

SEPTEMBER 2010

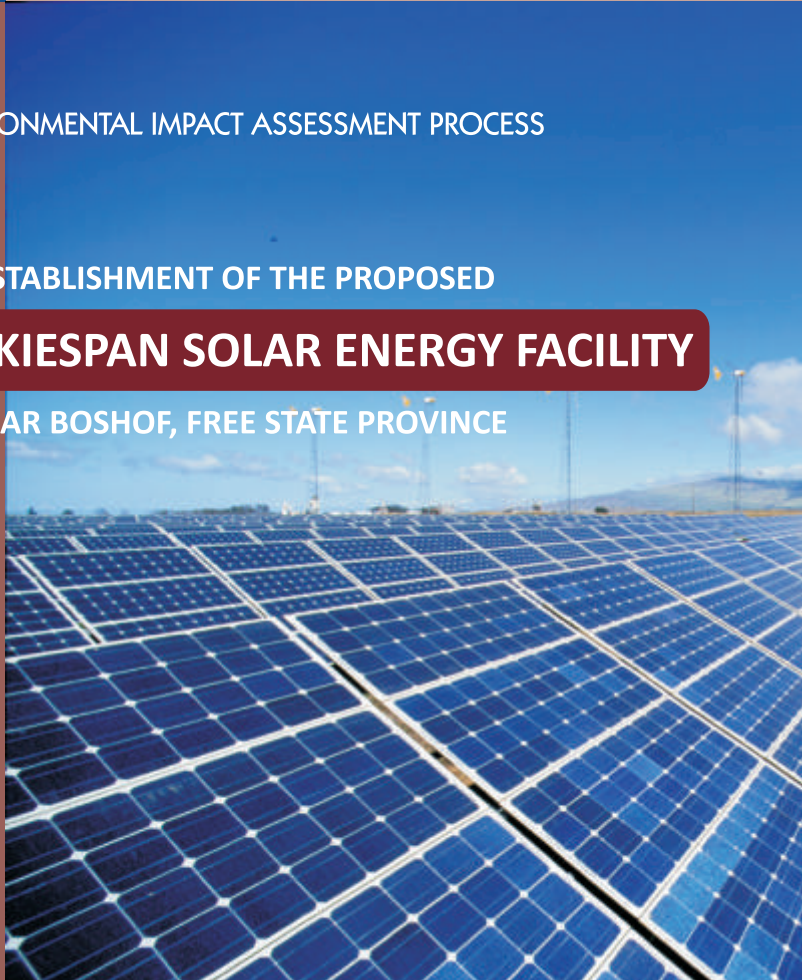
BACKGROUND INFORMATION DOCUMENT

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

ESTABLISHMENT OF THE PROPOSED

WAG'NBIKIESPAN SOLAR ENERGY FACILITY

NEAR BOSHOF, FREE STATE PROVINCE



A VENTUSA ENERGY INITIATIVE



SUSTAINABLE
FUTURES ZA



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ENERGY

VentuSA Energy (Pty) Ltd is proposing the establishment of a commercial solar electricity generating facility and associated infrastructure on a site in the Free State Province located ~50 km south-west of Boshof and ~32 km north-east of Kimberley. VentuSA Energy has identified a favourable site of 8 km² in extent for consideration and evaluation as per the Environmental Impact Assessment (EIA) Regulations. The proposed facility is proposed to make use of concentrating photovoltaic (CPV) technology with a total generating capacity of ~50MW, and would be known as the Wag'nbiekiespan Solar Energy Facility. The nature and extent of this facility is explored in more detail in this document.

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 solar facility.
- » An overview of the EIA Process 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 process, receive information, or raise issues which may concern and/or interest you.

OVERVIEW OF THE PROPOSED PROJECT

The Wag'nbiekiespan Solar Energy Facility is proposed on Portions 0 and 5 of the Farm Wag'nbiekiespan 1586 which falls within the Tokologo Local Municipality in the Lejweleputswa District Municipality of the Free State. The proposed site is preferred by virtue of climatic conditions (primarily as the economic viability of a solar energy facility is directly dependent on the annual direct solar irradiation values for a particular area), orographic conditions, relief and aspect, the extent of the site, and the availability of a grid connection (i.e. the point of connection to the National grid).

The facility is proposed to include several arrays of photovoltaic (PV) panels and/or concentrating photovoltaic (CPV) panels with a generating capacity of approximately 50 MW and the following associated infrastructure:

- » An on-site generator transformer and a small substation to facilitate the connection between the solar energy facility and the Eskom electricity grid.
- » An overhead power line (± 24 km in length) feeding into the Eskom electricity network at the existing Border Substation.
- » Internal access roads.
- » Workshop area for maintenance and storage.

The identified site covers a total area of approximately 8 km², the extent of which is larger than the space required for the facility's developmental footprint. Therefore, the PV panels and the associated infrastructure can be appropriately placed within the boundaries of the broader site.

