

DEA REFERENCE: 14/12/16/3/3/2/731
AGRILAND REFERENCE NUMBER: 2014_09_0120

**APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR THE
PROPOSED CONSTRUCTION OF A PHOTOVOLTAIC SOLAR
POWER STATION WITH ASSOCIATED INFRASTRUCTURE ON THE
FARM BRAKFORTEIN 897 HN, BETWEEN TAUNG AND REIVILO IN
THE NORTH WEST PROVINCE**

BRAKFORTEIN SOLAR POWER PLANT (PTY) LTD

SCOPING REPORT

OCTOBER 2014



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AUTHORISATION FOR THE PROPOSED
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October 2014

CEM 2014-061



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- finding solutions for environmental and sustainability challenges;
- delivering fit-for-purpose short learning programmes;
- mentoring, coaching and fast-tracking candidate environmental professionals;
- being the service provider of choice; and
- being respected locally, regionally and internationally for its leadership role as a catalyst for change towards a more sustainable, future.

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 - academically driven problem solving in environmental management and sustainability.
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 - respected national, regional and international leaders in environmental management and related fields.
- identify and unlock prospects, whilst exceeding expectations in the quest for continually improving the way we work and engage with others;
- sustainably grow our:
 - fields of expertise;
 - skills base and acumen;
 - human and other asset value; and
 - reach and impact.
- effectively, efficiently and responsibly manage our processes in line with all applicable requirements.

CEM: Vision and Mission Rev 2013-01

APPROVAL

CLIENT: Brakfontein Solar Power Plant (Pty) Ltd.

PROJECT: Application for environmental authorisation for the proposed construction of a photovoltaic solar power station with associated infrastructure on the farm Brakfontein 897 HN, between Taung and Reivilo in the North West Province

DEA REFERENCE NUMBER: 14/12/16/3/3/2/731

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REPORT TITLE: Scoping report

REPORT STATUS: Final

DATE OF REPORT: October 2014

ENVIRONMENTAL ASSESSMENT PRACTITIONER: Mr Theunis Meyer, Centre for Environmental Management

PROJECT CO-ORDINATOR: Mr Jurie Moolman, Centre for Environmental Management

**For: Centre for Environmental
Management
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**For: Brakfontein Solar Power Plant
(Pty) Ltd.
Mr Charles Berrington**

TABLE OF CONTENTS

1	Introduction	11
1.1	Project Background.....	11
1.2	Purpose of the Document	11
1.3	Report Structure.....	11
1.4	Details of the Applicant	12
1.5	Details of the Environmental Assessment Practitioner who prepared the report.....	12
1.5.1	Expertise of EAP to carry out scoping procedures.....	13
1.5.2	Independence of EAP	14
2	Need and desirability of the proposed activity.....	15
2.1	Need for the Brakfontein Solar PV Plant	15
2.2	Desirability of the Brakfontein Solar PV Plant.....	15
2.2.1	Local socio-economic value of the Brakfontein Solar PV Plant.....	15
2.2.2	Additional socio-economic value of the Brakfontein Solar PV Plant.....	16
3	Description of the proposed activity and alternatives	18
3.1	Description of the proposed activity: Brakfontein Solar PV Plant.....	18
3.1.1	Description of infrastructure and facilities	19
3.2	Description of feasible and reasonable alternatives identified	28
3.2.1	Site alternatives.....	28
3.2.2	Site lay-out alternatives	29
3.2.3	Technological and structural alternatives.....	30
4	Description of the property and environment that may be affected	31
4.1	Baseline description of the environment that may be affected by the activity	31
4.1.1	Location of the proposed site for the Brakfontein Solar PV Plant.....	31
4.1.2	Climate.....	31
4.1.3	Topography.....	31
4.1.4	Geology and soils.....	31
4.1.5	Vegetation.....	31
4.1.6	Hydrology.....	36
4.1.7	Land use	39
5	Applicable legislation and guidelines	40
6	Authorisations required for the proposed activity	41
6.1	Authorisations required in terms of the NEMA and NWA:.....	41
6.2	Authorisations required in terms of the NWA:.....	41

6.3	Authorisations required in terms of the Minerals and Petroleum Resources Development Act (MPRDA) (No. 28 of 2002):	42
6.4	Authorisations required in terms of the National Heritage Resources Act (No 25 Of 1999):.....	42
6.5	Authorisations required in terms of the Aviation Act (No. 13 of 2009):.....	42
6.6	Authorisations required in terms of the Subdivision of Agricultural Land Act (No 70 of 1970):.....	42
7	Description of environmental issues and potential impacts, including cumulative impacts.....	43
7.1	Potential environmental impacts	44
7.2	Manner in which the environment may be affected by the proposed activity	46
8	Public Participation.....	49
8.1	Steps taken to notify potentially interested and affected parties of the application.....	49
8.1.1	Pre-application consultation with competent authority	49
8.1.2	Submission of Application form for Environmental Authorisation	49
8.1.3	Invitations to I&APs as listed in Table 7 and 8	49
8.1.4	I&AP registration	49
8.1.5	Public meeting.....	53
8.2	Proof of notice boards, advertisements and notices notifying potentially interested and affected parties of the application	53
8.2.1	Submission of notices	53
8.3	A summary of issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues	53
8.4	Copies of the minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants.....	53
9	Plan of study (PoS) for EIA.....	59
9.1	Description of the tasks that will be undertaken as part of the EIA process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken	59
9.1.1	Specialist studies	59
9.1.2	EIA Report & EMP.....	59
9.2	Stages at which the competent authority will be consulted.....	59
9.3	Description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity	60
9.4	Particulars of the public participation process that will be conducted during the EIA process	61

Appendix 1:	Proof of pre-authorisation consultation with the competent authority (e-mail sent on 2014-08-05).....	63
Appendix 2:	Proof of communication with the competent authority regarding the EIA application	66
Appendix 3:	Proof of communication with the Department of Water Affairs regarding the proposed development.....	67
Appendix 4:	Proof of per-application communication with SKA South Africa	69
Appendix 5:	Acknowledgement letter from the Department of Environmental Affairs (11th of August 2014).....	71
Appendix 6:	Proof of North-West Department of Rural, Environmental and Agricultural Development acknowledgement of EIA application	80
Appendix 7:	Proof of Department of Agriculture, Forestry and Fisheries acknowledgement of EIA application	82
Appendix 8:	Proof of South African Heritage Resources Agency acknowledgement of EIA application	83
Appendix 9:	Proof of invitations to register as Interested and Affected Parties (I&APs) that were mailed to pre-identified I&APs, including neighbours, community based organisations and other government authorities	85
Appendix 10:	Invitation to register as Interested and Affected Party (I&AP) that was e-mailed to the Greater Taung Local Municipality	96
Appendix 11:	Background Information Document sent to I&APs.....	102
Appendix 12:	Proof of completed I&AP registration forms received from I&APs.....	107
Appendix 13:	Copy of letter informing I&APs that the Scoping Report is available for review.	113
Appendix 14:	Proof of newspaper advertisements published in Stellalander (23 July 2014)..	115
Appendix 15:	Copies of site notices printed in three languages (English, Setswana and Afrikaans).....	116
Appendix 16:	Photographic proof of site notices erected in three languages (English, Setswana and Afrikaans).....	119
Appendix 17:	Proof of presentation delivered at the public participation meeting held at Taung Public library on 25 August 2014.	121
Appendix 18:	Minutes of the public participation meeting held at Taung Public library training centre on 25 August 2014.	133
Appendix 19:	Attendance register of the public participation meeting held at Taung Public library training centre on 25 August 2014.	139
Appendix 20:	Copies of responses from EAP to representations, comments and views raised by interested and affected parties.....	141
Appendix 21:	Minutes of the public participation meeting held at the residence of Mr and Mrs du Plessis on 17 September 2014.....	142

Table of Figures

Figure 1:	Schematic diagramme illustrating the photovoltaic technology.	18
Figure 2:	Technical design site layout with associated infrastructure of the proposed solar PV plant on the farm Brakfontein 897 HN.	20
Figure 3:	Preliminary implementation layout of the proposed Brakfontein solar PV plant.	21
Figure 4:	A typically rack or fixed structure.	23
Figure 5:	STI-Norland tracker.	24
Figure 6:	Proposed site location of the Brakfontein Solar PV plant relevant to the towns of Reivilo (west) and Taung (east).	32
Figure 7:	1:50 000 locality map, indicating the property on which the proposed PV power plant will be constructed.	33
Figure 8:	Topography and vegetation of the proposed development site on the farm Brakfontein 897 HN.	34
Figure 9:	1:50 000 geology map, indicating the geology underlying the proposed Brakfontein Solar PV plant.	35
Figure 10:	Small pan-like feature scattered across the proposed development site.	37
Figure 11:	Surface hydrology on and around the proposed development site.	38
Figure 12:	Underlying dolomites on the Ghaap Plateau which supply most of the water for agricultural and domestic purposes in the region.	39
Table 1:	Dominant species within the Ghaap Plateau Vaalbosveld vegetation unit.	35
Table 2:	Recharge rate of aquifers near the town of Reivilo.	37
Table 3:	Relevant legislation and guidelines considered.	40
Table 4:	Listed activities published in GN R. 544, 545 and 546.	41
Table 5:	Water uses published in the NWA (No. 36 of 1998).	41
Table 6:	Potential environmental impacts associated with the various phases of the proposed development	45
Table 7:	Register of identified and registered interested and affected parties.	50
Table 8:	A summary of issues raised by interested and affected parties and the response of the EAP to those issues.	54

ABBREVIATIONS AND ACRONYMS

Abbreviation or Acronym	Description
AC	Alternating Current
BA	Basic Assessment
CA	Competent Authority
CAR	Civil Aviation Regulations
CCTV	Close Circuit Television
CEM	Centre for Environmental Management
DC	Direct Current
DEA	Department of Environmental Affairs
DoE	Department of Energy
DWA	Department of Water Affairs
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EPC	Engineering, Procurement and Construction
GN R.	Government Notice Regulation
HMI	Human Machine Interface
I&APs	Interested and Affected Parties
IPPPP	Independent Power Producers Procurement Process
NEMA	National Environmental Management Act (No. 107 of 1998)
NWA	National Water Act (No. 36 of 1998)
NWDEDECT	North West Department of Economic Development, Environment, Conservation and Tourism
PPP	Public Participation Process

Abbreviation or Acronym	Description
PV	Photovoltaic
RFO	Request for Offers
RTU's	Remote Telemetry Units
SAATCA	Southern African Auditor Training and Certification Association
SACNASP	South African Council for Natural Scientific Professions
SANS	South African National Standards
SCADA	Supervisory Control and Data Acquisition
TLB	Tractor Loader Backhoe

PART 1: REPORT

1 Introduction

1.1 Project Background

Brakfontein Solar Power Plant (Pty) Ltd. proposes to develop a 75 Megawatt (MW) solar Photovoltaic (PV) power plant, as well as associated infrastructure such as roads and a power line, at a site between the towns of Taung and Reivilo in the North West Province. It is currently engaged in the process of securing the development rights, consents and authorisations necessary to bid the project in the Department of Energy's Renewable Energy Independent Power Producer Procurement (REIPPP) Programme.

The purpose of the proposed solar energy facility is to add new capacity for generation of renewable energy to the national electricity mix, in line with government policy. The PV facility is designed to operate continuously with low maintenance for 20 years.

The development of the proposed PV facility and associated infrastructure involves activities listed in terms of the National Environmental Management Act 107 of 1998 (NEMA) that require that a full Environmental Impact Assessment (EIA) must be conducted to obtain Environmental Authorisation (EA), prior to the commencement of those activities. The proposed development will also require a water use authorisation in terms of the National Water Act 36 of 1998 (NWA).

1.2 Purpose of the Document

This scoping report will:

- document relevant information regarding the Scoping Phase of the EIA process;
- identify all the potential issues and environmental impacts associated with the proposed construction, operation, maintenance and decommissioning of the Brakfontein PV Solar Power Plant;
- identify and determine the scope of the relevant specialist studies that will need to be undertaken as part of the EIA process and provide information on how the significance of the potential environmental impacts will be determined;
- provide information on the Public Participation Process (PPP) that has and will be followed as part of the EIA process, as well as details of the government institutions and interested and affected parties (I&APs) who are and will be involved in the EIA process.

1.3 Report Structure

This Scoping Report consists of nine sections, in line with the information requirements contained in *Regulation 28 (1) of GN R. 543, which specifies that a scoping report must contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping.*

- **Section 1** contains an introduction to the project, as well as the details of the applicant and the EAP ;
- **Section 2** contains the motivation for the need and desirability of the proposed activity;

- **Section 3** provides a description of the proposed activity and alternatives thereto;
- **Section 4** contains a description of the property on which the proposed activity is to be undertaken, and the environment which may be affected by the activity;
- **Section 5** summarizes the applicable guidelines and legislation considered during the EIA Process;
- **Section 6** identifies the potential environmental authorisations required for the proposed activity;
- **Section 7** contains a description of the potential identified environmental issues and environmental impacts, as well as the potential specialist studies that may need to be undertaken;
- **Section 8** provides an overview of the Public Participation process;
- **Section 9** provides an overview of the Plan of Study to be undertaken; and
- The **Appendices** to the Scoping Report contain information relevant to the EIA process.

1.4 Details of the Applicant

Project applicant:	Brakfontein Solar Power Plant (Pty) Ltd.		
Business reg. No./ID. No.:	Pending		
Contact person:	Mr Charles Berrington		
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Telephone:	021 461 3382	Fax:	086 568 2737
E-mail:	charlie@ae-amd.co.za		

1.5 Details of the Environmental Assessment Practitioner who prepared the report

Regulation 16(1) in Government Notice Regulation (GNR) No.543, published in terms of section 24(5), read with section 44 of the National Environmental Management Act (NEMA) (Act No. 107 of 1998), requires that an applicant must appoint an Environmental Assessment Practitioner (EAP) at own cost to manage the application. Regulation 18 furthermore specifies that an EAP appointed must be independent and have expertise in conducting environmental impact assessments, including knowledge of the Act, these Regulations and any guidelines that have relevance to the proposed activity.

The applicant has appointed the Centre for Environmental Management (CEM), North-West University (NWU) to manage and facilitate the EIA process for the proposed development. This report was prepared by Theunis Christoffel Meyer, who is currently employed as Senior Environmental Manager at the CEM and acts as Environmental Assessment Practitioner (EAP) for this project.

Project consultant/firm:	Centre for Environmental Management, North West University
ID. no.:	611129 5087 083

Environmental Assessment Practitioner:	Mr Theunis Meyer		
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Professional affiliation(s) (if any)	<ul style="list-style-type: none"> • South African Council for Natural Scientific Professions (400029/08) • Member of the IAIAAsa and IAIA • Ordinary Member of the GSSA • Senior EMS Auditor, SAATCA (E058) 		

1.5.1 Expertise of EAP to carry out scoping procedures

Mr Meyer holds Masters Degrees in Pasture Science and Environmental Management from the Free State and North-West Universities respectively, as well as an Honours Degree in Wildlife Management from the University of Pretoria. Mr Meyer has 13 years' experience in the environmental management and environmental assessment fields and another 13 years as plant ecologist.

In terms of professional affiliation, he is registered as Professional Natural Scientist with the South African Council for Natural Scientific Professions in Ecological Science and in Environmental Science. He is also a member of the Grassland Society of Southern Africa (GSSA), the South-African chapter of the International Association of Impact Assessment (IAIAAsa) and a registered Senior Environmental Management System (EMS) Auditor with the Southern African Auditor Training and Certification Association (SAATCA).

Mr Meyer has been involved in numerous EIAs throughout South Africa, conducted in terms of the Environmental Conservation Act (No. 73 of 1989) (ECA), the National Environmental Management Act (No. 107 of 1998) (NEMA) and the Mineral and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA). His responsibilities in these EIAs included the facilitation of the EIA and public participation processes, the identification and assessment of environmental impacts and the development of environmental management plans and programmes.

