



## WHAT IS A SOLAR PARK?

A Solar Park is a concentrated zone of solar development that includes thousands of megawatts ("MW") of generation capacity. One or more pieces of land in close proximity are designated and pre-permitted as a Solar Park. It also has the potential of decreasing the cost of solar power significantly due to economies of scale and use of locally manufactured components.

## BACKGROUND

On the 09th October 2009 the Department of Energy (DoE) signed a Memorandum of Understanding (MoU) with the Clinton Climate Initiative (CCI) to prepare a pre-feasibility study assessing the potential of developing one or more Solar Parks in South Africa. The collaboration produced a Solar Park Pre-feasibility study report which was approved by the Department in May 2010 and later endorsed through Cabinet Approval. The report concluded that solar power can be deployed in South Africa in large quantities over the next decade at costs that become competitive with coal-fired power, providing the country with clean and secure energy to help meet its growing demand.

## THE PRE-FEASIBILITY

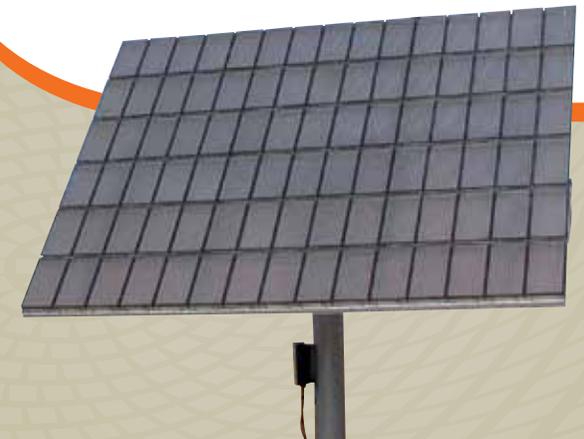
The pre-feasibility analysis confirmed that the Northern Cape has excellent and consistent sun; flat and sparsely-populated land; the ability to connect to the electricity grid at multiple points; water available from the Orange River; and developed highway system and Upington airport. Numerous regions of the province meet most, if not all, of the key criteria listed here. Based on the positive outcome of the pre-feasibility study a decision was taken to continue with a full feasibility study which has since started in June 2010. The pre-feasibility study estimated; that a 5 GW Solar Park that could be constructed over nine years. This could result in the creation of approximately 12,300 average annual direct construction jobs



## THE FEASIBILITY STUDY

In line with the 2003 directive for CEF (SOC) Ltd to catalyse the Renewable Energy market in the country; in early 2011, the Minister requested CEF (SOC) Ltd to lead the South African Government in conducting the Feasibility Study for this initiative including engaging all interested and affected parties on this project.

The Project Team operates under oversight of the Programme Steering Committee (PSC) chaired by the DoE. Key decisions on this initiative are made in line with the CEF/DOE Policies and an Implementation Agreement. The overall objective is to complete a study that is credible to the global solar industry and meets all international standards notwithstanding all the national legislative imperatives prior to Cabinet's criteria for approval.



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# NORTHERN CAPE SOLAR PARK CORRIDOR

INFORMATION BROCHURE

## BENEFITS OF A SOLAR PARK

- Job creation
- Localisation of Solar technology
- Reduction of developmental cost of IPP's
- Reducing electricity tariffs for Solar
- Skills development
- Carbon Emissions reduction

## WHO ARE THE ROLE PLAYERS?

In addition to the DOE, CEF and the Northern Cape Provincial Government, other key Government departments and organisations participate in the project through the Project Steering Committee (PSC) such as:

- //Khara Hais Local Municipality and Siyathemba Local Municipality
- Economic Development Department
- National Treasury
- Department of Environmental Affairs
- Department of Public Works
- Department of Science and Technology
- Department of Water Affairs and Forestry
- Department of Trade and Industry
- Department of Public Enterprises
- Department of Rural Development of Land Reform
- SALGA
- All relevant Provincial Departments
- Clinton Climate Initiative
- ESKOM
- South African National Energy Development Institute (SANEDI)
- Development Bank of Southern Africa
- Industrial Development Corporation
- South African Weather Service

## KEY PROJECT DRIVERS INCLUDE AMONGST OTHERS:

- Security of energy supply
- Energy access
- Electricity price escalation
- Demand management
- Diversity of supply
- Poor and economic regulation
- Skills and capacity development
- Climate change response measure

## SCOPE OF FEASIBILITY STUDY AMONGST OTHERS INCLUDE:

- Solar electricity generation
- Framework for Solar Park Development
- Technical – economic evaluation
- Industrial development and localisation
- Financial Framework
- Socio-economic benefits for the Northern Cape region
- Co-ordination with Renewable Energy Solar Projects in Upington and Prieska areas

## SCOPE OF GEOTECHNICAL AMONGST OTHERS INCLUDE:

- Determine depth to bedrock and its properties
- Determine soil characteristics across the site
- Determine the surface and groundwater regimes
- Advise on typical foundation solutions
- Locate, test and quantify suitable local materials for earthworks

## SCOPE OF ENVIRONMENTAL IMPACT ASSESSMENT

**The EIA must cover amongst others the following areas:**

- Public consultation
- Fauna /Flora
- Ecology
- Heritage Impact study
- Visual Impact study
- Soil & agricultural potential
- Surface and ground water impact study
- Impact of Avifauna
- Social Impact
- Noise Impact
- Traffic Assessment study

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