELL technology



For more detailed information about the FRENELL offering please refer to the FRENELL Whitepaper on our website