AUGUST 2012

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

ESTABLISHMENT OF THE PROPOSED PRIESKA SOLAR ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE ON A SITE NEAR PRIESKA, NORTHERN CAPE

AN INITIATIVE OF
JOUREN SOLAR (PTY) LTD

BACKGROUND INFORMATION DOCUMENT

Savannah
ENVIRONMENTAL (PTY) LTD

Jouren Solar (Pty) Ltd is proposing the establishment of a commercial photovoltaic (PV) solar energy facility and associated infrastructure on a site located approximately 30 km north-east of Prieska in the Northern Cape. Jouren Solar (Pty) Ltd has identified a favourable site for consideration and evaluation as per the Environmental Impact Assessment (EIA) Regulations. The proposed facility is referred to as the Prieska Solar Energy Facility. The nature and extent of the 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 (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 and/or interest you.

OVERVIEW OF THE PROPOSED PROJECT

The Prieska Solar Energy Facility is proposed on Portion 3 of the Farm Holsloot 47 which falls within the Siyathemba Local Municipality. 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, 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) solar panels with an installed capacity of approximately 75 Megawatts (MW) and includes the following associated infrastructure:

- Solar panels with a generating capacity of 75 MW.
- An on-site inverter to step up the power and a substation to facilitate the connection between the solar energy facility and the Eskom electricity grid.
- A loop-in and loop out power line to connect into the existing Burchell - Mooidraai 1 132kV power line which traverses the site.
- Internal access roads.
- Workshop area for maintenance and storage.

The extent of the broader site is larger than the space required for the facility's development footprint. A proposed development footprint inclusive of associated infrastructure of <200ha can be appropriately placed within the boundaries of the broader site while aiming to avoid any environmental sensitivities identified through the EIA process.

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 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 (Gigawatt Hour) of electricity 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.

Solar PV facilities comprise of the following components:

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.

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 to receive the maximum amount of solar radiation. The angle of the panel is dependent on the latitude of the proposed facility. The angle of the support structure may be adjusted in winter and summer for to optimise seasonal solar radiation characteristics.

The PV panels are designed to operate continuously for more than 20 years, unattended and with low maintenance. The proposed development would consist of several PV arrays with a generating capacity of 75 MW. Construction would approximately take up to two years and commission with experienced, expert staff.

Illustration of a photovoltaic solar energy facility

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), Jouren Solar (Pty) Ltd requires authorisation from the National Department of Environmental Affairs (DEA) (in consultation with the Northern Cape Department of Environment and Nature Conservation (DENC)), for the undertaking of the proposed project. This project has been registered with the DEA under application reference number 14/12/16/3/3/2/313.

In terms of sections 24 and 24D of NEMA, as read with the EIA Regulations of GNR543 to GNR546, a Scoping 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 the EIA 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.

Jouren Solar (Pty) Ltd has appointed Savannah Environmental, as the independent environmental consultants, to undertake the required Scoping Phase and EIA to identify and assess all the potential environmental impacts associated with the proposed project, and proposes appropriate mitigation and management measures in an Environmental Management Programme (EMP). As part of these environmental studies, I&APs will be actively involved through the public involvement process.

The phases of an EIA are:

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 I&APs & stakeholders through site notices, background information documents & stakeholders letters

PHASE 2
Scoping Phase
1. Consultation with I&APs & stakeholders
2. Focus group meetings
3. Public meetings
4. Public review of Draft Scoping Report

PHASE 3
Environmental Impact Assessment Phase
1. On-going consultation with I&APs & stakeholders
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 I&APs and stakeholders of the decision in writing

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

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:

Ecology, fauna, and flora - the construction of the facility and the associated disturbance of vegetation may affect the ecology and biodiversity of the site.

Geology and soil erosion - the underlying geology may be affected in terms of soil degradation and/or erosion.

Agricultural potential - solar facilities typically result in whole-scale disturbance of the development footprint and therefore the impact on the agricultural potential of the identified site must be assessed.

Heritage sites and palaeontology - disturbance to or destruction of heritage sites and fossils may result during the construction phase through excavation activities.

Visual aesthetics - the establishment of an industrial facility of this nature has the potential to affect the visual aesthetics within the area.

Social: the construction and operation of the facility may result in positive socio-economic opportunities in terms of local employment as well as negative impacts in terms of safety and security and land use characteristics.

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 potentially significant impacts identified in the Scoping Phase. Specialist studies will be undertaken in order to determine the nature and significance of the potential impacts. These specialist studies will be informed by existing information, field observations and input from the public participation process. Practical and achievable mitigation measures will be recommended in order to minimise potentially significant impacts identified. These recommendations will be included within an Environmental Management Programme.