He also co-ordinated the popular environmental law public short course at the CEM and regularly lectures on the legal EIA requirements to various audiences. These presentations cover the requirements of Section 24 of the NEMA (No. 107 of 1998), of the regulations published in GN R.543 and the activity lists published in GN R.544, GN R. 545 and GN R.546, as well as the guidelines published by Department of Environmental Affairs (DEA), Gauteng Department of Agriculture and Rural Development (GDARD) and the Western Cape Department of Environmental Affairs and Development Planning (DEADP).

As registered EMS Auditor, Mr Meyer is regularly involved in environmental legal compliance audits for clients to establish their legal non-compliances. He has also

assisted a number of organizations in identifying not only environmental impacts, but also the root causes of these impacts (environmental aspects) during the development of ISO 14001 Environmental Management Systems.

1.5.2 Independence of EAP

Neither the CEM, nor any of the specialist sub-consultants on this project are affiliated to Brakfontein PV Solar Power Plant (Pty) Ltd. The CEM also does not have any interest in secondary developments that may arise out of the authorisation of the proposed project. Furthermore, Mr Meyer and the specialist sub-consultants meet the requirements for independence as none of them has and will have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the EIA Regulations, 2010; has and will have vested interest in the proposed activity proceeding; and also has no, and will not engage in conflicting interests in the undertaking of the activity.

2 Need and desirability of the proposed activity

2.1 Need for the Brakfontein Solar PV Plant

South Africa is a developing country where the energy demand is ever increasing. Because it is well-endowed with coal resources; the country relies heavily on coal to meet its energy needs. South Africa has developed an efficient, large-scale, coal-based power generation system that provides low-cost electricity, through a grid system that is being extended to rural areas, to millions of residential, commercial and institutional consumers.

South Africa recognises that the emissions of greenhouse gases, such as carbon dioxide from the use of fossil fuels such as coal and petroleum products has led to increasing concerns worldwide about global climate change. Although coal is likely to remain, from a financial viewpoint, an attractive source of energy for South Africa, the South African Government is committed to make due contribution to the global effort to mitigate greenhouse gas emissions. For this purpose, the Government has developed an enabling environment through the introduction of fiscal and financial support mechanisms, within an appropriate legal and regulatory framework, to allow renewable energy technologies to compete with fossil-based technologies, so that the renewable energy industry can operate, grow, and contribute positively to the South African economy and to the global environment.

South Africa is well endowed with abundant renewable energy resources that can be converted to productive energy uses and serve as sustainable alternatives to fossil fuels. It experiences some of the highest levels of solar radiation in the World. It has a considerable solar resource potential for solar water heating applications, solar photovoltaic and solar thermal power generation. Due to the fact that the utilisation of these resources have in the past not been cost competitive in many locations, when compared to South Africa's fossil-based energy supply industry, these resources have remained largely untapped.

The National Development Plan 2030 formulated certain principles to guide *'the transition to an environmentally sustainable low-carbon economy, moving from policy to process to action'*. The Brakfontein Solar PV Plant meets these principles in being just, sustainable, ethical, least regret, taking a regional approach, being accountable and transparent.

The North West Province, including the Taung area, has great potential to generate electricity from solar energy and the proposed project will contribute significantly to achieving government's objectives in this regard.

2.2 Desirability of the Brakfontein Solar PV Plant

2.2.1 Local socio-economic value of the Brakfontein Solar PV Plant

The Greater Taung Local Municipality (GTLM), which covers an area of 5 639 km², is predominantly rural, with approximately 106 widely-scattered villages. It has an unemployment rate of approximately 50%, a dependency ratio of more than 75 and experienced negative economic growth between 2001 and 2011. The vision of the GTLM is to be a prosperous community that is socially, culturally and economically sustainable, while the mission is initiating and promoting sustainable socio-economic

growth. One of the objectives of the GTLM Department Infrastructure Development, as stated in the 2012/2017 IDP, is to: “*explore opportunities of feeding clean energy into the national energy grid*”.

This development can play an integrated part in fulfilling this objective, as well as the municipal vision and mission. It will benefit the local community of Taung and Reivilo directly by generating limited skilled and unskilled employment opportunities for the local community during the construction and operational phases, thereby contributing to poverty alleviation in the region. During the construction phase of the project, 3310 person-month employment opportunities will be created (or approximately 140 jobs per month for a period of two years) at an expected value of R48 million, 64% of which will accrue to previously disadvantaged individuals. Twenty-six permanent jobs will be created during the operational phase of the PV facility, with an expected current value of employment activities of R3.76 million during the first 10 years, 60% of which will accrue to previously disadvantaged individuals.

The proposed development will in this respect also address the objectives of the New Growth Plan that focus on facilitating growth in sectors able to create employment and encouraging investment.

It will also benefit the local community indirectly through benefits associated with the provision of accommodation, catering and local spending by contractors. The development will also contribute to the development and maintenance of service infrastructure in the area.

The Independent Power Producers (IPP) Renewable Procurement Programme requires that every project must have a proportion of participation/ownership by local communities. This requirement will most probably be met through the establishment of an Educational Trust that will:

- provide scholarships to school leavers from the Taung and Reivilo area who wish to study engineering, science or maths at tertiary level;
- subsidise science and maths teachers' salaries at schools in the Taung and Reivilo area so as to enable those schools to attract good and well qualified teachers and;
- subsidise the purchase of laboratory equipment and mathematical teaching aids in schools in the Taung and Reivilo area.

2.2.2 Additional socio-economic value of the Brakfontein Solar PV Plant

The PV facility will benefit society in general by alleviating the pressure of electricity generation from coal in a small way and also contributing to the government's target for renewable energy. The expected capital value of the development will be R1.6 billion on completion and the expected annual income that will be generated by or as a result of the development is R260 million. The proposed development is also consistent with the Renewable Energy Independent Power Producer Procurement Programme as initiated by the Department of Energy.

The proposed development site is currently used for extensive livestock farming. Although there will be negative environmental impacts associated with the proposed development, it is anticipated that the benefits of the construction and operation of the

PV facility will outweigh the negative impacts thereof, provided that the proposed mitigation measures are implemented effectively.

3 Description of the proposed activity and alternatives

According to subsection 24(4) of the NEMA, procedures for the investigation, assessment and communication of the potential impact of activities must ensure, as a minimum, with respect to every application for an environmental authorisation, investigation of the potential impact of the activity and its alternatives on the environment and assessment of the significance of that potential impact.

Regulation 28 (1) in GN R. 543 specifies that a scoping report must contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping, and must include, inter alia a description of the proposed activity and of any feasible and reasonable alternatives that have been identified.

3.1 Description of the proposed activity: Brakfontein Solar PV Plant

In the regulations, published in terms of section 24(5) read with section 44 of the NEMA (No. 107 of 1998) in GN R.543, "activity" is defined as an activity identified in any notice published by the Minister or MEC in terms of section 24D(1)(a) of the Act.

Photovoltaic technology involves the conversion of sunlight into electricity through the use of thin layers of materials known as semi-conductors, which absorb solar radiation that energizes their electrons to produce static electricity, which is then converted into direct current (DC) electricity. The physical processes involved in the conversion of sunlight into electricity include light absorption, electron transport and recombination mechanisms, which are determined by the electro-optical properties of the silicon material.

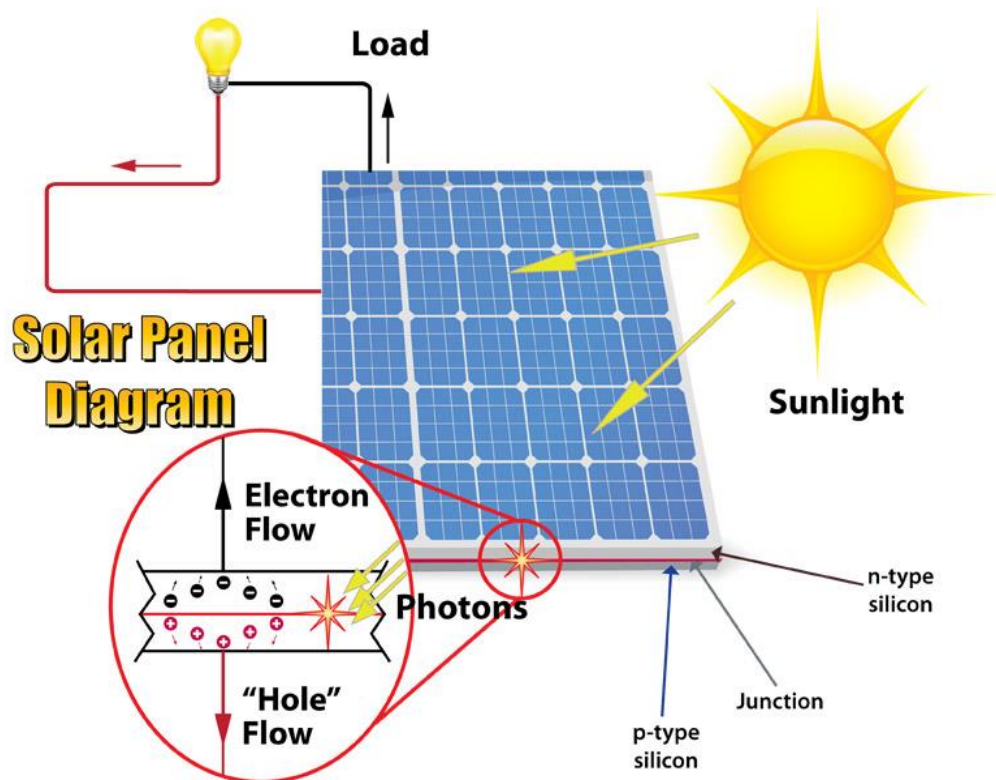


Figure 1: Schematic diagram illustrating the photovoltaic technology.

Individual PV cells are made of a semiconductor material (such as silicone), linked and placed behind a protective glass sheet to form a PV panel. A single cell is sufficient to power a small device such as an emergency telephone, however to produce 75 MW, the proposed plant will require numerous panels arranged in multiple/arrays. The angle at which the panels are positioned is dependent on the latitude of the proposed PV plant and will be adjusted to optimize for summer or winter solar radiation characteristics.

The proposed PV plant will convert the incident solar energy into direct current (DC) electricity by means of photovoltaic modules. The electricity is transferred to DC/AC inverters to convert it to alternating current (AC). The inverters will be matched to the selected PV module technology, and in turn connected to a step-up transformer in order to raise the voltage up to the grid requirements.

3.1.1 Description of infrastructure and facilities

Photovoltaic power plants have a wide range of technologies that can be considered for incorporation into the plant. The solar PV industry is furthermore a rapidly developing industry, where the advances in the general efficiencies of the technology and the reduction of production costs are such that it would not be feasible to commit to specific technologies and equipment manufacturers at this stage of the project. During the EIA and bid process the developer will request credible EPC Contractors to submit proposals with respect to the technology to be used and possible equipment suppliers for the PV plant. These will include the PV module manufacturer, the capacity of the modules, the support structure or tracker type, and manufacturer, the inverter type, etc.

The Engineering, Procurement and Construction will be carried out by an EPC Contractor in accordance with good engineering practice, with due diligence, care and professionalism. The design of the facility and the selection of equipment will be tailored for the specific site conditions. The aim of the design and lay-out of the facility will be to maximise electricity generation through exposure to solar radiation, while minimising infrastructure, operational and maintenance costs, as well as environmental and social impacts. Therefore the project description will be in generic terms and will not specify specific infrastructure brands and capacities.

Despite the limitations above, the components of a PV power plant is known and will be discussed below. The impacts of these components will also be identified and assessed during the EIA process.

The construction of the facility will be the first phase of establishing the 75 MW facilities that will generate electricity from solar radiation. The proposed PV power plant will consist of the following infrastructure (Figures 2 and 3):

- Arrays of photovoltaic panels for the generation of electricity;
- Dedicated inverters to convert the electricity from DC to AC;
- Concentrator boxes;
- Transformation centre;
- Electrical reticulation, consisting of underground cabling between the photovoltaic panels and dedicated inverters;

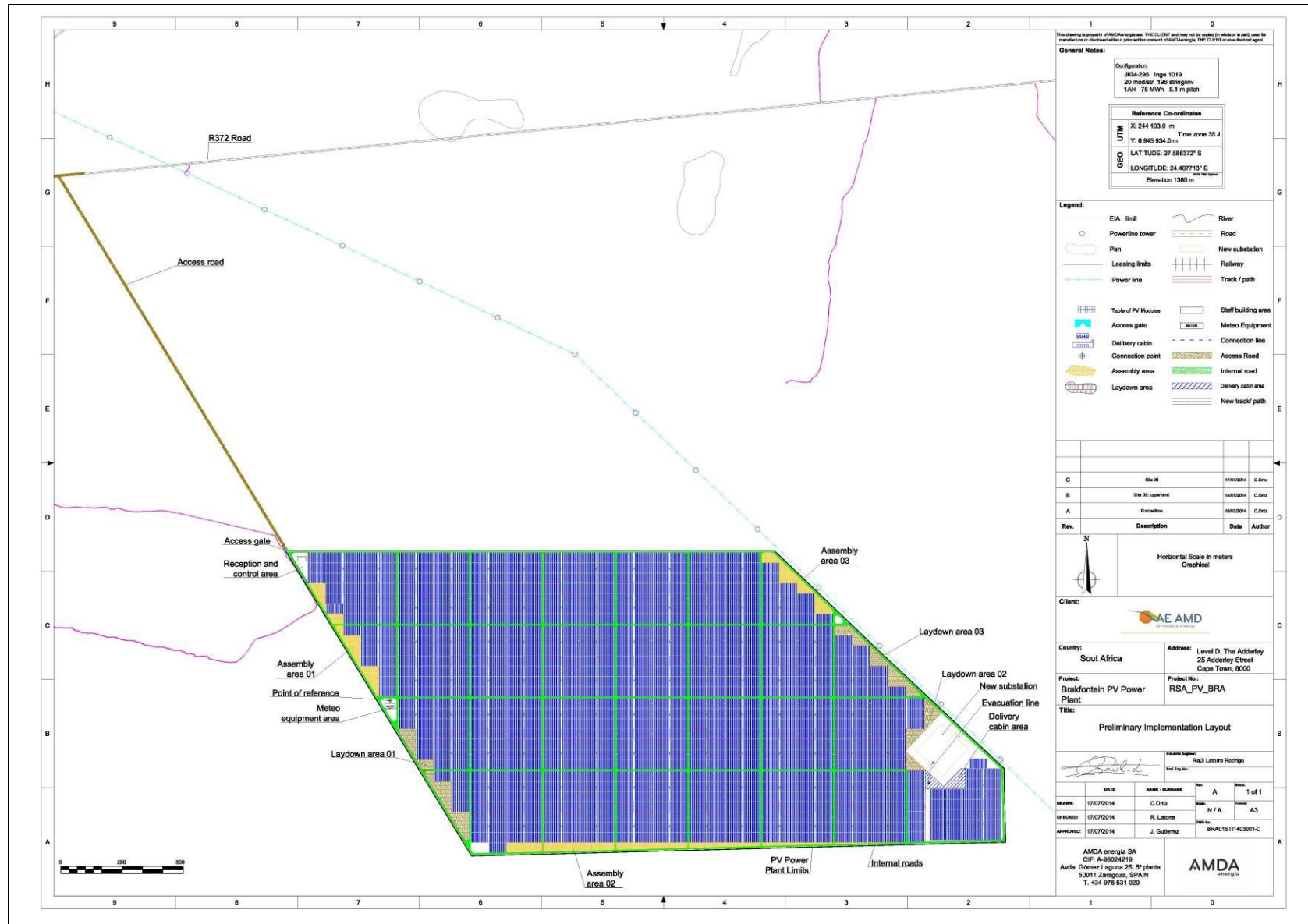


Figure 3: Preliminary implementation layout of the proposed Brakfontein solar PV plant.
CEM 2014-061 Rev07
Brakfontein EIA Scoping report

- An overhead 132 kV power line connecting into the proposed constructed substation;
- A new sub-station will be constructed as part of the project. In a loop-in-loop-out connection, a switching sub-station is either integrated into the distribution centre part of the facility or established close to the existing power lines.
- Evacuation line;
- Trenches.
- Administrative/security buildings;
- Buildings and services (Control room, small office and workshop);
- Parking area;
- Perimeter fencing;
- Security system;
- Internal and perimeter service roads of 3 m surface width and 5 m reserve width and a main access road of 10 m reserve width;
- Meteorological stations;
- Drainage systems;
- Lightning protection system;
- Auxiliary supply;
- Emergency power supply; and
- Monitoring and control systems.

