

AES Solar Energy Limited, hereafter referred to as AES, appointed *Environmental Resources Management Southern Africa (Pty) Ltd*, hereafter referred to as ERM, as independent environmental consultants to undertake the Environmental Impact Assessment (EIA) process for the proposed photovoltaic (PV) solar power plant in the Northern Cape Province.

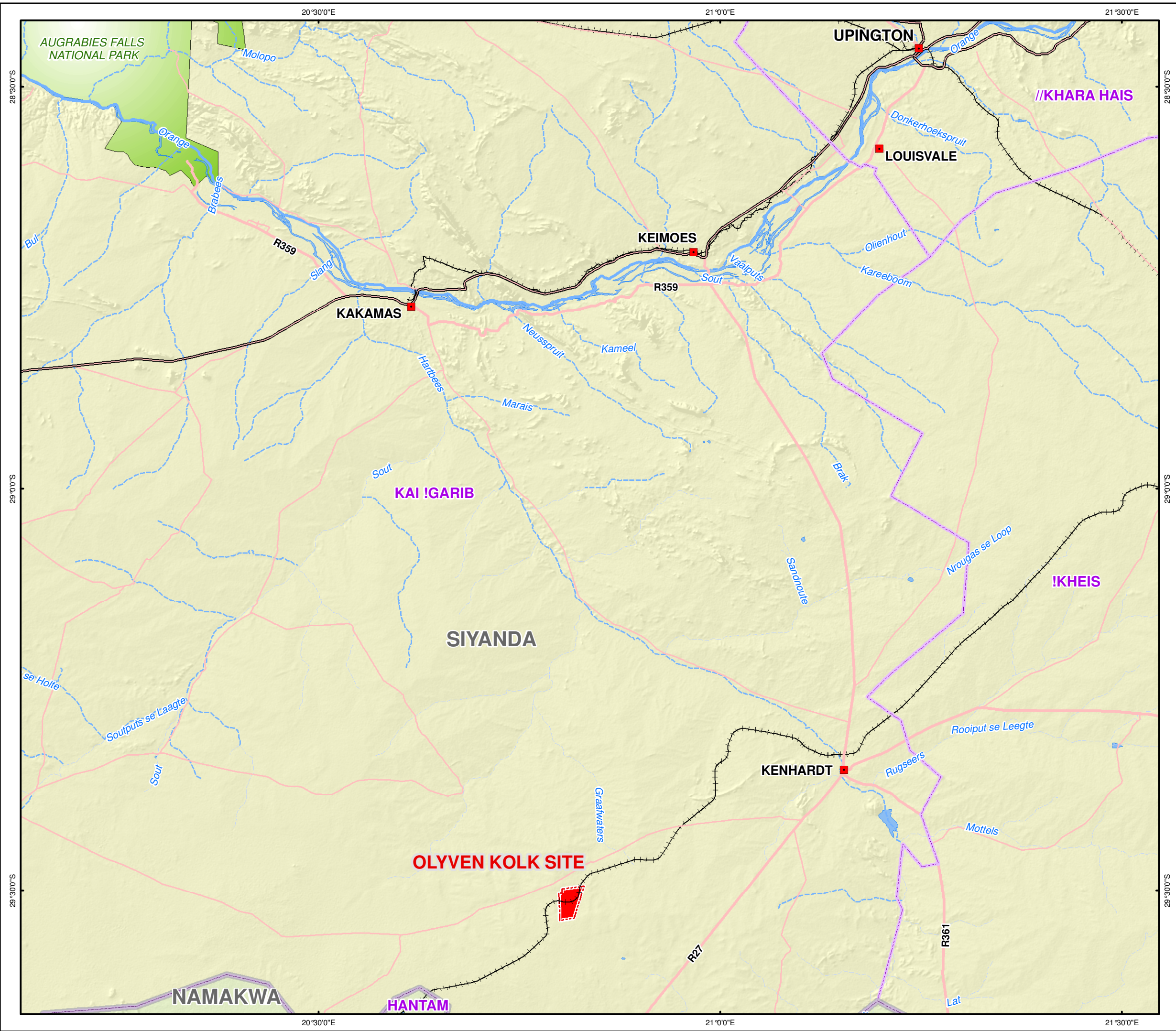
The site is located on the remaining portion of portion 14 (a portion of portion 4) of Olyven Kolk Farm, No. 187 which is situated in the Siyanda District (see *Figure 1.1*). The proposed development includes the installation and operation of solar panels (PV arrays) with a projected output of up to 190 megawatts (MW) to be constructed in phases over time. It is intended that the electricity generated by the proposed facility will feed into the national electrical grid network.

