

JUNE 2017

**ENVIRONMENTAL IMPACT ASSESSMENT
PROCESS**

CONSTRUCTION OF THE PROPOSED

**BRYPAAL SOLAR POWER (PV)
PROJECT AND ASSOCIATED
INFRASTRUCTURE**

NORTHERN CAPE

**BACKGROUND INFORMATION
DOCUMENT**



A commercial photovoltaic (PV) solar energy facility (known as Brypaal Solar Power (PV) Project) as well as all associated infrastructure are proposed to be developed on a remainder of Portion 4 of the farm Brypaal 134, located approximately 60 km south south-west of Kakamas in the Kai !Garib Local Municipality (ZF Mgcawu District Municipality) in the Northern Cape Province. The net generating capacity of the proposed PV solar energy facility will be up to 100 MW.

The purpose of the proposed PV facility will be to evacuate the generated power into the Eskom electricity grid.

AIM OF THIS BACKGROUND INFORMATION DOCUMENT

This document aims to provide you, as an interested and/or affected party (I&AP), with:

- An overview of the proposed Brypaal Solar Power (PV) Project.
- An overview of the EIA process (including a Scoping Phase and an EIA Phase) and the specialist studies being undertaken to assess the potential impacts, both positive and negative of the proposed project.
- Details of how you can become involved in the EIA process, receive information, or raise issues which may concern or interest you.

OVERVIEW OF THE PROPOSED PROJECT

The project is to be developed on a remainder of Portion 4 of the farm Brypaal 134, located approximately 60 km south south-west of Kakamas in the Kai !Garib Local Municipality (ZF Mgcawu District Municipality) in the Northern Cape Province. The proposed site is preferred by virtue of climatic conditions, relief and aspect, the availability of land, and proximity to a viable point of connection to the National grid. Some of the existing renewable energy facilities in the area includes the Aries Solar Plant (approximately 50 km south-east of the proposed site) and the Abengoa Kaxu and Xina Solar Facilities as well as the Konkoonsies Solar Plant (approximately 82 km north-west of the proposed site).

The PV facility is proposed to include several arrays of photovoltaic solar panels with a concentrated capacity of up to 100 MW. The development footprint is anticipated to be approximately 300 hectares.

Infrastructure associated with the facility will include

- The Module Mounting structures 2 tier;
- String Inverters – 60KVA;
 - o on construction site;
 - o Administration offices, security- and guard houses, as well as workshop areas for storage and maintenance;
 - o Cabling between project components;
 - o Assembly plant and laydown area.
- PV Modules – 250 WP;
- Meteor stations;
- Power reducer Boxes;
- Power Plant Controllers;
- Cluster Controllers;
- LV Substations;
- MV Substations;
- Associated infrastructure including:
 - o Fencing around the related infrastructure and development footprint;
 - o All access roads, access points, as well as distribution roads and crossings;
 - o The temporary housing facilities on construction site;
 - o Administration offices, security- and guard houses, as well as workshop areas for storage and maintenance;
 - o Cabling between project components;
 - o Assembly plant and laydown area.

Site-specific studies will be undertaken to assess the localised impact of the proposed development, and in order to delineate areas of sensitivity within the farm portion 4 of the Brypaal Farm 143. Once the constraining environmental factors have been determined, the layout of the proposed facility can be finalised, and assessed in detail in the EIA Phase.

USE OF SOLAR PV TECHNOLOGY AS THE RENEWABLE ENERGY TECHNOLOGY FOR THE PROJECT

Solar energy facilities, such as those using PV panels are the energy from the sun to generate electricity through a process known as the Photovoltaic Effect. This effect refers to photons of light colliding with electrons, and therefore placing the electrons into a higher state of energy to create electricity. The Solar PV facilities will comprise of the following components:

The Photovoltaic Cell

Individual PV cells (static or tracking) are linked and placed behind a protective glass sheet to form a photovoltaic panel

The Inverter

The photovoltaic effect produces electricity in direct current. Therefore an inverter must be used to change it to alternating current.

The Support Structure

The PV panels will be attached to a support structure up to 6 m off the ground set at an angle so to receive the maximum amount of solar radiation.

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

In terms of the EIA Regulations published in terms of Section 24(5) of the National Environmental Management Act (NEMA, Act No. 107 of 1998), Brypaal Solar Power (PV) Project require authorisation from the National Department of Environmental Affairs (DEA) in consultation with the Northern Cape Department of Environmental and Nature Conservation (DENC) for the construction and operation of the proposed solar energy facility. In terms of sections 24(5) of NEMA, the EIA Regulations, 2014 of GN R324-327 (as amended 2017); a Scoping and EIA are required to be undertaken for this proposed project. In order to obtain authorisation, comprehensive, independent environmental studies must be undertaken in accordance with the EIA Regulations. Separate Scoping and EIA processes will be undertaken for each application.