3.1.1.1 PV modules

There are various types of PV modules defined according to the materials used:

- Si-Monocrystalline;
- Si-Polycrystalline;
- Thin Film and;
- High Concentrated.

There is a requirement in the REIPPP programme to use only technology with a proven track record at utility scale, so Thin Film technology does not yet qualify. Currently the trend for utility scale facilities such as this is towards polycrystalline module technology.

There are also a wide range of PV module manufacturers in the market. Local content is an important bid criterion in the REIPPP programme and the use of locally manufactured or assembled PV modules are preferred to help the local economy, local job creation and local communities.

3.1.1.2 Structures

In order to support the PV modules, a steel structure must be used. There are different options that will be considered:

- a fixed or rack structure,
- a 1-axis tracker (horizontal, vertical or polar axis) and
- a 2-axis tracker.

The current trend is towards rack structures or possibly horizontal single axis trackers because of the superior production rates and cost effectiveness.

There are numerous rack and tracker manufacturers in the market and the system chosen will depend on the proposals by the EPC contractors. The materials commonly used in support and tracker structures are galvanized steel, stainless steel or anodized aluminium

3.1.1.2.1 Fixed or track structures

A typical rack or fixed structure (Figure 4) will usually have two rows of 20 modules (2 strings). The modules are placed in portrait arrangement. The foundation technology is usually a direct-driven (rammed) installation, with a ramming depth subject to the soil characteristics.



Figure 4: A typically rack or fixed structure.

The design of the fittings for fixing the modules to the rack structures will enable thermal expansion of the metal without transferring mechanical loads that could affect the integrity of the modules. The structure will probably have anti-theft bolts.

3.1.1.2.2 Single-Axis tracker

With a typical horizontal single-axis tracker (Figure 5) the PV modules are attached to beams on the rotating structure. A number of these trackers are placed adjacent to each other and driven by a common rotation mechanism. This allows for a modular design with each module having a single central motor and a number of trackers. This simplifies design and allows for an extremely efficient use of space.

The system produces more output than rack structures yet still has extremely low energy consumption. Precision electronics with GPS input and proprietary positioning algorithms ensure optimum angle is controlled at all times.



Figure 5: STI-Norland tracker.

3.1.1.3 Foundations

Depending on the structure or tracker that is selected, the following foundation options may be considered.

- Mass concrete block foundation;
- Ground screw foundation;
- Concrete pile foundation and;
- Vibratory driven steel pile foundation.

For fixed or rack structures, either driven steel piles or small concrete footings are cast in the ground for the foundations. These concrete foundations are typically of the same size as for small buildings.

The preferred technology for trackers is the vibratory driven steel pile foundation, however given the hard ground conditions expected on the site; a steel pile in concrete in a pre-drilled hole is the more likely foundation solution. Depending on the ground conditions a concrete pile might need to be used. A detailed geotechnical study will be carried out in order to provide data for the selection of the foundation.

3.1.1.4 Electrical reticulation

The electrical reticulation will comprise of a DC component from the PV modules to the inverters and an AC component from the inverters to the Eskom connection.

The electrical reticulation within the PV plant, from the trackers or racks through to the distribution centre will all be underground. Because trenching is likely to be costly, given the amount of shallow rock on the site, a number of alternatives focused on reducing the amount of trenching will be investigated. Possibilities are suspending all the electrical cables associated with a tracker underneath the tracker, either loosely, in bundles or in cable trays or refining the solar field layout to reduce the trench lengths.

3.1.1.5 Trenches

Trenches are usually excavated by a tractor loader backhoe (TLB), but given the quantity of trenching within the PV plant, specialist trenching machines might be used.

Depending on the number of cables that run in each trench and the voltage level, the dimensions of the trenches can vary. The typical width is 0.6 m and depth is 1.10 m. The

cable or cables are laid in a suitable bedding material, usually sand. If the in-situ material is not suitable for bedding, then bedding material will be sourced from local commercial sources. The trenches are then backfilled using suitable material that came from the trench excavations.

Because trenching is likely to be costly, given the amount of shallow rock on the site, a number of alternatives focused on reducing the amount of trenching will be investigated.

3.1.1.6 Concentrator boxes

The concentrator boxes are outdoor switchgear boxes or cabinets where the electrical wires from the tracker or rack group are collected. The concentrator boxes are designed for outdoor conditions and are mounted on a concrete base.

3.1.1.7 Transformation centre

The transformation centre will be a concrete or steel prefabricated structure built to house the transformer and the associated protection devices. In the transformer, voltage level will be transformed from 0.38kV to 132kV.

3.1.1.8 Distribution centre

The distribution centre is where all the medium voltage lines coming from the various transformers are collected. The distribution centre is housed in a pre-fabricated or a steel structure and a MV line runs from here to the Eskom substation.

3.1.1.9 Auxiliary power supply

The PV plant requires a continuous power supply for the plant monitoring and control systems, the perimeter and security systems, lights and air-conditioning etc. for the buildings. If trackers are used, a small power supply is also required for the operation for the trackers.

The most cost effective and efficient source for the auxiliary power supply is usually directly from the Eskom substation.

3.1.1.10 Emergency power supply

In order to ensure the continuous operation of the monitoring and security systems, a backup diesel generator system, with at least 2 hours of autonomy, may be installed.

3.1.1.11 New sub-station and evacuation line

A new sub-station will be constructed as part of the project. In a loop-in-loop-out connection, a switching sub-station is either integrated into the distribution centre part of the facility or established close to the existing power lines.

The electricity from the PV power plant will be evacuated via a 132kV overhead line to the Eskom grid. The evacuation line will be a loop-in-loop-out connection to Eskom's Pering to Ganspan 132kV line that runs on the north and eastern sides of the site.

The connection point for the evacuation line will be determined by the Eskom grid connection requirements and the line will be designed and built to Eskom's standards. The alignment of the evacuation line will be determined by the proposed grid connection point

and any environmental sensitivity between the PV power plant and the grid connection point.

3.1.1.12 Site drainage

The site currently drains naturally and the intent of a surface managed storm water system is to facilitate the natural drainage and avoid flow concentrations and ponding. The drainage system proposed will be a surface management system based on not collecting storm-water, but rather spreading or distributing it over the site to soak away or drain slowly similarly to the normal pre-development flows. This will be achieved by minor earthworks and infrastructure, but mostly by sensitive planning. This avoids soil erosion and downstream flooding problems normally associated with the concentrated flows.

The detail drainage and storm water surface management design will be done during the detail planning stage.

3.1.1.13 Access and internal roads

Access to the site will be from the R372 via a new road to be constructed down the western side of the property. Passing bays will be provided at strategic points on the access road to allow the circulation of two trucks in opposite directions at the same time during the construction and operational phases.

The access off the R372 will be designed and built to the Road Authority's standards. The Road Authority's consent will be sought during the permitting process and construction will only commence once the detail design and specifications have been approved by the Road Authority. Sufficient space will be allowed at the access points to ensure that the vehicles do not stack up on the road while being processed through security. The road alignment and layout will also take the necessary safety precautions into account.

During the operational phase access around the site is generally only required for security and routine inspection purposes. The internal road layout will be designed in order to ensure ease of access to every rack or tracker structure and the horizontal geometry will be designed to enable the turning of trucks to provide access for cleaning operations or maintenance.

The access and internal roads will be constructed gravel roads, 3m wide with wide, open side drains forming part of the drainage system. The roads will be built with a minimum of 400mm depth of sub-grade preparation and a compacted aggregate base layer of up to 150mm thick. The base layer will either be of material obtained from the excavations on site or aggregate from a commercial source. If the material is suitable, material from the trenching or earthworks associated with the roads, storm water system, solar field and building construction will be used for road construction.

Depending on the available road building material used to build the roads and the amount of resultant dust during the operational phase, dust palliatives of surfacing will be investigated at that stage.

3.1.1.14 Parking area

There will be a small hardstand parking / lay-down area near the buildings, to be used during the operational phase.

3.1.1.15 Site buildings and services

The buildings and facilities needed to service a PV plant include a control room (20m²) (for the security personnel), a small office (20m²), ablution facilities and kitchen area (20m²), a small workshop (40m²) and a store of 300 to 400m². In the proposed PV plant layout, space for the buildings is allocated near the entrance to the site. There will be no accommodation facilities on-site.

One option for the buildings and facilities is to construct a farm type shed of approximately 480m² (40m x 12m), with the control room and offices etc. inside the building. However, given the fact that the electricity generating license is only awarded for a 20 year term, it is likely that temporary buildings such as park-homes or containers will be provided.

The following services will be provided for the buildings:

- Electricity will be provided from the new sub-station that will be constructed.
- The control room and the office will have air-conditioning
- Enviro-loo toilets will be used. These toilets are used in a number of National Parks and Nature Reserves and do not require a water supply. The toilets operate by separating the solid and water waste and then drying the waste by evaporation. The dry solids are removed and can safely be spread as compost in the field.
- The source for the small amount of potable water required for use by the site personnel will need to be determined during the planning process. The water will most probably be sourced from a borehole. Should the available water need treatment then the appropriate equipment will be used. If the water is sourced from a borehole for industrial purposes, it may trigger an application for a water authorisation.

3.1.1.16 Security system

The perimeter, access points and site will be monitored by closed circuit television (CCTV) cameras with infrared/night vision technology and passive intrusion detection systems. The security lighting will be linked to the passive intrusion detection systems, so that it will not be on all night.

3.1.1.17 Perimeter fencing

The proposed perimeter fence will either be a 2.4 m weld-mesh or wire and netting fence that is electrified or a double barrier consisting of two 2.4 m high electric fences with only electric strands placed about 2 or more metres apart. The electrification will be non-lethal. A single 6 m automated sliding gate will be provided for vehicular access, as well as a single 1 m wide gate for pedestrians.

Given the high material value of the solar field material, especially the cables and PV modules, and the risk of theft, it is imperative that the perimeter fences and security systems are installed and commissioned with the initial site establishment activities, so that there is a secure enclosed site prior to the high value materials arriving on site. The process will be to first fence off a delivery, storage and processing area within the site as a start and then to erect the perimeter fence and security, restricting the movement of site personnel to the actual construction site.

3.1.1.18 Lightning protection system

To protect the PV plant, equipment and personnel from lightning strikes, a lightning protection system composed of masts and surge arresters will be installed. This system will be designed by a specialist and will comply with the South African laws and standards. Although current lightning protection designs only allow for low height protection on the individual structures, provision has been made in the applications for 15m high conductor masts.

3.1.1.19 Monitoring & control systems

A Supervisory Control and Data Acquisition (SCADA) system will be installed to monitor, control and alarm plant or regional operating systems from a central location.

There are to a SCADA system consists of three main elements: various remote telemetry units (RTU's), communications and a human machine interface (HMI). Each RTU effectively collects information at a site, such as from the inverters or met station. Communications transmit that information from the various plant or regional RTU sites to a central location, and occasionally return instructions to the RTU. Communication within a plant will be by data cable, wire or fibre-optic, while regional systems most commonly utilize radio or the internet. The HMI is essentially a PC system running powerful graphic and alarm software programs and displays the information in an easily understood graphics form, archives the data received, transmits alarms and permits operator control as required. The real time information can be monitored remotely, typically by the O&M Company and the plant owners etc.

3.1.1.20 Meteorological stations

There will be a number of meteorological stations installed on the site in order provide adequate meteorological data to evaluate the PV plant performance. The typical meteorological station will include all or some of the following elements:

- A 3 m high lattice structure for the support of the systems;
- Pyranometer for tilted radiation and a horizontal pyranometer for global radiation;
- Ambient temperature sensor with natural ventilation anti-radiant shield;
- Anemometer at 5 m height;
- A vane to measure the wind direction;
- Temperature sensor module;
- Humidity sensor;
- Data logger;
- GSM/GPRS modem and;
- UPS or non-stop power supply system.

3.2 Description of feasible and reasonable alternatives identified

3.2.1 Site alternatives

The ideal PV plant site meets the following criteria:

- High solar irradiation area to allow for the maximisation of the solar energy received;

- Flat to gently sloped terrain to allow for the optimisation of the layouts and minimum interference with respect to shadows etc. between the individual trackers;
- Northern orientation or no obstructions to the north to allow for efficiency;
- Not on high potential agricultural land to avoid conflicts with competing activities and the national priority of food security;
- Not in environmentally sensitive areas e.g. in wetlands or in close proximity to water courses;
- Suitable ground conditions to ensure the stability of the structures and reduce construction costs;
- Adjacent to an existing sub-station on the grid to avoid the necessity of transmission infrastructure;
- Existing capacity at the sub-station and local grid to receive the generated electricity so the electricity generated by the plant can be used locally from the time of commissioning, thus avoiding infrastructure costs and transmission losses and costs; and
- Potential to expand the facility - about the sub-station having a reasonable demand growth and there being space for the expansion of the PV plant.

The site selection process was based on locating sites that matched as many as possible of the ideal criteria for the development of a PV electricity generation plant. The selection criteria filtered out alternative sites which are in some way or another not suitable for the development of a PV facility that is environmentally and economically sustainable. This resulted in the current site being selected, first on a regional level and thereafter on a farm level.

A possible alternative site was also investigated at Lykso sub-station, just off the N14 road between Vryburg and Kuruman. This specific alternative was, however, abandoned, because there was no capacity in the Eskom grid for a large PV facility (75MW) and grid upgrading plans had been shelved.

3.2.2 Site lay-out alternatives

The area required for the development of a PV plant is normally determined by a number of factors. Given that this site is mostly flat, with a northern orientation, the key factors determining the size of the site needed are the production capacity of the proposed PV power plant and the technology used.

The density of development is highest for fixed rack systems and lowest if two axis trackers are used. Typically fixed rack systems would take up about two to three ha/MW and a PV plant using trackers would need approximately 4.5 to six ha/MW. The current trend in the highly competitive Independent Power Producer market implies that either fixed structures or horizontal single axis tracking systems will most likely be used. Thus the 75 MW plant could use about 250 hectares.

For purposes of the EIA it was decided to investigate a larger area than required for the PV plant envisaged in the application. This is done in order to provide for sufficient space for the preferred technology, as well as to provide for flexibility in the positioning and detail layout of the power plant in response to on site or environmental conditions or

for design optimisation. In such a way, the design could be modified to prevent and/or mitigate potential significant environmental impacts through a modified site-layout.

3.2.3 Technological and structural alternatives

As mentioned above, the selection of equipment and the design of the facility will be tailored for the specific site conditions to maximise electricity generation through exposure to solar radiation, while minimising infrastructure, operational and maintenance costs, as well as environmental and social impacts.

4 Description of the property and environment that may be affected

4.1 Baseline description of the environment that may be affected by the activity

4.1.1 Location of the proposed site for the Brakfontein Solar PV Plant

The proposed Brakfontein Solar PV plant will be situated in the quarter degree square 2724DA on the farm Brakfontein 897 HN (SG code TOHN00000000089700000), approximately 35 km west of Taung and 27 km east of Reivilo in the North West Province (Figures 6 and 7). The approximate centre of the proposed development is at S27.584966°, E024.417409°.