The proposed solar power plant will consist of the following key components:

- PV solar panels/modules (arranged in arrays);
- PV module mountings;
- DC-AC current inverters; and
- Underground cabling.

In addition, associated infrastructure will be required such as a temporary construction camp, offices and control building, meteorological building and access roads.

This Draft Environmental Impact Report (EIR) has been compiled as part of the EIA process in accordance with regulatory requirements stipulated in the EIA Regulations (Government Notice R543 – R546 of 18 June 2010) promulgated in terms of Section 24(5) of the National Environmental Management Act (NEMA) (Act No. 107 of 1998), as amended.



Legend

- Main Towns
- Perennial Rivers
- - - Non Perennial Rivers
- Dry Rivers
- == National Roads
- Main Roads
- Secondary Roads
- ++ Railway Line
- Conservation areas
- Perennial Dam
- ▭ District Municipalities
- ▭ Local Municipalities
- ▭ Olyven Kolk Site

SCALE:
0 5 10 15 20 25
Kilometres

TITLE:
**Figure 1.1
Location of Project Site**

CLIENT:
AES Solar Energy

DATE: Oct 2011	CHECKED: IE	PROJECT: 0126393
DRAWN: LDT	APPROVED: SHC	SCALE: 1 : 500 000
DRAWING: Fig1.1_Location of Project Site.mxd		REV: 2

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Projection: Geographic, Datum: WGS84
Source: EnPat (2001) Demarcation Board (2011)
Inset Map, Esri Data & Maps

SIZE:
A3

C:\0126393_AES\Mapping\MXD\October2011\Fig 1.1_Location of Project Site.mxd

1.2

PURPOSE OF THE REPORT

The information contained in the EIR along with comments and inputs received from stakeholders and commenting authorities will assist the competent authority, the National Department of Environmental Affairs (DEA) in deciding whether or not to grant environmental authorisation and inform the conditions associated with authorisation.

Fundamental to an environmental assessment is the identification, prediction and evaluation of the actual and potential environmental consequences of an activity and the options for mitigation of negative impacts and enhancement of positive impacts (DEAT, 2003). It is often possible to introduce measures to avoid, mitigate or compensate for many of the negative environmental impacts of a particular development provided that these potential impacts are identified early in the planning process. At the same time, it would be important to also look at opportunities for enhancement of positive impacts or benefits.

The objectives of this document are to:

- Communicate the results of the EIA process for the proposed development and alternatives considered;
- Ensure that the impacts identified during the EIA process are adequately addressed;
- Show the proponents response to the environmental concerns raised, and efforts taken by the proponent towards mitigating/ enhancing the impacts/ benefits;
- Provide a record of comments and responses received from I&APs during the process; and
- Facilitate informed, transparent and accountable decision-making process by the relevant authorities.

1.3

THE PROJECT PROPONENT

AES Solar Energy Limited (AES) was established in 2008 as a joint venture between the AES Corporation, one of the world's largest global power companies and Riverstone Holdings LLC, an energy and power-focused private equity firm. AES Solar is developing a platform of utility-scale solar photovoltaic (PV) projects around the world. The company seeks to be a leading global developer, owner and operator of utility-scale solar power plants that will be connected to the power grid and supply homes and businesses with clean, renewable energy.

AES owns and operates a growing fleet of solar PV plants in Europe, and has a robust pipeline of projects in countries offering incentives to renewable energy producers. With its extensive international renewable energy development experience, AES is committed to developing projects in South Africa that will improve sustainability, contribute to climate change mitigation

and the success of South Africa's renewable energy industry, whilst also improving quality of living for South African citizens through improved national energy security.

1.4 *DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER*

1.4.1 *ERM Southern Africa*

ERM was appointed by AES to undertake the EIA for the proposed solar power plant. ERM is a global environmental consulting organisation employing over 3,500 specialists in over 145 offices in more than 41 countries. Founded in 1971, ERM has built an organisation based on the supply of a full range of environmental and social policy, scientific, technical, and regulatory expertise. Our primary focus is to provide quality work and service to our clients in these areas.