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 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:

» Distribution of this Background Information Document at the start of the process.
» Identification of I&APs including adjacent landowners and Organs of State.
» Placement of site notices at the affected properties.
» Placement of advertisements in newspapers.
» Compilation of an I&AP database which is updated throughout the EIA Process. All registered I&APs are personally notified at milestones in the EIA process through a stakeholder letter.
» Release of the Draft Scoping and EIA Reports for public review.
» Holding public meetings, and focus group meetings with I&APs to further facilitate the participation process.

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 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 these 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 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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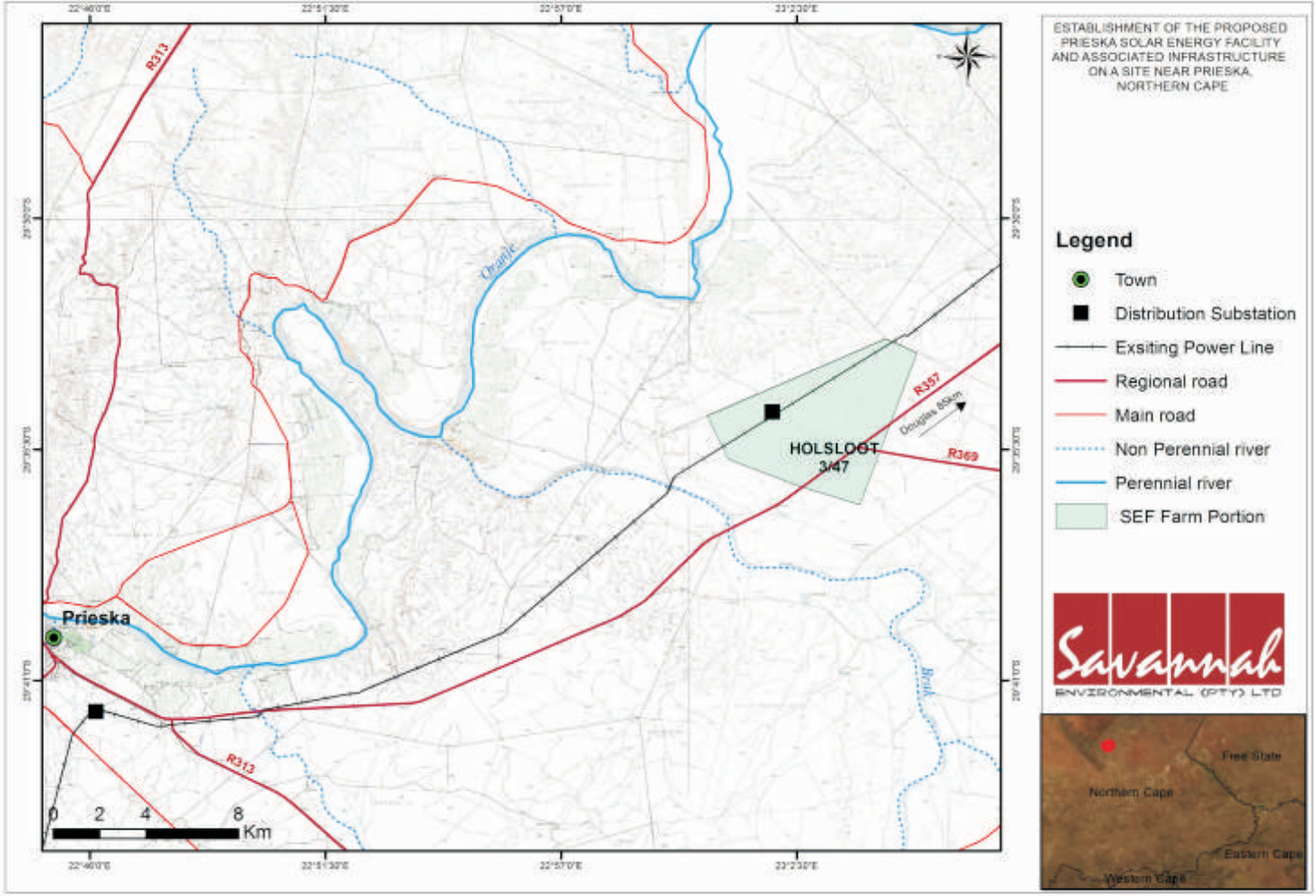
To view project documentation, visit
www.savannahSA.com


ESTABLISHMENT OF THE PROPOSED PRIESKA SOLAR ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE ON A SITE NEAR PRIESKA, NORTHERN CAPE
Legend
Town
Distribution Substation
Exsiting Power Line
Regional road
Main road
Non Perennial river
Perennial river
SEF Farm Portion
HOLSLOOT 3/47
Prieska
R313
R357
R369
Douglas 85Km
Orange
Brak
0 2 4 8 Km
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