4.1.2 Climate

The farm Brakfontein 897 HN is situated in the summer and autumn rainfall region of South Africa with very dry winters. The mean annual precipitation of the region is approximately 400mm. The region has a mean annual potential evaporation of 2 728mm, which is almost seven times higher than the mean annual rainfall.

Frost is frequent to very frequent in the winter months, with temperatures reaching lows of -5°C in the winter months and highs of above 35°C in the summer months.

4.1.3 Topography

The proposed development site is situated approximately 1 360m above sea level. From Taung, the topography gently ascends onto the Ghaap Plateau towards Reivilo. The topography at the Brakfontein site is very flat with little to no variation in topography (Figure 8).

4.1.4 Geology and soils

The geology consists of surface limestone of the Tertiary to Recent age, as well as dolomite and chert of the Campbell Group (Griqualand West Supergroup, Vaalian Erathem) (Figure 9). The geology supports shallow soil (0.1 – 0.25m) of the Mispah and Hutton soil forms, with very little erosion.

Numerous dolerite and diabase dykes are also present in the area. These dykes vary from a few meters to more than 50 m thick and are vertical to near vertical. Dyke localities can normally be identified by distinct linear surface limestone ridges elevated some 0.5 to 2 m higher than the surrounding areas. Two such dykes occur in the vicinity of the proposed development site.

4.1.5 Vegetation

The proposed development site is situated in the Savannah biome, Eastern Kalahari Savannah Bioregion. The vegetation on and around the proposed development site forms part of the Ghaap Plateau Vaalbosveld vegetation unit. This vegetation unit is characterised by a well-developed shrub layer with *Tarchonanthus camphoratus* and *Acacia karoo*, as well as an open tree layer consisting of *Olea europaea* subsp. *africana*, *Acacia tortilis*, *Acacia mellifera*, *Zizphus mucronata* and *Rhus lancea*. Table 1 provides a summary of the important taxa within the Ghaap Plateau Vaalbosveld, while Figure 8 provides an idea of some vegetation at the proposed development site.



Figure 6: Proposed site location of the Brakfontein Solar PV plant relevant to the towns of Reivilo (west) and Taung (east).

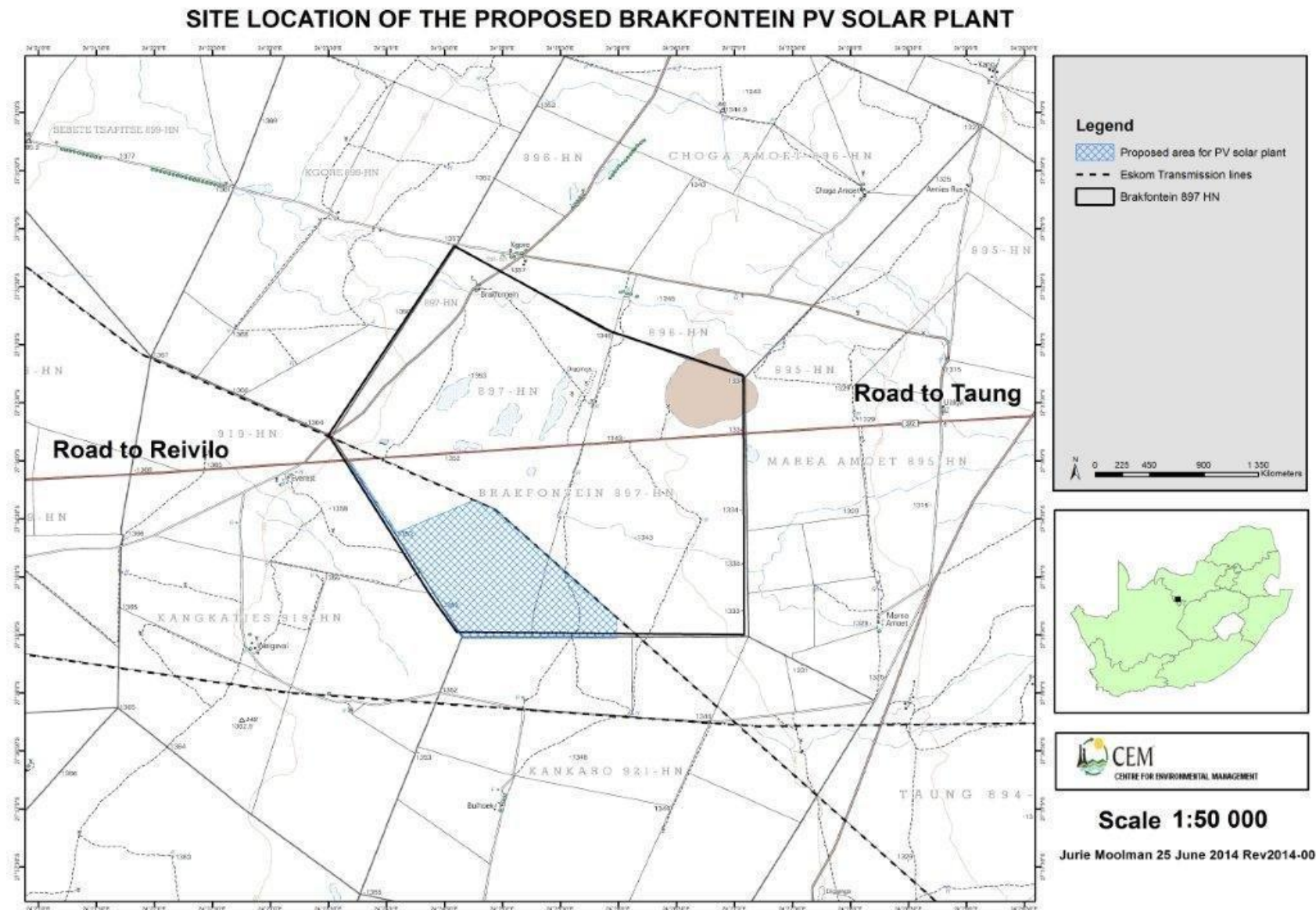


Figure 7: 1:50 000 locality map, indicating the property on which the proposed PV power plant will be constructed
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Figure 8: Topography and vegetation of the proposed development site on the farm Brakfontein 897 HN.

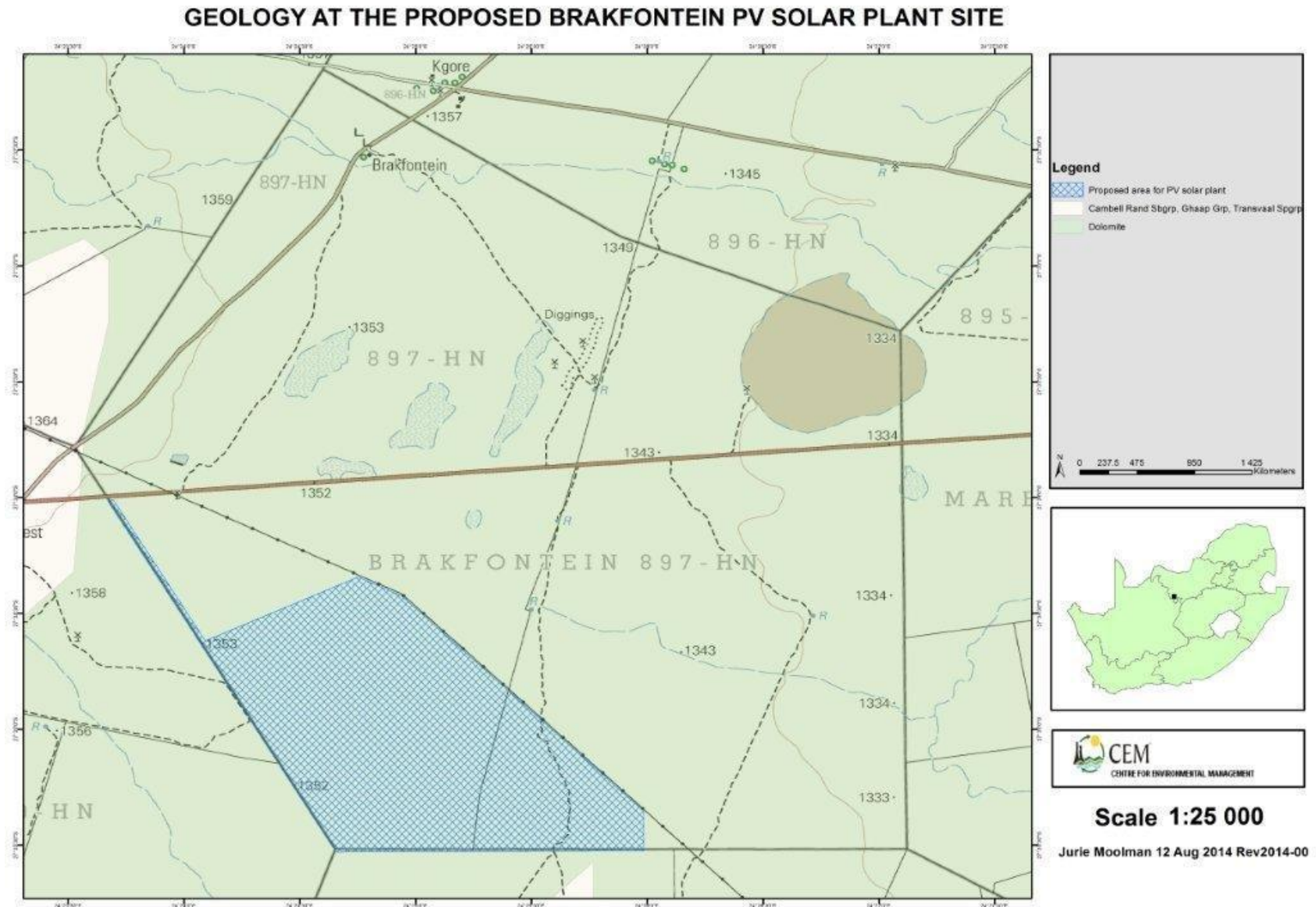


Figure 9: 1:50 000 geology map, indicating the geology underlying the proposed Brakfontein Solar PV plant.
CEM 2014-061 Rev07

Table 1: Dominant species within the Ghaap Plateau Vaalbosveld vegetation unit.

Vegetation Type	Ghaap Plateau Vaalbosveld
Tall trees:	<i>Acacia erioloba</i>
Small trees:	<i>Acacia mellifera</i> subsp. <i>detinens</i> , <i>Rhus lancea</i> , <i>Acacia karroo</i> , <i>Acacia tortilis</i> subsp. <i>heteracantha</i> , <i>Boscia albitrunca</i>
Tall shrubs:	<i>Olea europaea</i> subsp. <i>africana</i> , <i>Rhigozum trichotomum</i> , <i>Tarchonanthus camphoratus</i> , <i>Ziziphus mucronata</i> , <i>Diospyros austro-africana</i> , <i>Diospyros pallens</i> , <i>Ehretia rigida</i> subsp. <i>rigida</i> , <i>Euclea crispa</i> subsp. <i>ovata</i> , <i>Grewia flava</i> , <i>Gymnosporia buxifolia</i> , <i>Lesserthia frutescens</i> , <i>Rhus tridactyla</i>
Low shrubs:	<i>Acacia hebeclada</i> subsp. <i>hebeclada</i> , <i>Aptosimum procumbens</i> , <i>Chrysocoma ciliata</i> , <i>Helichrysum zeyheri</i> , <i>Hermannia comosa</i> , <i>Lantana rugosa</i> , <i>Leucas capensis</i> , <i>Melolobium microphyllum</i> , <i>Peliostomum leucorrhizum</i> , <i>Pentzia globosa</i> , <i>P. viridis</i> , <i>Zygophyllum pubescens</i>
Succulent herbs:	<i>Hertia pallens</i> , <i>Lycium cinereum</i>
Semi parasitic Shrub:	<i>Thesium hystrix</i>
Woody climbers:	<i>Asparagus africanus</i>
Graminoids:	<i>Antheophora pubescens</i> , <i>Cenchrus ciliaris</i> , <i>Digitaria eriantha</i> subsp. <i>eriantha</i> , <i>Enneapogon scoparius</i> , <i>Eragrotis lehmanniana</i> , <i>Schmidtia pappophoroides</i> , <i>Themba trianda</i> , <i>Aristida adscensionis</i> , <i>A. congesta</i> , <i>A. diffusa</i> , <i>Cymbopogon pospischilii</i> , <i>Enneapogon cenchroides</i> , <i>E. desvauxii</i> , <i>Eragrostis echinochloidea</i> , <i>E. obtusa</i> , <i>E. rigidior</i> , <i>E. superba</i> , <i>Fingerhuthia africana</i> , <i>Heteropogon contortus</i> , <i>Sporobolus fimbriatus</i> , <i>Stipagrotis uniplumis</i> , <i>Tragus racemosus</i>
Herbs:	<i>Barleria macrostegia</i> , <i>Geigeria filifolia</i> , <i>G. ornativa</i> , <i>Gisekia africana</i> , <i>Helichrysum cerastioides</i> , <i>Heliotropium ciliatum</i> , <i>Hermbstaedtia odorata</i> , <i>Hibiscus marlothianus</i> , <i>H. pusillus</i> , <i>Jamesbrittenia aurantiaca</i> , <i>Limeum fenestratum</i> , <i>Lippia scaberrima</i> , <i>Selago densiflora</i> , <i>Vahlia capensis</i> subsp. <i>vulgaris</i>
Succulent Herb:	<i>Aloe grandidentata</i>

4.1.6 Hydrology

The proposed development site on the farm Brakfontein 897 HN is situated in the Lower Vaal Water Management Area, in quaternary catchment C33A in the Ghaap Plateau Hydrogeological Region.

4.1.6.1 Surface water

The most significant surface water resource in the region of the proposed Brakfontein development site is the Dry Harts River, approximately 30 km east of the site. Only two

delineated wetlands are noted within the surroundings of the proposed development site, both to the north of the proposed development site of the solar PV plant (Figure 10).

No significant surface water resources are located on the proposed development site. On-site surface water features consist of small pan-like structures (Figure 11) which form in rainy seasons and a few drainage lines. Due to the slow infiltration rate of the dolomitic surfaces in the area, these pan-like structures are likely to contain surface water for some months after excessive rain events before infiltration or evaporation.



Figure 10: Small pan-like feature scattered across the proposed development site.

4.1.6.2 Ground water

The Ghaap Plateau is fed by underground water from aquifers (Figure 12) in the underlying dolomites. Good supplies of ground water are located in fractures and leached zones associated with dykes and faults, as well as on the contact with chert beds. High yielding boreholes are located some distance away from the thick dykes (40-80 m from dyke contact) and closer to the thin dykes (within 10 m from contact).

The recharge rate of aquifers located nearby the town of Reivilo is summarised in Table 2.

Table 2: Recharge rate of aquifers near the town of Reivilo.

