

Parabolic trough plant Ilanga 1



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

*PARABOLIC TROUGH
PLANT ILANGA 1*

**Cliente: KAROSHOEK SO-
LAR ONE Ltd**

País: South Africa

Parabolic trough plant Ilanga 1, Upington, Northern Cape, South Africa.

Ilanga 1 is a 100 MWe thermosolar plant with 266 loops using SENERtrough® parabolic troughs designed and patented by Sener and with a thermal storage capacity of 1,250 MWth, five hours, thanks to the use of a molten salt storage system. Once in operation, it will be able to supply electricity to over 86,000 homes.

Sener is taking part in the turnkey construction of the plant, carrying out the engineering work, purchase management, building and start-up, as well as forming part of the O&M consortium (Operation and Maintenance) which will operate and maintain the plant once it enters into operation.

- Project data:
- Technology: Parabolic trough collector, SENERtrough®.
- Generation capacity: 100 MWe net power.

- Nominal solar field thermal output: 463.7 MWt.
 - Thermal storage capacity: 1,250 MWht.
 - Thermal storage capacity (equivalent hours of turbine operation): 5 h.
 - Number of SCA/loops: 1,064/266.
 - Total reflective area: 869,800 m².
 - Surface area of the solar field: 335 ha.
 - Heat transfer fluid: HTF.
 - Contract type: EPC + O&M.
 - Electricity delivery to 86,000 household.
 - CO₂ emission savings: 90,000 tons/year.
 - Consortium: SENER, COBRA & EMVELO.
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