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## **Construction begins on 100MW Kathu solar project**

Construction of the Kathu Solar Park in the Northern Cape began earlier this month with a ground breaking ceremony attended by project shareholders, and various other stakeholders, local officials and guests.



Kathu site in Northern Cape

The Kathu 100MW Concentrated Solar Power project is jointly owned by <u>ENGIE</u> (48.5%), the <u>Public Investment</u> <u>Corporation</u> (PIC), on behalf of the Government Employees Pension Fund (GEPF) (17.5%), the <u>SIOC Community</u> <u>Development Trust</u> (SIOC CDT) (12.5%), the <u>Lereko Metier REIPPP Fund Trust</u> (11.5%), Investec Bank Limited (7.5%), and the Kathu LCT Trust (2.5%).

Kathu Solar Park was awarded preferred bidder in the 3.5 round of the Renewable Energy Independent Power Producer Procurement Program (REIPPPP) led by the South African Department of Energy (DOE). In May 2016, Kathu Solar Park signed a 20-year Power Purchase Agreement (PPA) with Eskom. The PPA signing makes it possible to start construction which is expected to be completed in the fourth quarter of 2018.

The project is funded by a mix of debt and equity. The debt is funded by Rand Merchant Bank, Nedbank Capital, ABSA Capital, Investec and the Development Bank of South Africa.

## Six million tonnes of CO2

It is estimated that the Kathu Solar Park will save six million tonnes of CO2 over 20 years and will further promote local economic development through various projects as part of its economic development objectives such as sourcing of certain services from local entrepreneurs in the John Taolo Gaetsewe District Municipality situated in the Northern Cape, the commitment to spend part of turn-over of the project on qualifying social and economic development once operational, and having the local community benefit through the community trust which has an indirect equity stake in Kathu Solar Park.

ENGLE's Willem Laenen explains, "Eskom is particularly interested in receiving additional electrical power during 'peak' times, for instance during the evening hours, when electricity consumption is highest. CSP technology with molten salt storage can generate electricity at its maximum design capacity during the whole of the evening peak and thereby assist Eskom greatly by delivering power exactly when this power is needed."

The <u>SENER</u> and <u>Acciona</u> consortium was appointed as EPC contractor by Kathu Solar Park to provide engineering, procurement and construction services for the project. Construction started on site in May 2016 and is due for completion in the fourth quarter of 2018. Approximately 500 jobs, with a peak of 1200, will be created during the construction phase.

## Parabolic trough technology

SENER designed and patented the parabolic trough technology, equipped with a molten salt storage system, that allows 4.5-hours of thermal energy storage and thus limits the intermittent nature of solar energy and will be able to supply electricity to 179,000 homes.

"SENER's patented Concentrated Solar Power solution; SENERtrough2 is a world leading cost-efficient solar thermal power innovation. It utilises a molten salt heat storage system that allows for continued power generation when the sun does not shine – it is reliable, flexible and dispatchable with reduced carbon emissions," said Siyabonga Mbanjwa, SENER regional managing director in Southern Africa.

Ramón Jiménez, CEO of Acciona Industrial, highlighted the importance of this project for the sustainable development of the region: "We are committed to meeting all quality, environmental, health and safety standards for the project. Both the client and the local community demand high levels of social action, and thanks to our expertise we are confident we will achieve these objectives with excellence."

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