Quaternary Catchment	Locality	Area (km ²)	Mean annual precipitation (mm)	Estimated recharge (mm/a)	Recharge as % of mean annual precipitation
C33B	Reivilo	2831	422	25.51	6.05

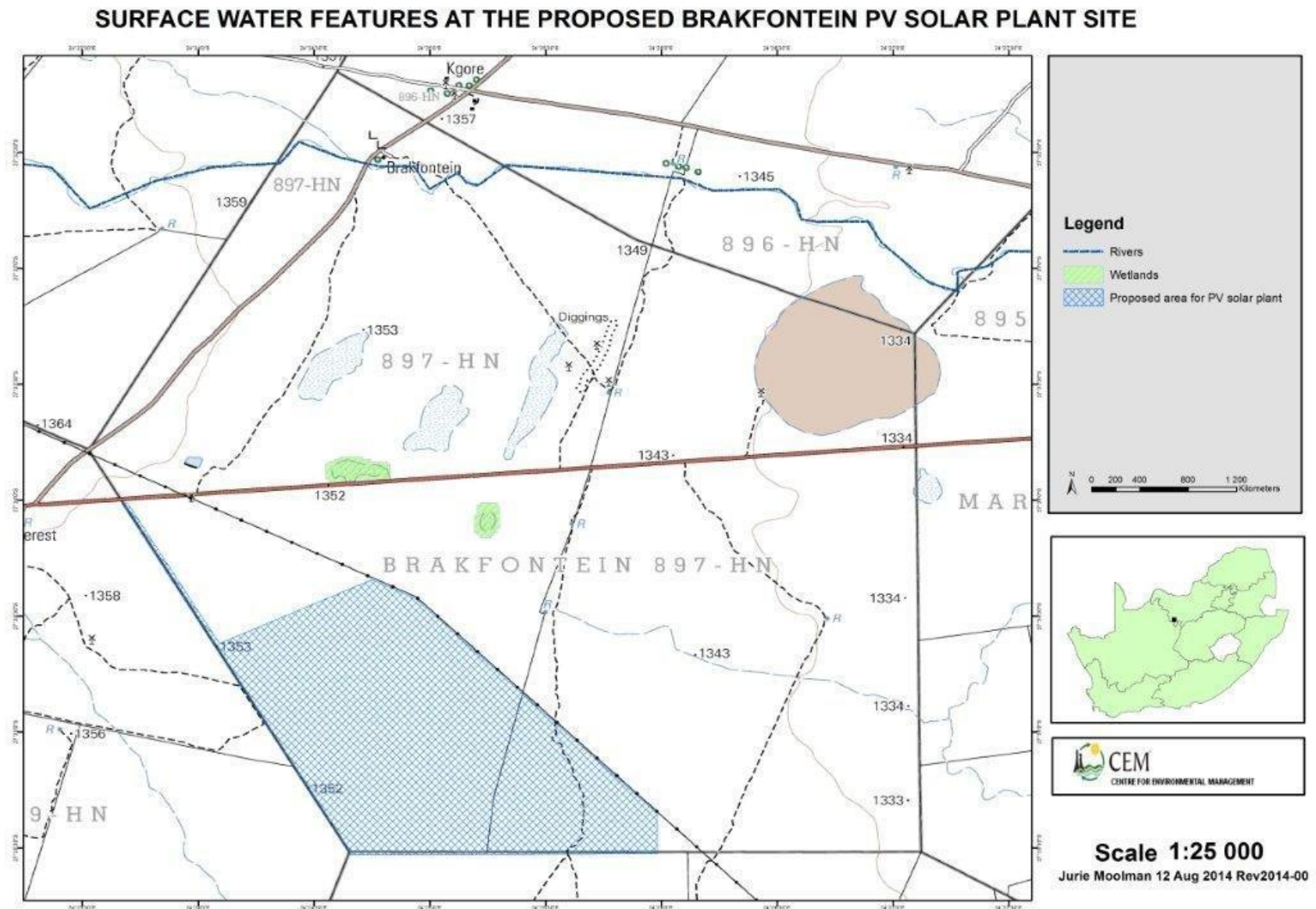


Figure 11: Surface hydrology on and around the proposed development site.

CEM 2014-061 Rev07

Brakfontein EIA Scoping report

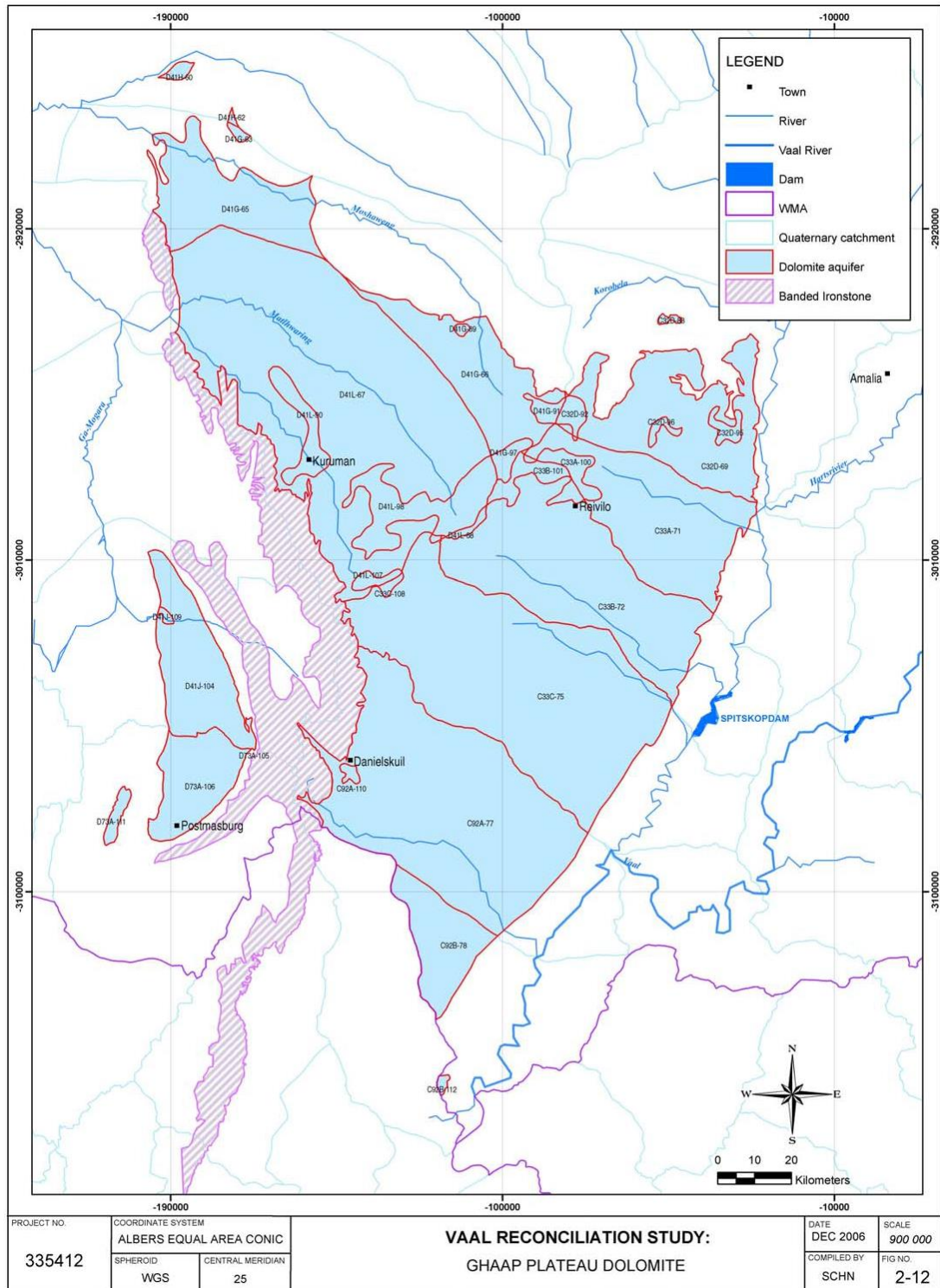


Figure 12: Underlying dolomites on the Ghaap Plateau which supply most of the water for agricultural and domestic purposes in the region.

4.1.7 Land use

At present, the farm Brakfontein 897 HN is used exclusively for agricultural purposes. Cattle farming is the main agricultural activity on the farm, with the farm having a carrying capacity of approximately 25 ha per head of cattle. This means that the proposed development site could sustain approximately 10 head of cattle per year.

5 Applicable legislation and guidelines

The EIA process will follow the regulations as stipulated in GN R. 543. The Scoping and EIA Process is being undertaken in terms of the NEMA. Relevant legislation and guidelines considered are summarized in Table 2.

Table 3: Relevant legislation and guidelines considered.

Title of legislation, policy or guideline	Authority
National Environmental Management Act (No. 107 of 1998) (NEMA)	DEA/NWDREAD
National Water Act (Act 36 of 1998) (NWA)	DWA
National Environmental Management: Biodiversity Act (No. 10 of 2004)	DEA/NWDREAD
National Environmental Management: Waste Act (Act 59 of 2008)	DEA/NWDREAD
National Heritage Resources Act (Act 25 of 1999) (NHRA)	SAHRA
Conservation of Agricultural Resources Act (Act 43 of 1983) (CARA)	DAFF
Subdivision of Agricultural Land Act (Act 70 of 1970) (SALA)	DAFF
National Veld and Forest Fire Act (Act 101 of 1998) (NVFFA)	DAFF
Local Government: Municipal Systems Act (Act 32 of 2000) (LG:MSA)	Local Government
Mineral & Petroleum Resources Development Act (Act 28 of 2002)	DMR
Civil Aviation Act (Act 13 of 2009) (CAA)	CAA
Promotion of Access to Information Act (Act 2 of 2000) (PAIA)	DEA/NWDREAD
Scoping, Integrated Environmental Management, Information Series 2	DEA/NWDREADT
Stakeholder engagement, Integrated Environmental Management (IEM), Information Series 3	DEA/NWDREAD
Specialist studies, IEM, Information Series 4	DEA/NWDREAD
Impact significance, IEM, Information Series 5	DEA/NWDREAD
Cumulative effects assessment, IEM, Information Series 7	DEA/NWDREAD
Alternatives in EIA, IEM, Information Series 11	DEA/NWDREAD
Environmental Management Plans, IEM, Information Series 12	DEA/NWDREAD
Environmental impact reporting, IEM, Information Series 15	DEA/NWDREAD
Sector Guidelines for Environmental Impact Assessment (GN 654 of 2010)	DEA/NWDREAD
Companion to the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations of 2012 Part I-V (GN 603 of 2010)	DEA/NWDREAD
Guideline on Need and Desirability in terms of the Environmental Impact Assessment Regulations, 2010 (GN R 9891 of 2014)	DEA/NWDREAD

6 Authorisations required for the proposed activity

6.1 Authorisations required in terms of the NEMA and NWA:

The proposed activity will trigger the following listed activities published in terms of the GN R. 544, GN R. 545 and GN R. 546 published in GG 33306 of June 2010 (Table 4):

Table 4: Listed activities published in GN R. 544, 545 and 546.

Activity number & listing notice	Activity description
Activity 10 (GN R. 544 of 2010)	<i>The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV.</i>
Activity 22 (GN R. 544 of 2010)	<i>The construction of a road, outside urban areas, (i) with a reserve wider than 13,5 meters or; (ii) where no reserve exists where the road is wider than 8 meters.</i>
Activity 1 (GN R. 545 of 2010)	<i>The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 MW or more.</i>
Activity 11 (GN R. 545 of 2010)	<i>The construction of canals, channels, bridges ... buildings exceeding 50 m² in size; or infrastructure or structures covering 50 m² or more, where such construction occurs within a watercourse or within 32 m of a watercourse, measured from the edge of a water course.</i>
Activity 18 (GN R. 545 of 2010)	<i>The infilling or depositing of any material of more than 5 m³ into, or the dredging, excavation, removal or moving of soil, sand, ... pebbles or rock of more than 5 m³ from a watercourse, ... but excluding where such infilling, depositing, dredging, excavation, removal or moving is for maintenance purposes undertaken in accordance with a management plan agreed to by a relevant environmental authority.</i>
Activity 14 (GN R546 of 2010)	<i>The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.</i>

6.2 Authorisations required in terms of the NWA:

The proposed activity will also trigger a number of water uses in terms of the National Water Act (No. 36 of 1998) and therefor require water use authorisation (Table 5).

Table 5: Water uses published in the NWA (No. 36 of 1998).

Section number	Activity description
Section 21(a)	<i>Taking water from a water resource</i>
Section 21(c)	<i>Impeding or diverting the flow of water in a watercourse.</i>
Section 21(i)	<i>Altering the bed, banks, course or characteristics of a watercourse.</i>

6.3 Authorisations required in terms of the Minerals and Petroleum Resources Development Act (MPRDA) (No. 28 of 2002):

The proposed activity will require a Section 53 approval by the Minister of Mineral Resources to use the surface of the land in any way which may be contrary to any object of this Act or which is likely to impede any such object (sterilisation of the surface). Should it be necessary to establish a borrow pit for gravel needed for construction purposes, a mining permit will be applied for.

6.4 Authorisations required in terms of the National Heritage Resources Act (No 25 of 1999):

Should the specialist study uncover any cultural/heritage resource artefacts or sites on the proposed development site, permission may be sought from the South African Heritage Resources Agency to remove or destroy such artefacts and disturb or destroy such sites if these cannot be incorporated in the final site-layout.

6.5 Authorisations required in terms of the Aviation Act (No. 13 of 2009):

The Civil Aviation Regulations (CAR Part 139.01.33, 1997) issued in terms of the Aviation Act, as amended, regulates obstacles outside aerodromes or heliports which may impact on navigational airspace and affect aviation safety. Information will be submitted to the Civil Aviation Authorities so that they can ensure that any infrastructure constructed complies with the regulation requirements for obstacle limitations and markings outside an aerodrome or heliport.

6.6 Authorisations required in terms of the Subdivision of Agricultural Land Act (No 70 of 1970):

The Act prohibits the lease in respect of a portion of agricultural land of which the period is 10 years or longer, or which is renewable from time to time at the will of the lessee, either by the continuation of the original lease or by entering into a new lease, indefinitely or for periods which together with the first period of the lease amount in all to not less than 10 years, without the consent of the Minister of Agriculture, Forestry and Fisheries. Similarly, no right to a portion of agricultural land, whether surveyed or not, shall be sold or granted for a period of more than 10 years or to the same person for periods aggregating more than 10 years, or advertised for sale or with a view to any such granting, except for the purposes of a mine without such consent. The consent of the Minister of Agriculture, Forestry and Fisheries for the long term lease of the land (20 years) of the proposed development site will be sought before the project commences.

7 Description of environmental issues and potential impacts, including cumulative impacts

Regulation 28 (1) of GN R. 543 states that a scoping report must contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping, including a description of environmental issues and potential impacts, including cumulative impacts, that have been identified

Different types of impacts may occur from the undertaking of an activity. The impacts may be positive or negative and may be categorized as being direct (primary), indirect (secondary) or cumulative impacts.

Direct impacts are impacts that are caused by the activity and generally occur at the same time and at the place of the activity (e.g. noise generated by blasting operations on the site of the activity). These impacts are usually associated with the quantifiable.

Indirect impacts of an activity are indirect or induce changes that may occur as a result of the activity (e.g. reduction of water in a stream that supplies water to a reservoir that supplies water to the activity). These types of impacts include all the potential impacts that do not manifest immediately when the activity is undertaken or which occur at a different place as a result of the activity.

Cumulative impacts are impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities (e.g. discharge of nutrients and heated water to a river that combine to cause algal bloom and subsequent loss of dissolved oxygen that is greater than the additive impacts of each pollutant). Cumulative impacts can occur from the collective impacts of individual minor actions over a period of time and can include both direct and indirect impacts.

GN R. 543 defines “cumulative impacts”, in relation to an activity, as the impact of an activity that in itself may not be significant, but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.

The identification of the potential impacts of an activity on the environment should include impacts that may occur during the commencement, operation and termination of an activity. In order to identify impacts it is important that the nature of the proposed activity is well understood so that the potential impacts that are associated with the activity can be understood.

The process of identification and assessment of impacts includes the:

- determination of current environmental conditions in sufficient detail so that there is a baseline against which impacts can be identified and measured;
- determination of future changes to the environment that will occur if the proposed activity does not take place;
- an understanding of the activity in sufficient detail to understand its consequences; and
- the identification of impacts which are likely to occur if the activity is undertaken.

