sener
XEnergy

Parabolic trough plant Bokpoort

SENER XENERGY / XRENEWABLE AND LOW-CARBON SOLUTIONS GENERATION / XSOLAR / SOUTH AFRICA

PARABOLIC TROUGH PLANT BOKPOORT

Cliente: Acwa Power

País: South Africa

Bokpoort 50 MW project is the first Concentrating Solar Power (CSP) plant in South Africa using a large capacity of storage (slightly above 9 hours), focused on 24/7 production during Spring and Summer while having the capacity of Peak production during Autumn and Winter seasons. This design results in a facility with a very high annual capacity factor, actually higher than 50%.

- Project data:
- Technology: Parabolic trough collector, SENERTrough®.
- Generation capacity: 50 MWe net power.
- Thermal storage capacity: 1,300 MWth
- Thermal storage capacity (equivalent hours of turbine operation): 9 h.
- Number of loops: 180.
- Total reflective area: 588,600 m^2.
- Surface area of the solar field: 350 ha.

- Heat transfer fluid: HTF.
- Contract type. EPC.
- Electricity delivery to 54,000 household.
- CO_2 emission savings: 57,000 tons/year.
- Consortium: SENER, Acciona, TSK & Crowie.