An EIA is an effective planning and decision-making tool. It allows the potential environmental consequences resulting from a proposed activity to be identified and appropriately managed during its establishment and its operation. It provides the opportunity for the applicant to be forewarned of potential environmental issues, and allows for resolution of the issues reported on in the EIA report as well as dialogue with I&APs.

Boscia Environmental Solutions has been appointed as the independent environmental consultants to undertake the required Scoping and EIA to identify and assess all the potential environmental impacts associated with the proposed project, and propose appropriate mitigation and management measures in an Environmental Management Programme (EMPr). As part of these environmental studies, I&APs will be actively involved through the public involvement process.

WHAT ARE THE POTENTIAL ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT?

The project development site will be assessed by specialists to identify the potential for environmental impacts. Specialist studies that are to be conducted include the following:

Fauna and Flora – In order to determine the potential impact of the construction and the associated disturbance of vegetation on the ecology and biodiversity of the site.

Soil and agricultural assessment as well as Land use and Land capability – In order to determine the significance of loss of agricultural land and impacts relating to soil degradation and erosion.

Heritage sites and palaeontology – In order to determine the potential of disturbance to or destruction of heritage sites and fossils during the construction phase.

Solar and weather review – For insight on strategic decision making relating to development of solar projects.

Topography assessment – Decision making for design and assessment of limitations.

Geology – In order to determine the potential impact of the construction and associated disturbances on the geology.

Geohydrology and Surface water Assessment – In order to determine the potential of disturbances to or the destruction of underground water resources as well as surface water and drainage systems.

Visual aesthetics – To determine the potential impact that the construction of the facility may have on the aesthetics within the area.

The EIA process will be separated into two distinct phases:

- Scoping Phase Study – A desk-top study wherein potential issues associated with the proposed project are identified and those issues requiring further investigation through the EIA Phase are highlighted.
- EIA Phase Assessment – A detailed study of the potential significant impacts identified in the Scoping Phase. Specialist studies will be undertaken in order to determine the nature and significance of the potential impacts. Practical and achievable mitigation measures will be recommended in order to minimise potential significant impacts identified. These recommendations will be included within an Environmental Management Programme (EMPr).

PUBLIC PARTICIPATION PROCESS

The sharing of information forms the basis of the public participation process and offers you the opportunity to become actively involved in the EIA Process from the outset. Comments and inputs from I&APs during the Scoping and the EIA Phases are encouraged in order to ensure that potential impacts are considered within the ambit of the study.

The sharing of information forms the basis of the public participation process and offers I&APs the opportunity to become actively involved from the outset of the EIA process. This aims to ensure that:

- Information containing all relevant facts in respect of the application is made available to I&APs for review;
- Participation by potential I&APs is facilitated in such a manner that I&APs are provided with a reasonable opportunity to comment on the application; and
- 30 day review periods are provided for I&APs to comment on the findings of the Draft Scoping and Environmental Impact Assessment Reports.

The public participation process was designed to satisfy the legislative requirements of the NEMA EIA Regulations, 2014. The elements relating to the public participation process that are required as per Chapter 6 Regulations 40 – 44 of GN R324-327 (as amended 2017) are applicable and outlined as follows:

- The manner in which potential Interested and Affected Parties (I&APs) were notified of the application for authorisation, and that a public participation process was mandatory. This includes notice boards, given written notice, information documents and letters to landowners and I&APs, and placing advertisements in the media (*Regulation 40 – 41*).
- Opening and maintaining a register, which contains the names and addresses of I&APs. These include all persons who have submitted comments, are Organs of State who have some form of jurisdiction in the assessment process, are impacted or adjacent landowners and occupiers as well as all those who have requested that they be placed on the project database as registered I&APs (*Regulation 42*).
- Registered I&APs are entitled to comment, in writing, on all written submissions made to the competent authority by the applicant or the EAP managing the application, and to bring to the attention of the competent authority any issues, which that party believes may be of significance when the application is considered for authorisation (*Regulation 43*).
- The comments of registered I&APs must be recorded and included in the reports submitted to the competent authority (*Regulation 44*).

YOUR RESPONSIBILITIES AS AN I&AP

In terms of the EIA Regulations, your attention is drawn to your responsibilities as an I&AP:

- In order to participate in this EIA process, you must register yourself on the project database.
- You must ensure that any comments regarding the proposed project are submitted within the stipulated timeframes.
- You are required to disclose any direct business, financial, personal or other interest which that you may have in the approval or refusal of the application for the proposed solar energy facility.