Potential environmental impacts of the proposed development have been identified during consultative processes between the consultant, the client and some technical specialists based upon their professional experience and judgement. Additional potential environmental impacts were identified during the public participation process.

7.1 Potential environmental impacts

The following potential environmental impacts (with associated receptors/indicators) have been identified. See also table 6 for potential environmental impacts:

- Dust generation during construction on site and access roads;
- Machinery and vehicle noise during the construction phase;
- Increase of traffic on the R372 between Taung and Reivilo.
- Biodiversity impact;
 - Vegetation clearance during the construction phase
 - Habitat transformation during construction and operational phases;
 - Impacts on ecological functioning due to the habitat transformation; and
 - Potential of veld fires during the site establishment, construction and operational phases;
- Water related impacts;
 - Water use during the construction and operational phases;

The temporary water requirement for the construction stage of the PV plant is mainly for the production of concrete for the structure and tracker foundations, for road construction and for general construction process and dust control etc. About 9Ml would be needed for the construction stage of a 75MW solar PV plant. This equates to an average draw down rate of about 80kl per day during the construction period.

A PV plant does not require much water for operation. The only requirements are water for the domestic needs of the security and operational personnel and for the cleaning of the PV panels. A 75MW PV plant requires about 3200kl per annum during the operational phase. This equates to about 8700l/day. Noting that the majority of the water is required for cleaning, the water could be obtained from the local authority and brought to site by a vehicle equipped especially for the cleaning operation. The water for the “domestic” use could similarly be transported to site.

- Potential surface water pollution due to soil erosion or spillage of pollutants;
- Potential storm water flooding during the construction phase;
- Temporary sterilisation of land use potential;
- Soil impacts;

- Soil pollution due to soil or spillage of pollutants during construction and operational phases; and
- Soil erosion during construction and operational phases;
- Removal, disturbance and or destruction of heritage resources – graves, artefacts on site;
- Visual and aesthetic impacts;
- Social impacts;
 - Negative impact of construction activities on farm workers;
 - Negative impacts of migrant labour during the construction phase on the local communities;
 - Negative impacts of migrant workers on farm security, theft and poaching;
- Socio-economic impacts;
 - Negative socio-economic impacts of veld fires on farming activities;
 - Positive impacts of job creation during the construction and operational phases;
 - Local sourcing of construction materials during the construction phase.

Table 6: Potential environmental impacts associated with the various phases of the proposed development

Environmental medium	Environmental impact	Phase		
		Construction	Operational	Decommissioning
Water	Surface water pollution	X	X	X
	Hydrology	X	X	X
Soil	Soil pollution	X	X	X
	Soil erosion	X	X	X
Air	Air pollution (dust)	X	X	X
	Noise	X		X
Biodiversity	Vegetation clearance			
	Terrestrial habitat transformation	X	X	X
	Aquatic habitat transformation (sediment loading)	X	X	X
	Ecological function	X	X	X
Land use	Land use potential	X	X	X
	Agricultural production	X	X	X
Social	Negative social impacts	X		X
	Positive social impacts	X	X	
Visual	Visual & aesthetic impacts	X	X	X
Economy	Economic impacts	X	X	X

Environmental medium	Environmental impact	Phase		
		Construction	Operational	Decommissioning
Traffic	Traffic impacts	X	X	X
Economic		X	X	X

7.2 Manner in which the environment may be affected by the proposed activity

The construction of a PV plant normally incorporates some or all of the following activities:

- Protection of natural features by creating no-go areas;
 - Marking identified features;
 - Prevent access to identified features that are to be protected;
- Earthworks;
 - Site clearing
 - Levelling of site;
 - Excavations of soil and rock;
- Establishment of storm water management and other services infrastructure;
 - Design of storm water management and other services infrastructure;
 - Construction of storm water management and other services infrastructure;
 - Maintenance of storm water management and other services infrastructure;
- Handling and storage of soil and/or fill material;
 - Excavation and storage of in situ soil;
 - Excavation of soil and/or fill material off-site;
 - Dumping of imported soil and/or fill material on site;
 - Levelling and compaction of site;
- Transportation of bulk materials to, on and from the site;
 - Soil and/or fill material;
 - Hydrocarbon fuels, grease, lube oils and solvents;
 - Cement, concrete and other construction materials;
 - Building rubble and fill material;
 - Other solid and liquid waste;
- Provision and operation of on-site staff facilities and activities;
 - Provision of potable water;
 - Provision and operation of temporary toilets;
- Management of vehicles, machinery and equipment;

- Construction and maintenance of access road;
- Operation of construction vehicles, machinery and equipment;
- Maintenance of construction vehicles, machinery and equipment;
- Handling and use of hazardous materials;
 - Storage and use of hydrocarbon fuels, grease, lube oils & solvents on site;
 - Storage and use of cement;
 - Storage and use of herbicides and pesticides;
- Waste generation, storage and disposal;
 - Temporary storage of solid waste;
 - Temporary storage of liquid waste;
 - Disposal of solid and liquid wastes
- Construction of the PV plant ;
 - Construction of foundations;
 - Erection of PV solar panels;
 - Construction of inverters, concentrator boxes and transformation centre;
 - Construction of electrical reticulation and distribution centre;
 - Construction of the substation;
 - Construction of electricity connection line to the substation;
 - Removal of all temporary construction structures and services;

The operation of a PV plant normally incorporates some or all of the following activities:

- Maintenance of PV modules;
- Provision of security;
 - Use of water and electricity;
 - Operation of ablution facilities;
- Provision of fire-fighting services;
- Maintenance of storm water management and supporting infrastructure;
 - Pest and invader plant control;
 - Erosion management
 - Maintenance of fire breaks
- Handling and use of hazardous materials;
 - Storage and use of hydrocarbon fuels, grease, lube oils & solvents on site;
 - Storage and use of cement;
 - Storage and use of herbicides and pesticides;

- Waste generation, storage and disposal;
 - Temporary storage of solid waste;
 - Temporary storage of liquid waste;
 - Disposal of solid and liquid wastes

Some of the above activities are more harmful to the environment than others. Intrusive activities directly impacts on the environment by destroying natural and cultural features and replacing it with the built feature, while other indirectly affect the environment, but can proceed over extended periods. The bottom line is that the existing natural environment will be replaced by a man-made environment.

Negative environmental impacts will be prevented as far as is reasonably practical, even if it requires a redesign of the proposed facilities. The negative environmental impacts that cannot be prevented will be minimised as far as is reasonably practicable. Whatever natural features remain once the PV plant with its associated infrastructure has been developed, will be rehabilitated.

8 Public Participation

8.1 Steps taken to notify potentially interested and affected parties of the application

8.1.1 Pre-application consultation with competent authority

The EIA Process commenced with pre-application consultation meetings between the EAP, client and the competent authority, the Department of Environmental Affairs and the Department of Water Affairs. The pre-application consultations were held to discuss issues surrounding the inclusion of Activity 14 as listed in G NR. 546 of NEMA, as well as the availability of water during the construction and operational phases of the proposed development (*Appendices 1, 2 and 3*).

The potential impact of the development was also communicated with the SKA South Africa, who did not expect any significant impacts on the SKA project (*Appendix 4*).

8.1.2 Submission of Application form for Environmental Authorisation

The EIA Process commenced with the submission of the application form to DEA on 26 June 2014. The application has been assigned and the DEA reference number 14/12/16/3/3/2/731. A letter acknowledging the receipt of the application from the DEA was received on 11 July 2014 (*Appendix 5*). Letters of acknowledgement of the EA application were also received from the North-West Department of Rural, Environmental and Agricultural Development (*Appendix 6*), the Department of Agriculture, Forestry and Fisheries (DAFF) (*Appendix 7*) and the South African Heritage Resources Agency (*Appendix 8*).

8.1.3 Invitations to Interested and Affected Parties (I&APs)

After identification of the relevant I&APs, letters were sent to these inviting them to register to participate in the EIA process. Notices were also published in the Stellalander Newspaper on 23 July 2014 in English and Setswana, inviting the public to register as I&APs for the process. Site notices with a similar invitation in English, Setswana and Afrikaans were also displayed on the site of the proposed development, at the Reivilo Police Station, at a telecommunication station along the Taung Reivilo Road, 10km west of Taung, as well as at the Medical Centre in Taung.

- **Letters to I&APs**

See *Appendices 9 & 10*.

- **Notices in newspapers**

See *Appendix 14*.

- **Site notices**

See *Appendices 15 & 16*.

8.1.4 I&AP registration

The details of all the (mandatory and registered) I&APs are captured in the I&AP register (Table 7). A background information and response document was distributed to all registered I&APs (*Appendix 11*). A number of completed registration forms were received as part of the registration process (*Appendix 12*).

Table 7: Register of identified and registered interested and affected parties.

Institution	Name & Surname	Postal address	Email	Telephone	Fax
Dr Ruth Segomotsi Mompoti District Municipality					
DRSM District Municipal Manager	Zevo Lesego	PO Box 21, Vryburg, 8600			
Greater Taung Local Municipality					
Gretaer Taung Municipality: MM	Katlego Gabanakgosi	Private Bag X1048, Taung, 8580			053 994 2248
Greater Taung Municipality: Acting Municipal Manager	Godfrey Huma	Private Bag X1048, Taung, 8580			
Greater Taung Spatial Planning	Siphosethu Jijana		jjianas@taunglm.co.za		
Greater Taung Municipality: Planning and Corporate Services	Godfrey Huma		humag@taunglm.co.za		
Ward Councillors	Andries Scholtz	PO Box 67, Reivilo, 8595			0823384726
Traditional Council					
Batlhaping Ba-Ga Phuduhcwane Traditional Council	Kgosikgolo TF Mankuroane	Private Bag X534, Taung Village, 8584			
National Departments and Agencies					
Department of Environmental Affairs	Muhammad Essop		messop@environment.gov.za	012 395 1734	
Department of Agriculture, Forestry and Fisheries (DAFF), Directorate: Land Use and Soil Management	Anneliza Collett		AnnelizaC@nda.agric.za	012 319 7508	012 329 5938
DAFF, Delegate of the Minister	Ms Mashudu Marubini	Private Bag X120, Pretoria, 0001	MashuduMa@daff.gov.za	012 319 7619	
DAFF AgriLand Liaison	Ms Thoko Buthelezi	Private Bag X120, Pretoria, 0001	ThokoB@daff.gov.za	012 319 7634	
DAFF	D Nhlaka		nhlakad@daff.gov.za		
Department Water Affairs (DWA), Kimberley Regional Office	Lerato Mokhoantle	Private Bag X1601, Kimberley, 8301			
DWA Kimberley Regional Office	Gawie van Dyk	Private Bag X1601, Kimberley, 8301	vandykg@dwa.gov.za	053 836 7600	
DWA Kimberley Regional Office	A Abrahams	Private Bag X1601, Kimberley, 8301	abrahamsa@dwa.gov.za	053 836 7600	

Institution	Name & Surname	Postal address	Email	Telephone	Fax
Department of Rural Development and Land Redistribution (DRDLR): Town and Regional Planner	Tshepiso Monnakgotla		Tmannakgotla@ruraldevelopment.gov.za	012 312 8681	
DRDLR: Environmental Planner	Mpho Mashua		AMMashau@ruraldevelopment.gov.za	012 312 8681	
DRDLR: Chief Town and Regional Planner	Magezi Enock Mhlanga		memhlanga@ruraldevelopment.gov.za	012 312 8668	
South African Heritage Resources Agency	Phillip Hine		phine@sahra.org.za		
Provincial Department					
North-West Department of Rural, Environmental and Agricultural Development (NWREAD)	B Moselakgomo		bmoselakgomom@nwpag.gov.za		
NW READ	J Mautsu				
NW READ	Steven Mukhola		smukhola@nwpag.gov.za		086 659 4060
North-West Department of Co-operative Government and Traditional Affairs, Chief Town and Regional Planner	M van Heerden		MVanHeerden@nwpag.gov.za		
Eskom					
Eskom Senior Environmental Advisor, GC Land Development, Megawatt Park D1 Y38	John Geeringh	P O Box 1091, Johannesburg, 2000	john.geeringh@eskom.co.za	083 632 7663	
Farmers Association					
Reivilo Farmers Association, Chairperson	Helmien Haddad van den Berg	PO Box 47, Reivilo, 8595	helmien@vodamail.co.za		
Reivilo Farmers Union, Chairperson	Fanie Smit	PO Box 319, Vryburg, 8600		082 944 0385	
Adjacent landowners					
	Charl Wolhuter	PO Box 307, Magogong, 8575	cwol@lantic.net	082 809 4375	
	Sarel and Lucy du Plessis	PO Box 63, Reivilo, 8595		082 773 2402	
	Louis Spruyt	PO Box 230, Reivilo, 8595		082 975 6947	

Institution	Name & Surname	Postal address	Email	Telephone	Fax
	Ben-Karel Van Aswegen	PO Box 101008, Moreleta Plaza, 0167	ben@gadmin.co.za	082 308 0654	
	Chris Lombaard	PO Box 6582, Flamwood, 2572	chrisl@motla.co.za	079 694 5811	
Other Registered I&Aps					
	Kagiso Botha	PO Box 56, Reivilo, 8595		084 689 3236	
	David Lebang Motheo	PO Box 56, Reivilo, 8595		084 765 2231	
Vidigenix Pty Ltd	Armandt Joubert	514 Chironia Ave. Helderkruijn, 1724	administration@vidigenix.co.za	011 764 3731	

8.1.5 Public meeting

A public meeting was held at the Taung Library on 25 August 2014. After being contacted by 1 of the neighbours, an additional private public meeting was also held with one of the neighbours and her spouse, Mrs Lucy and Mr Sarel du Plessis were on 17 September 2014 at the residence of the I&APs.

See *Appendices 17, 18, 19, 20 & 21* for minutes of the public meetings.

8.2 Proof of notice boards, advertisements and notices notifying potentially interested and affected parties of the application

8.2.1 Submission of notices

- **Formal notices were sent to identified I&APs as explained above.**

See *Appendices 9 & 10*.

- **Formal notice informing I&APs of availability of Scoping Report for review and comments**

See *Appendix 13*.

- **Newspaper advertisements were placed in the Stellalander newspaper**

See *Appendix 14* for copies of the newspaper advertisement.

- **Site notices advertisements were placed on and off-site to inform potential interested and affected parties of the proposed activity and associated public participation process.**

See *Appendices 15 & 16* for photographs of the site notices.

8.3 A summary of issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues

See Table 8 and *Appendix 20*.

8.4 Copies of the minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants

- PowerPoint Presentation delivered during the public meeting held on Monday, 25 August 2014 (*Appendix 17*)
- Minutes of the public meeting held on Monday, 25 August 2014 (*Appendix 18*)
- Attendance register of the public meeting (*Appendix 20*).
- Minutes of the private meeting facilitated by Mr Theunis Meyer on Wednesday 17 September 2014 (*Appendix 21*)

Table 8: A summary of issues raised by interested and affected parties and the response of the EAP to those issues.

Interested and Affected Party	Date of receipt	Issue	Response
Mr Ben-Karel van Aswegen (Portion 2 Farm Kangkatjes 919 HN)	4 August 2014	<ul style="list-style-type: none"> Who are all the parties that will benefit from this project? 	
		<ul style="list-style-type: none"> What Mega Watt will be generated and contributed to Eskom grid? 	The solar PV plant will generate 75MW and will feed directly into the Eskom grid.
		<ul style="list-style-type: none"> Have all neighbours and relevant Farmers Associations been notified? 	Yes, all neighbours and relevant Farmers Associations have been notified by means of either e-mail, registered letters or fax or a combination of the fore mentioned.
		<ul style="list-style-type: none"> Who will control and manage the construction of the site and thereafter the running of the project? 	The applicant, Brakfontein Solar PV Plant Pty (Ltd) will manage the construction site and the running of the project.
		<ul style="list-style-type: none"> Time period of construction and time period of the project? 	The period of construction can be between 15 to 18 months and the project is foreseen to operate for a period of at least 20 years.
		<ul style="list-style-type: none"> What will happen to the rest of the property? 	The rest of the property will continue to operate as a cattle farm.
		<ul style="list-style-type: none"> Extent of Surveys to be conducted and over what period? 	<p>The specialist studies will be undertaken during the months of September and October 2014 and will include the following:</p> <ul style="list-style-type: none"> Vegetation specialist study; Heritage Phase 1 specialist study; Paleontological specialist study; Visual assessment study; Geohydrological specialist study; Agricultural specialist study and; Faunal specialists study.