Specialist studies will be undertaken within site-specific studies in order to delineate areas of sensitivity within the broader site. 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.

SOLAR ENERGY FACILITIES

The use of solar radiation for power generation is considered a non-consumptive use of a natural resource which produces zero greenhouse gas emissions. The generation of renewable energy will contribute to South Africa's electricity market which has, to date, been heavily dominated by coal-based power generation. The advancement of renewable energy is a priority for South Africa as the government has set a 10-year target of 10 000 GWh by 2013, as part of its White Paper on Renewable Energy. Furthermore, recent policy highlights the desirability of clean, green energy and solar generated energy will play a significant role in reaching these quotas.

Solar energy facilities, such as those using PV technology use the energy from the sun to generate electricity through a process known as the Photovoltaic Effect. Simply speaking, this refers to photons of light knocking electrons into a higher state of energy to create electricity.

PV facilities consist of the following:

The Photovoltaic Cell

A photovoltaic (PV) cell is made of silicone which acts as a semiconductor used to produce the photovoltaic effect. Individual PV cells are linked and placed behind a protective glass sheet to form a photovoltaic panel.

Optics

Concentrating PV technology typically consists of different optical elements, such as mirrors and Fresnel lenses which are used to concentrate solar radiation onto a point where a PV cell is located. Concentrating the solar radiation serves to maximise the potential electricity generation.

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 fixed to a support structure set at an angle so to receive the maximum amount of solar radiation. The angle of the panel is dependent on the latitude of the proposed facility and the angles may be adjusted to optimise for summer or winter solar radiation characteristics.

The PV panels are designed to operate continuously, unattended and with low maintenance for approximately 20 years. A facility consisting of several PV arrays with a generating capacity of 50 MW could take up to one year to construct and commission, and would require the expertise of skilled staff.

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), VentuSA Energy requires authorisation from the National Department of Environmental Affairs (DEA), in consultation with the Free State Department of Economic Development, Tourism and Environmental Affairs (DEDTEA), for the undertaking of the proposed solar energy facility. This project has been registered with the DEA under application reference number 12/12/20/1862.

In terms of sections 24 and 24D of NEMA, as read with the EIA Regulations of GN R385 (Regulations 27 - 36), R386 and R387, a Scoping Phase and an EIA Phase are required to be undertaken for the proposed project. In order to obtain authorisation, comprehensive, independent environmental studies must be undertaken in accordance with these regulations.

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 fore-warned of potential environmental issues, and allows for resolution of the issue(s) reported on in the EIA report as well as dialogue with I&APs.

VentuSA Energy has appointed Savannah Environmental, as the independent environmental consultants, to undertake the required Scoping and EIA Phases to identify and assess the potential environmental impacts associated with the proposed project, and to propose appropriate mitigation and management measures in an Environmental Management Plan (EMP). As part of these environmental studies, I&APs will be actively involved through the public involvement process being undertaken by Sustainable Futures ZA.

The public involvement within the phases of an EIA include:

PHASE 1

Notification of EIA Process

1. Application form sent to Department of Environmental Affairs
2. Advertise in local and/or regional newspapers
3. Inform IA&Ps and stakeholders through site notices, background information documents & stakeholders letters

PHASE 2

Scoping Phase

1. Consultation with stakeholders & I&APs
2. Focus group meetings
3. Public meeting
4. Public Review of Draft Scoping Report

PHASE 3

Environmental Impact Assessment Phase

1. On-going consultation with stakeholders and I&APs
2. Focus group meetings
3. Public meetings
4. Public Review of Draft EIA Report & EMP

PHASE 4

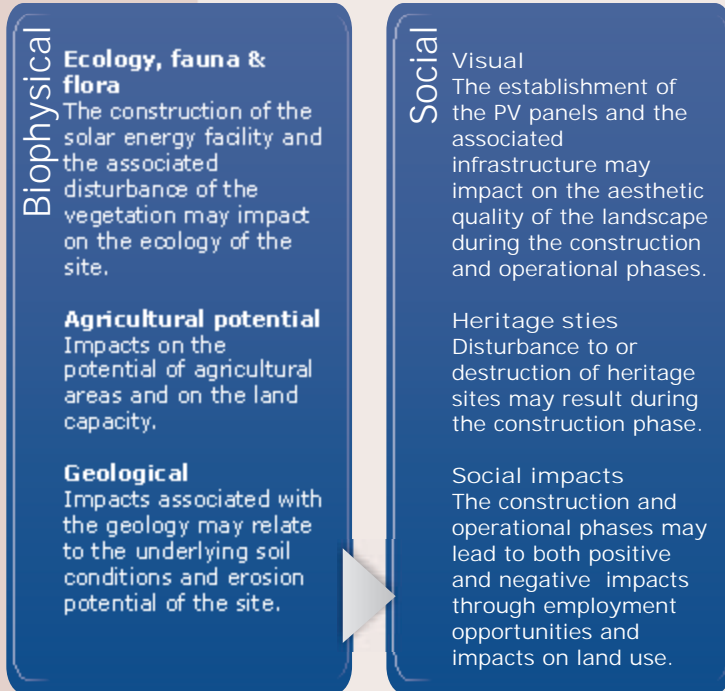
Decision Making

1. Review of Final EIA Report by Department of Environmental Affairs
2. Inform stakeholders & I&AP of decision in writing

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

The construction and operation of the proposed facility has the potential to impact on the environment in both a positive and negative manner. A number of potential environmental impacts associated with the proposed project have been identified.