From a regional perspective ERM has been involved in numerous projects in Africa over the past 30 years and in 2003 established a permanent presence in Southern Africa to meet the growing needs of our clients. The Southern African ERM offices are based in Cape Town, Johannesburg, Pretoria and Durban. ERM Southern Africa has a staff complement of over 120 dedicated environmental professionals offering expert skills in EIA, EMP, EMS, risk assessment, EHS management and auditing, corporate social responsibility and socio-economic impact assessment, climate change services, specialist groundwater services as well as contaminated site management. ERM Southern Africa has recently undertaken a number of EIAs for solar farms, including PV solar plants in the Northern Cape and the Free State.

1.4.2 *EIA Project Team*

The Partner in Charge of the EIA, Stuart Heather-Clark, is a certified environmental assessment practitioner and the project has been conducted in terms of the code of ethics promulgated by the Certification Board for Environmental Assessment Practitioners of South Africa (EAPSA), which includes a requirement for independence. Stuart has overall responsibility for the team and delivery of the EIA study. Stuart has more than 15 years experience in the field of Impact Assessment in South Africa, and is the Practice Leader for the Impact Assessment and Planning Team in ERM Southern Africa.

ERM, consultants and the specialists appointed by ERM during the course of this EIA have no financial ties to, and nor are they a subsidiary, legally or financially, of AES. Remuneration for the services by the applicant, AES in relation to this EIA is not linked to approval by any decision-making authority and ERM has no secondary or downstream interest in the development.

The structure of this Draft EIR is as follows:

Table 1.1 *Report Structure*

Section	Contents
Chapter 1 Introduction	Contains a brief description of the proposed activity and an outline of the report structure.
Chapter 2 Regulatory Framework	Outlines the legislative, policy and administrative requirements applicable to the proposed development.
Chapter 3 Approach and Methodology	Outlines the approach to the EIA study and summarises the process undertaken for the project to date.
Chapter 4 Project Description	Includes a detailed description of the proposed project activities and the alternatives.
Chapter 5 Biophysical Baseline	Describes the receiving biophysical baseline environment.
Chapter 6 Social Baseline	Describes the receiving socio-economic baseline environment.
Section 7 Impacts on soils, surface and groundwater	Describes and assesses the potential impacts of the proposed development on soils, surface and groundwater.
Chapter 8 Impacts on Ecology and Biodiversity (Flora and Fauna)	Describes and assesses the potential impacts of the proposed development on flora and fauna. Mitigation measures are also recommended.
Chapter 9 Impacts on Birds	Describes and assesses the potential impacts of the proposed development on birds and describes relevant mitigation measures.
Chapter 10 Visual Impacts	Describes and assesses the potential visual impacts of the proposed development and describes relevant mitigation measures.
Chapter 11 Impacts on Archaeology, Palaeontology and Cultural Heritage	Describes and assesses the potential impacts of the proposed development on cultural heritage aspects and describes relevant mitigation measures.
Chapter 12 Socio-Economic Impacts	Describes and assesses the potential socio-economic impacts of the proposed development and describes relevant mitigation measures.
Chapter 13 Other Impacts	Describes and assesses other potential impacts of the proposed development and describes relevant mitigation measures.
Chapter 14 Cumulative Impacts	Qualitatively assesses potential cumulative impacts.
Chapter 15 Decommissioning	Indicates that decommissioning impacts would be similar to construction impacts.
Chapter 16 Conclusions and Recommendations	Summarises the key findings of the EIA and provides recommendations for the mitigation of potential impacts and the management of the proposed project.
Chapter 17 References	Contains a list of references used in compiling the report.

In addition, the report includes the following annexures:

- Annex A:* Legislative Framework
- Annex B:* Photographs
- Annex C:* Public Participation Documentation
- Annex D:* Issues and Response Report
- Annex E:* DEA acceptance of Scoping
- Annex F:* Ecological and Biodiversity Specialist Report
- Annex G:* Bird Specialist Report
- Annex H:* Archaeological, Heritage and Paleontological Specialist Report
- Annex I:* Visual Specialist Report
- Annex J:* Drainage Lines Report
- Annex K:* Environmental Management Programme

1.6 OPPORTUNITY TO COMMENT ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

Interested and Affected parties (I&APs) and authorities will be provided with an opportunity to comment on any aspect of the proposed activity and this Draft EIR. A hardcopy of the Draft EIR is available at the Kenhardt Library and electronically at <http://www.erm.com/EIA-AES>.

A notification letter was sent to all registered and identified I&APs to inform them of the release of the Draft EIR and where the report could be reviewed.

Stakeholders should forward comments to ERM at the address, tel. /fax numbers or e-mail address shown below. The deadline by which comments are to reach ERM is Monday 5th December 2011.

Attention: Isobel Evans or Linda Slabber
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