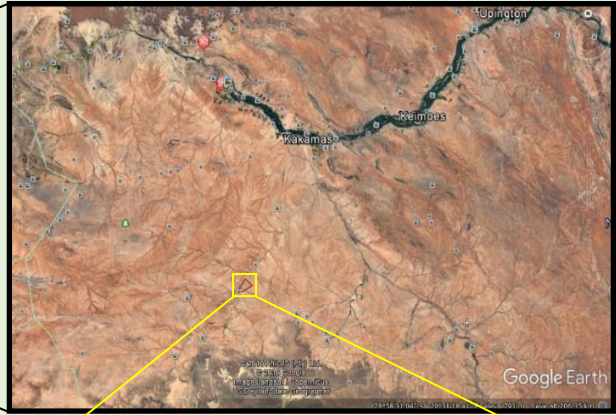
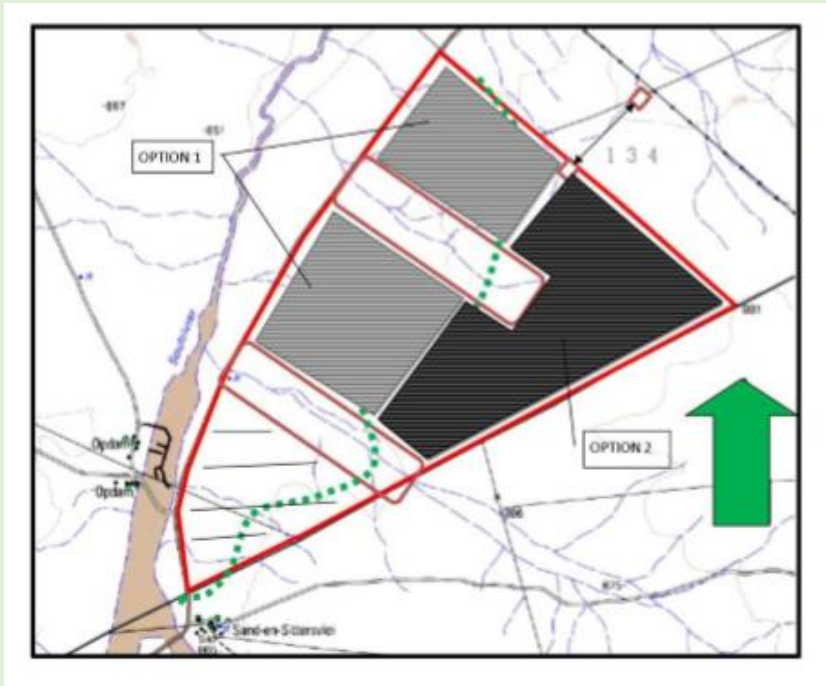
HOW TO BECOME INVOLVED

1. By responding by phone or e-mail to the invitation for your involvement which has been advertised in newspapers.
2. By returning the reply form to the relevant contact person.
3. By attending the meetings to be held during the course of the process. As a registered I&AP you will automatically be invited to attend the meetings. Dates for public meetings will also be advertised in local newspapers.
4. By contacting the consultants with queries or comments.
5. By reviewing and commenting on the draft Scoping and EIA Reports within the stipulated 30 day review periods.

If you consider yourself an I&AP for this project, we urge you to make use of this opportunities created by the public participation process to provide comments, raise issues and concerns which affect or interest you, or request further information. Your input into this process forms a key element of the EIA process.

By completing and submitting the accompanying reply form, you automatically register yourself as an I&AP for this project, and are ensured that your comments, concerns or queries raised regarding the project will be noted.

Piet van Deventer / Cindy Faul
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ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

CONSTRUCTION OF THE PROPOSED BRYPAAL SOLAR POWER (PV) PROJECT AND ASSOCIATED INFRASTRUCTURE

NORTHERN CAPE PROVINCE

PUBLIC INVOLVEMENT

Return completed reply form to: **Cindy Faul of Boscia Environmental Solutions**
 Tel: 073 437 2372
 E-mail: cindyfaul35@yahoo.com
 10 Borrius Street Potchefstroom 2531

Please provide your complete contact details:			
Name & Surname:			
Organisation & Designation:			
Postal Address:			
Telephone:		E-mail:	
Cellphone:			

Would you like to register as an interested and affected party (I&AP)?

YES	
NO	

Note: Please register as an I&AP to receive further correspondence regarding the EIA process for the project. Once registered on the project database, your contact details MAY be included in public documentation.

Please state your interest in the project (add additional pages if necessary):

Please list your questions, views or concerns regarding the project (add additional pages if necessary):

Please provide contact details of other persons who you regard as a potential interested or affected party:

Name & Surname:			
Organisation & Designation:			
Postal Address:			
Telephone:		E-mail:	
Cellphone:			