These potential impacts will be assessed through the following specialist studies:



Specialist studies will be undertaken to identify and assess these potential impacts and will be undertaken in two phases:

1. A desk-top Scoping Phase Study, wherein potential issues associated with the proposed project are identified and those issues requiring further investigation through the EIA Phase are highlighted.
2. A detailed EIA Phase Assessment of potentially significant impacts identified in the Scoping Phase. Practical and achievable mitigation measures will be recommended in order to minimise potentially significant impacts identified. These recommendations will be included within a Draft EMP.

Specialist studies will be informed by existing information, field observations and input from the public participation process. As an I&AP, your input is considered an important part of this process, and we urge you to become involved.

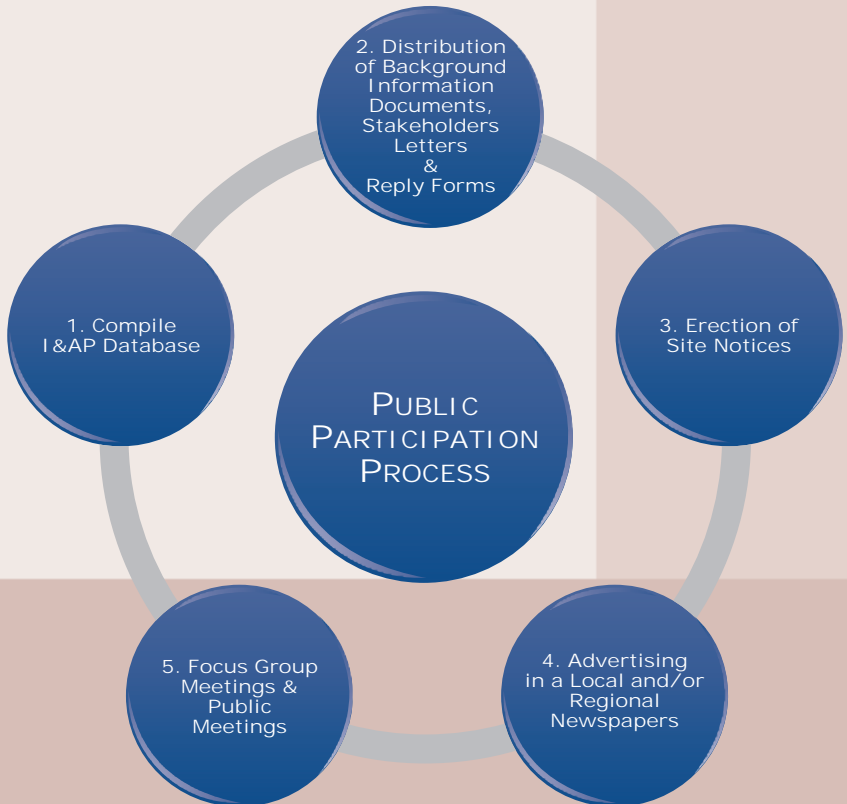
PUBLIC INVOLVEMENT PROCESS

The sharing of information forms the basis of the public participation process and offers you the opportunity to become actively involved 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 public participation process aims to ensure that:

- » Information that contains all the relevant facts in respect of the application is made available to I&APs for review.
- » I&AP participation is facilitated in such a manner that they are provided with a reasonable opportunity to comment on the proposed project.
- » Adequate review periods are provided for I&APs to comment on the findings of the Draft Scoping and EIA Reports.

In order to ensure effective participation, the public participation process includes the following phases:



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, fax or e-mail to the invitation for your involvement which has been advertised in local and national newspapers.
2. By returning the attached Reply Form to the relevant contact person.
3. By attending the meetings to be held during the course of the project. As a registered I&AP you will automatically be invited to attend these meetings. Dates for public meetings will also be advertised in local and regional 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 proposed project, we urge you to make use of the opportunities created by the public participation process to provide comment, raise issues and concerns which affect and/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.

COMMENTS AND QUERIES

Direct all comments, queries or responses to:

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To view project documentation, visit

www.savannahSA.com

Proposed Wag'n'biekiespan Solar Energy Facility

Locality Map

Legend

- National Road
- Regional Road
- Substation
- Transmission Line
- Distribution Line
- Farm Portions