Interested and Affected Party	Date of receipt	Issue	Response
Mr Ben-Karel van Aswegen (Portion 2 Farm Kangkatjes 919 HN)	4 August 2014	<ul style="list-style-type: none"> Poaching (snaring, killing and hunting) and theft of wild life, cattle and other livestock and general theft on surrounding properties will increase due to the influx of people not from the area. 	
		<ul style="list-style-type: none"> Very high risk of veld fires will increase due to camp fires etc. especially in dry and winter seasons. 	No fires will be allowed on the development site for cooking purposes. The PV site will have fire breaks in place as required by law. Fire fighting equipment will also be available in case of veld fires. The applicant will also join the local fire fighting association.
		<ul style="list-style-type: none"> Very high risk of water use (over consumption) and pollution (sewerage, chemical, oil and diesel spills) to natural shallow underground water supply. 	On average 9MI will be used during the construction phase, 60kl/day peak. 1.25MI per annum during the operation phase (that is, 3400l/day), mainly for periodical cleaning of the panels.
		<ul style="list-style-type: none"> Monitoring natural water levels underground and rain flow and storm water. 	
		<ul style="list-style-type: none"> Noise and dust pollution. 	Noise will only be generated during the construction phase of the project. However, this will have a minimal impact on the surrounding areas, seeing that the site is isolated from any residential areas and will be at least 300m from the R372.
		<ul style="list-style-type: none"> No electricity sources. How will cooking and lighting facilities be supplied on site? 	Electricity will be supplied by a generator.
		<ul style="list-style-type: none"> High increase in littering and refuse removal. 	

Interested and Affected Party	Date of receipt	Issue	Response
Mr Ben-Karel van Aswegen (Portion 2 Farm Kangkatjes 919 HN)	4 August 2014	<ul style="list-style-type: none"> How many people to be employed during construction and what time period? How many people to be employed after construction and for what time period? Where will these people be sourced from? Skills of people required? 	
		<ul style="list-style-type: none"> Salaries offered to employees. 	
		<ul style="list-style-type: none"> Buildings to be constructed on site? 	A control room (20m ²), a small office (20 m ²), ablution facilities and kitchen area (20 m ²), a small workshop (40 m ²) and a store of 300 to 400 m ² will be constructed on site.
		<ul style="list-style-type: none"> Who will enforce the environmental management plan? 	
		<ul style="list-style-type: none"> Seriousness of ALL impacts on the environment. 	Will be determined during the impact assessment phase of the environmental impact assessment.
		<ul style="list-style-type: none"> How many holes for footings for the solar panels to be drilled and/or dig and then concreted? Huge damage to land and high risk of erosion. How will the land ever be rehabilitated? 	
		<ul style="list-style-type: none"> Where will employees be accommodated (after hours)? 	During the construction phase, no personnel, except the security personnel, are allowed to be on site after hours. Construction personnel will be accommodated in the nearby towns of Reivilo and Taung.

Interested and Affected Party	Date of receipt	Issue	Response
Mr Ben-Karel van Aswegen (Portion 2 Farm Kangkatjes 919 HN)	4 August 2014	<ul style="list-style-type: none"> New roads and existing roads. Condition and maintain. 	<p>New access and internal roads shall be constructed as all-weather type, 3m wide with wide, open side drains forming part of the drainage system. These roads will be maintained by the developer.</p> <p>Existing roads (R372) will be maintained during the construction phase to such an extent that it should be in the same condition as it was prior to construction.</p>
		<ul style="list-style-type: none"> Socio-Economic. 	
		<ul style="list-style-type: none"> Site Security. 	<p>A perimeter fence of 2.4 m weld-mesh or wire and netting fence which is electrified or a double barrier consisting of two 2.4 m high electric fences with only electric strands placed about 2 or more metres apart will be erected. The electrification will be non-lethal. A single 6 m automated sliding gate will be provided for vehicular access as well as a single 1 m wide gate for pedestrians.</p> <p>Furthermore, the perimeter, access points and general site will be monitored by CCTV (closed circuit television) cameras infrared/night vision technology and passive intrusion detection systems. The security lighting will be linked to the passive intrusion detection systems, so that it will not be on all night</p>
Mr. Louis Spruyt (Foreman of the farm Brakfontein 897 HN)	25 August 2014	<ul style="list-style-type: none"> Veld fires. 	<p>No fires will be allowed on the development site for cooking purposes. The PV site will have fire breaks in place as required by law. Fire fighting equipment will also be available in case of veld fires. The applicant will also join the local fire fighting association.</p>
		<ul style="list-style-type: none"> Sterilization of cattle due to generation of electricity by PV modules. 	<p>To be investigated during the agricultural specialist study.</p>

Interested and Affected Party	Date of receipt	Issue	Response
Mr. Kagiso Piet Botha (Boipelo & Reivilo community representatives)	25 August 2014	<ul style="list-style-type: none"> High rate of unemployment – youth and women. 	
Mr and Mrs du Plessis	17 September 2014	<ul style="list-style-type: none"> Increase in theft: 	Mr Theunis Meyer asked what would be a reasonable solution to this problem. Mr du Plessis responded that more visible policing in the area would suffice.
		<ul style="list-style-type: none"> Preparation of food on site: 	Mr Theunis Meyer explained that no contractor will be allowed to prepare food on site during any phase of the proposed development.
		<ul style="list-style-type: none"> General waste: 	The developer will be responsible to remove waste from site to a landfill in the surrounding area.
		<ul style="list-style-type: none"> Toilets: 	The developer will provide Enviro-loo's. These toilets separate the solid and liquid wastes and will be emptied on a regular basis.
		<ul style="list-style-type: none"> Transport of workers: 	Workers will be transported to and from the development site via busses.
		<ul style="list-style-type: none"> The R372 road: 	The road will be maintained by the developer and left in the condition it was prior to development.
		<ul style="list-style-type: none"> Labour and salaries of workers: 	Skilled labour is required for such a development as proposed and unskilled labour will be sourced from the local communities and not the farming communities.
		<ul style="list-style-type: none"> Floods: 	Mr Meyer explained that he will highlight this issue with the developer as this was not an issue before.

9 Plan of study (PoS) for EIA

9.1 Description of the tasks that will be undertaken as part of the EIA process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken

9.1.1 Specialist studies

Specialist studies will be undertaken (as indicated in *section 9.1.1*) between September and November 2014. Inputs from new and existing specialist studies will be used to assess potential environmental impacts.

The following specialist studies will be undertaken:

- Ecological specialist study (Fauna & Flora).
- Phase 1 archaeological specialist study;
- Paleontological Impact assessment;
- Visual impact assessment;
- Hydrological specialist study; and
- Agricultural specialist study.

9.1.2 EIA Report & EMP

Once the Scoping Report has been accepted, the Environmental Impact Report (EIR) and the Environmental Management Programme (EMP) will be compiled. The method for assessing impacts is outlined in *Section 9.3* of this document.

The draft EIR & EMP, as well as specialist reports will be made available for review and comment by I&APs (30-day commenting period). All comments by I&APs and competent authorities and associated responses will be recorded in the I&AP Issue and response register and dealt with accordingly.

The draft EIR and EMP will be reviewed and revised where required, before submission to the Department of Environmental Affairs for consideration.

9.2 Stages at which the competent authority will be consulted

- Submission of draft Scoping Report and Environmental Impact Report with EMP to the Department of Environmental Affairs, for notification purposes during the public review periods;
- Submission of final Scoping Report and Environmental Impact Report with EMP to the Department of Environmental Affairs for comment and consideration.

9.3 Description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity

The first step in the assessment is to describe the nature of the impact, i.e. a description of what is being affected and how. This is an appraisal of the type of effect the activity would have on the affected environment. The second step is to determine the significance of the described impact.

GN R. 543 defines "significant impact" as an impact that by its magnitude, duration, intensity or probability of occurrence may have a notable effect on one or more aspects of the environment.

The environmental significance will be determined through a synthesis of the following assessment criteria:

- **Extent (spatial scale)**

This will be rated as:

- local - where the impact would extend only as far as the activity;
- immediate - where the impact would be limited to the site and its immediate surroundings;
- regional - where the impact would extend to the region (municipal boundaries); or
- national - where the impact would have an impact on a national scale.

- **Duration**

This will be rated to indicate whether the lifetime of the impact would be:

- short term - where the impact would exist for 0-5 years;
- medium term - where the impact would exist for 5-15 years;
- long term - where the impact will cease after the operational life of the activity either because of natural process or by human intervention; or
- permanent - where mitigation either by natural process or by human intervention will not occur in such a way or in such a time span that the impact can be considered transient.

- **Status and intensity of the impact (severity)**

Here it will be established whether the impact would be destructive or benign and rated as:

- low - where the impact affects the environment in such a way that natural, social and cultural functions and processes are not affected;
- moderate - where the affected environment is altered, but natural, social and cultural functions and processes continue albeit in a modified way; or
- high - where natural, social and cultural functions or processes are altered to the extent that it will temporarily or permanently cease.

The ratings will be based on a number of considerations, i.e. the degree to which:

- the activity, product or service violates the spirit or letter of any law, statute, regulation or authorisation;
- the activity, product or service affects public health and safety (level of toxicity etc.);
- the activity, product or service affects the availability or functioning of life support systems or other environmental goods, services and conditions which are considered to be of special or unique character, of limited supply or essentially irreplaceable;
- the activity, product or service is related to other impacts which individually are insignificant, but could cumulatively result in significant impacts;
- an activity, product or service may establish a precedent for future actions with significant environmental impacts or represents a decision in principle about an issue with significant implications;
- the potential impacts of the activity, product or service is highly uncertain or involves unique or unknown risks; and
- the degree of irreversibility.

- **Probability**

The likelihood of the impact actually occurring will be rated as:

- improbable - where the possibility of the impact to materialise is very low, either because of design or historic experience;
- probable - where there is a distinct possibility that the impact will occur;
- highly probable - where it is most likely that the impact will occur; or
- definitely - where the impact will occur regardless of any prevention measures.

- **Impact significance**

The significance of impacts will be determined through a synthesis of the aspects produced, in terms of their nature, duration, intensity, extent and probability and described as:

- low - where it will not have an influence on the decision;
- medium - where it should have an influence on the decision unless it is mitigated; or
- high - where it would influence the decision regardless of any possible mitigation.

9.4 Particulars of the public participation process that will be conducted during the EIA process

- The EIR and EMP, as well as specialist reports will be made available for comment by I&APs (30-day commenting period) at the Greater Taung Local Municipality and Reivilo Farmers Union. Electronic versions of these documents will also be made available upon

request. At the end of the commenting period, the EIR and EMP will be reviewed and revised, and submitted to the relevant CAs for consideration.

- All comments by I&APs and CAs and associated responses will be recorded in the I&AP Issue and response register and dealt with accordingly.

Appendices

Appendix 1: Proof of pre-authorisation consultation with the competent authority (e-mail sent on 2014-08-05)

Good day

The Centre for Environmental Management, North-West University, Potchefstroom Campus facilitated the EIA process for a PV Solar Plant near Middelburg in the Eastern Cape (NEAS REFERENCE: DEA/EIA/000/1343/2012, DEA REFERENCE: 14/12/16/3/3/2/385), which resulted in the issuing of an Environmental Authorisation on 2 July 2013 for the following listed activities:

- * The construction of facilities or infrastructure for the generation of electricity, where the electricity output is 20 MW or more (Activity 1 in listing notice 2, GN R. 545);
- * Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha or more (Activity 15 in listing notice 2, GN R. 545);
- * The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV (Activity 10 in listing notice 1, GN R. 544)

In a due diligence process, lawyers have enquired as to why the applicant did not also apply for authorisation for the following activity:

- * Activity 14 - The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation (Listing notice 3).

As EAP I responded that in my mind authorisation was granted for physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha or more in fairly pristine karoo veld, as described in the EIA report and specialist vegetation report. I am of the opinion that the authorisation granted allows for the physical alteration of the land for the proposed PV power plant construction, which includes impacts caused by the clearance of the site. Additional authorisation for the clearance of vegetation is therefore not required.

Your feedback and clarification on this response will be appreciated?

I further responded that should it be deemed necessary to also apply for authorisation for the clearance of vegetation (Activity 14), the Environmental Authorisation will have to be amended to include the additional activity. In my mind this should only be an administrative amendment, as the potential impacts on surface water had already been identified, assessed and reported on in the original EIA and management arrangements to address these had been included in the approved EMP.

Again, your feedback and clarification on this response will be appreciated? It will be appreciated if you could suggest a way forward to address the above matter. Could you also please provide an indication of time frames and requirements for such amendment of authorisations?

Your response will be appreciated.

Theunis Meyer

Vrywaringsklousule / Disclaimer: <http://www.nwu.ac.za/it/gov-man/disclaimer.html>

Response received on 2014-08-05

Dear Theunis.

Please see my comments below in Blue:

Muhammad Essop

Assistant Director - Strategic Infrastructure Developments


Integrated Environmental Authorisations


Department of Environmental Affairs

Private Bag X447

Pretoria

0001

 [\(012\) 399 9406](tel:(012)3999406)

 [\(012\) 320 7539](tel:(012)3207539)

 MEssop@environment.gov.za



>>> "Theunis Meyer" <Theunis.Meyer@nwu.ac.za> 04/08/2014 14:59 >>>

Good day

The Centre for Environmental Management, North-West University, Potchefstroom Campus facilitated the EIA process for a PV Solar Plant near Middelburg in the Eastern Cape (NEAS REFERENCE: DEA/EIA/000/1343/2012, DEA REFERENCE: 14/12/16/3/3/2/385), which resulted in the issuing of an Environmental Authorisation on 2 July 2013 for the following listed activities:

- * The construction of facilities or infrastructure for the generation of electricity, where the electricity output is 20 MW or more (Activity 1 in listing notice 2, GN R. 545);
- * Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha or more (Activity 15 in listing notice 2, GN R. 545);
- * The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV (Activity 10 in listing notice 1, GN R. 544)

In a due diligence process, lawyers have enquired as to why the applicant did not also apply for authorisation for the following activity:

- * Activity 14 - The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation (Listing notice 3). [The Authorisation included the abovementioned activities, including activity 14 of GNR 546?](#)

As EAP I responded that in my mind authorisation was granted for physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area

to be transformed is 20 ha or more in fairly pristine karoo veld, as described in the EIA report and specialist vegetation report. I am of the opinion that the authorisation granted allows for the physical alteration of the land for the proposed PV power plant construction, which includes impacts caused by the clearance of the site. Additional authorisation for the clearance of vegetation is therefore not required.

Your feedback and clarification on this response will be appreciated?

Yes. The activity of the transformation of land also includes the clearance of vegetation. It must be noted that activity 14 of GNR 546 would also need to be authorised if the vegetation to be cleared is classified as indigenous. Hence, if the vegetation is **fairly pristine karoo veld** as described in the report is indigenous, Activity 14 needs to be authorised.

I further responded that should it be deemed necessary to also apply for authorisation for the clearance of vegetation (Activity 14), the Environmental Authorisation will have to be amended to include the additional activity. In my mind this should only be an administrative amendment, as the potential impacts on surface water had already been identified, assessed and reported on in the original EIA and management arrangements to address these had been included in the approved EMP.

Again, your feedback and clarification on this response will be appreciated? It will be appreciated if you could suggest a way forward to address the above matter.

We need to confirm this in the amendment process. It must be noted that an application for amendment needs to be applied for, whereby this Department will review the application and provide a decision according to the Regulations. We at this stage cannot confirm or deny whether the amendment will be an administrative error. In addition, was Activity 14 of GNR 546 in the application form or in the EIAR?. In addition, is this the only activity you wish to add into the EA?

Could you also please provide an indication of time frames and requirements for such amendment of authorisations?

The amendment process, as stipulated in the Regulations includes, 14 days to acknowledge receipt of the application, and then 30 days thereafter to either issue a decision if non substantive amendment or to write back to the EAP indicating the information required to make a decision. You need to download the latest version of the application form from the DEA website, pay the prescribed administrative fee and provide the information to be amended and the motivation for such amendments.

Hope this helps Please feel free to contact me should you require any further information.

Your response will be appreciated.

Theunis Meyer

Vrywaringsklousule / Disclaimer: <http://www.nwu.ac.za/it/gov-man/disclaimer.html>

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Appendix 2: Proof of communication with the competent authority regarding the EIA application

Dear Jurie.

Thank you for this. Please note that we will not be attending the meeting. We will attend a site visit in due course during the course of the project.

Regards

Muhammad Essop

Assistant Director - Strategic Infrastructure Developments


Integrated Environmental Authorisations


Department of Environmental Affairs

Private Bag X447

Pretoria

0001

 [\(012\) 399 9406](tel:(012)3999406)

 [\(012\) 320 7539](tel:(012)3207539)

 MEssop@environment.gov.za



>>> "Jurie Moolman" <20035551@nwu.ac.za> 31/07/2014 10:42 >>>

Good day.

Please find attached a Background Information Document as well as an Invitational Letter for the proposed Brakfontein Solar PV plant. For any enquiries regarding the above mentioned please do not hesitate to contact me.

Regards.

Jurie Moolman *M.Sc (Cand. Nat. Sci. 100208/13)*

Assistant Specialist: Environmental Management

Centre for Environmental Management, Potchefstroom Campus, NWU

Tel: [\(018\) 299 1588](tel:(018)2991588)

Fax: [\(018\) 299 4266](tel:(018)2994266)

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Appendix 3: Proof of communication with the Department of Water Affairs regarding the proposed development





Level D, The Adderley
25 Adderley Street

P.O. Box 2681
Cape Town, 8000
tel 021-461 3382 • fax 086 568 2737
www.ae-amd.co.za

We request that such a written confirmation be in the name of
Brakfontein Solar Power Plant (Pty) Ltd
PO Box 2681
Cape Town,
8000

Should you have any queries please contact me.

Kind regards

A handwritten signature in black ink, appearing to read 'Charlie Berrington', is written over a faint, curved line.

Charlie Berrington
Site Development Manager
082 440 4057
charlie@ae-amd.co.za

AE-AMD Renewable Energy (Pty) Ltd
Renewable Energy Solutions

Directors Francois du Plessis • Jorge Gutierrez (Spain) • Tamuka Kaseke • Juan Carlos Ruiz (Spain) •
Anthony Hewat • Marc Immerman
Reg No: 2010/004670/07

Appendix 4: Proof of per-application communication with SKA South Africa



17 Baker Street
Rosebank
Johannesburg
South Africa
2196

Tel: +27 (0) 11 442 2434
Fax: +27 (0) 11 442 2454
Email: atplady@ska.ac.za

Charles Berrington
Site Development Manager
Brakontein Solar Power Plant (Pty) Ltd
P.O. Box 2681
Cape Town
8000

Fax 086 568 2737

E-mail: charlie@ae-amd.co.za

Date: 23 June 2014

Dear Mr Berrington,

Re: Development of Brankfontein Solar Power Plant on the farm Brakfontein No 897 in the North West Province

This letter is in response to your email request to provide an assessment on the potential development of a photo-voltaic electricity generation facility on the farm Brakfontein No 897 in the North West Province and the risk it may pose on the Square Kilometre Array Project.

A high level risk assessment has been conducted at the South African SKA Project Office to determine the potential impact of such facilities on the Square Kilometre Array. This letter serves to confirm the outcomes of the risk assessment, and proposals for any future investigations associated with this facility.

- I. The location of the proposed facility has been provided in form of a Google Earth KML file by Brakontein Solar Power Plant (Pty) Ltd.
- II. The nearest SKA station has been identified as Rem_Opt-8, at approximately 203 km from the proposed installation;
- III. Based on distance to the nearest SKA station, and the information currently available on the detailed design of the PV installation, this facility poses a very low risk of detrimental impact on the SKA;
- IV. As a result of the very low risk associated with the PV facility, no mitigation measures would be required at this stage. However, the South African SKA Project Office would like to be kept informed of progress with this project, and reserves the right to further risk assessments at a later stage.

This technical advice is provided by the South African SKA Project Office on the basis of the protection requirements of the SKA in South Africa, and does not constitute legal approval of the renewable energy projects in terms of the Astronomy Geographic Advantage Act, the Management Authority, and its regulations or declarations.



S O U T H A F R I C A S Q U A R E K I L O M E T R E A R R A Y
SKA South Africa Project Office





Regards,

A handwritten signature in black ink, appearing to be 'Adrian Tiplady'.

Dr. Adrian Tiplady
South African SKA Site Bid Manager
SKA South Africa
Tel: 011 442 2434
Fax: 011 442 2454
atiplady@ska.ac.za



S O U T H A F R I C A S Q U A R E K I L O M E T R E A R R A Y
SKA South Africa Project Office



Appendix 5: Acknowledgement letter from the Department of Environmental Affairs (11th of August 2014)



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Fedsure Building · 315 Pretorius Street · PRETORIA
Tel (+ 27 12) 310 3911 · Fax (+ 2712) 322 2682

DEA Reference: 14/12/16/3/3/2/731

Enquiries: Ms Mmatlala Rabothata

Tel: 012 395 1768 Fax: 012 320 7539 E-mail: mrabothata@environment.gov.za

Mr Theunis Meyer
Centre for Environmental Management
Private Bag X60001
POTCHEFSTROOM
2520

Fax: 086 513 7996

Tel: 018 299 1467

PER FACSIMILE / MAIL

Dear Mr Meyer

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF A NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING/EIA PROCESS) FOR THE PROPOSED CONSTRUCTION OF A PHOTOVOLTAIC SOLAR POWER STATION WITH ASSOCIATED INFRASTRUCTURE ON THE FARM BRAKFRONTEIN 897 HN NEAR THE TOWN TAUNG WITHIN GREATER TAUNG LOCAL MUNICIPALITY IN NORTH WEST PROVINCE

The Department confirms having received the application form with proof of payment, proof of notification of land owners, project map, project schedule, Declaration of applicant and Declaration of EAP for environmental authorisation for the abovementioned project submitted by you on 27 June 2014. You have submitted these documents to comply with the Environmental Impact Assessment Regulations, 2010. The application is accepted.

Please note that should you have any administrative related queries, do not hesitate to contact the writer. Should you have any project specific queries on the abovementioned application, you are advised to contact: Mr Muhammad Essop; Telephone Number: (012) 395 1734; Email Address: MEssop@environment.gov.za.

In addition, please consider the following during compilation of reports for this application for environmental authorisation:

- Please be advised that in terms of the EIA Regulations and NEMA the investigation of alternatives is mandatory. Alternatives must therefore be identified, investigated to determine if they are feasible and reasonable. It is also mandatory to investigate and assess the option of not proceeding with the proposed activity (the "no-go" option).
- Should water, solid waste removal, effluent discharge, stormwater management and electricity services be provided by the municipality, you are requested to provide this office with written proof that the municipality has sufficient capacity to provide the necessary services to the proposed development. Confirmation of the availability of services from the service providers must be provided together with the reports to be submitted.

- In the reports to be submitted it must clearly be demonstrated in which way the proposed development will meet the requirements of sustainable development. You must also consider energy efficient technologies and water saving devices and technologies for the proposed development. This could include measures such as the recycling of waste, the use of low voltage or compact fluorescent lights instead of incandescent globes, maximising the use of solar heating, the use of dual flush toilets and low-flow shower heads and taps, the management of storm water, the capture and use of rainwater from gutters and roofs, the use of locally indigenous vegetation during landscaping and the training of staff to implement good housekeeping techniques.
- A detailed and complete EMPr must be submitted with the EIR. This EMPr must not provide recommendations but must indicate actual remediation activities which will be binding on the applicant. Without this EMPr the documents will be regarded as not meeting the requirements and will be returned to the applicant for correction.
- The applicant/EAP is required to inform this Department in writing upon submission of any draft report, of the contact details of the relevant State Departments (that administer laws relating to a matter affecting the environment) to whom copies of the draft report were submitted for comment. Upon receipt of this confirmation, this Department will in accordance with Section 24O(2) & (3) of the National Environmental Management Act, 1998 (Act 107 of 1998) inform the relevant State Departments of the commencement date of the 40 day commenting period, or 60 days in the case of the Department of Water Affairs for waste management activities which also require a licence in terms of the National Water Act, 1998 (Act 36 of 1998).
- Should it be necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999), please submit the necessary application to SAHRA or the relevant provincial heritage agency and submit proof thereof with the Environmental Impact Assessment Report. The relevant heritage agency should also be involved during the public participation process and have the opportunity to comment on all the reports to be submitted to this Department.

You are required to submit the final site layout plan together with the Final EIR to the Department. All available biodiversity information must be used in the finalisation of the layout plan.

The Environmental Management Programme (EMPr) submitted as part of the application for environmental authorisation must include the following:

- All recommendations and mitigation measures to be recorded in the Final EIR.
- A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
- An open space management plan to be implemented during the construction and operation of the facility.
- A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility including timeframes for restoration which must indicate rehabilitation within the shortest possible time after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien

species and ensure that the continuous monitoring and removal of alien species is undertaken.

- A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

You are requested to submit two (2) electronic copies (the main report must be separated from the Appendices (each appendix saved separately) (CD/DVD) and two (2) hard copies of both the Draft and Final Report to the Department. The hard copies must be double-sided printed; and must be ring binded.

The EAP must, in order to give effect to regulation 56 (2), before submitting the Environmental Impact Assessment Report to the Department give registered interested and affected parties access to, and an opportunity to comment on the report in writing.

In terms of regulation 67 of the EIA Regulations, 2010 this application will lapse if the applicant (or the EAP on behalf of the applicant) fails to comply with a requirement in terms of the Regulations for a period of six months after having submitted the application, unless the reasons for failure have been communicated to and accepted by this Department.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours sincerely


Mr Ishaam Abader

Deputy Director-General: Legal, Authorisations, Compliance and Enforcement

Department of Environmental Affairs:

Letter signed by: Ms Mmatlala Rabothata

Designation: Environmental Officer: Integrated Environmental Authorisations

Date: 11/07/14

CC:	Mr Charlie Berrington	Brakfontein Solar Power Plant (Pty) Ltd	Fax: 086 568 2737
		NW Department of Economic Development, Environment, Conservation and Tourism	Fax: N/A
	Mr Mpho Mofokeng	Greater Taung Local Municipality	Fax: N/A

A. EIA INFORMATION REQUIRED FOR SOLAR ENERGY FACILITIES

1. General site information

The following general site information is required:

- Descriptions of all affected farm portions
- 21 digit Surveyor General codes of all affected farm portions
- Copies of deeds of all affected farm portions
- Photos of areas that give a visual perspective of all parts of the site
- Photographs from sensitive visual receptors (tourism routes, tourism facilities, etc.)
- Solar plant design specifications including:
 - Type of technology
 - Structure height
 - Surface area to be covered (including associated infrastructure such as roads)
 - Structure orientation
 - Laydown area dimensions (construction period and thereafter)
 - Generation capacity
- Generation capacity of the facility as a whole at delivery points

This information must be indicated on the first page of any Scoping or EIA document. It is also advised that it be double checked as there are too many mistakes in the applications that have been received that take too much time from authorities to correct.

2. Site maps and GIS information

Site maps and GIS information should include at least the following:

- All maps/information layers must also be provided in ESRI Shapefile format
- All affected farm portions must be indicated
- The exact site of the application must be indicated (the areas that will be occupied by the application)
- A status quo map/layer must be provided that includes the following:

- Current use of land on the site including:
 - Buildings and other structures
 - Agricultural fields
 - Grazing areas
 - Natural vegetation areas (natural veld not cultivated for the preceding 10 years) with an indication of the vegetation quality as well as fine scale mapping in respect of Critical Biodiversity Areas and Ecological Support Areas
 - Critically endangered and endangered vegetation areas that occur on the site
 - Bare areas which may be susceptible to soil erosion
 - Cultural historical sites and elements
- Rivers, streams and water courses
- Ridgelines and 20m continuous contours with height references in the GIS database
- Fountains, boreholes, dams (in-stream as well as off-stream) and reservoirs
- High potential agricultural areas as defined by the Department of Agriculture, Forestry and Fisheries
- Buffer zones (also where it is dictated by elements outside the site):
 - 500m from any irrigated agricultural land
 - 1km from residential areas
- Indicate isolated residential, tourism facilities on or within 1km of the site
- A slope analysis map/layer that include the following slope ranges:
 - Less than 8% slope
 - between 8% and 12% slope
 - between 12% and 14% slope
 - steeper than 18 % slope
- A map/layer that indicate locations of birds and bats including roosting and foraging areas (specialist input required)
- A site development proposal map(s)/layer(s) that indicate:
 - Positions of solar facilities
 - Foundation footprint

- Permanent laydown area footprint
- Construction period laydown footprint
- Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible)
- River, stream and water crossing of roads and cables indicating the type of bridging structures that will be used
- Substation(s) and/or transformer(s) sites including their entire footprint.
- Cable routes and trench dimensions (where they are not along internal roads)
- Connection routes to the distribution/transmission network (the connection must form part of the EIA even if the construction and maintenance thereof will be done by another entity such as ESKOM)
- Cut and fill areas along roads and at substation/transformer sites indicating the expected volume of each cut and fill
- Borrow pits
- Spoil heaps (temporary for topsoil and subsoil and permanently for excess material)
- Buildings including accommodation

With the above information authorities will be able to assess the strategic and site impacts of applications.

3. Regional map and GIS information

The regional map and GIS information should include at least the following:

- All maps/information layers must also be provided in ESRI Shapefile format
- The map/layer must cover an area of 20km around the site
- Indicate the following:
 - roads including their types (tarred or gravel) and category (national, provincial, local or private)
 - Railway lines and stations
 - Industrial areas
 - Harbours and airports

- Electricity transmission and distribution lines and substations
- Pipelines
- Waters sources to be utilised during the construction and operational phases
- A visibility assessment of the areas from where the facility will be visible
- Critical Biodiversity Areas and Ecological Support Areas
- Critically Endangered and Endangered vegetation areas
- Agricultural fields
- Irrigated areas
- An indication of new road or changes and upgrades that must be done to existing roads in order to get equipment onto the site including cut and fill areas and crossings of rivers and streams

4. Important stakeholders

Amongst other important stakeholders, comments from the National Department of Agriculture, Forestry and Fisheries must be obtained and submitted to the Department. Request for comment must be submitted to:

Mrs. Anneliza Collett
Directorate: Land Use & Soil Management
Department of Agriculture, Forestry & Fisheries
Tel: 012 - 319 7508
Fax: 012 - 329 5938
e-mail: AnnelizaC@nda.agric.za
www.agis.agric.za

In addition, comments must be requested from Eskom (Mr Kevin Leask or Mr Ronald Marais (011) 8008111) regarding grid connectivity and capacity.

B. AGRICULTURE STUDY REQUIREMENTS

- Detailed soil assessment of the site in question, incorporating a radius of 50 m surrounding the site, on a scale of 1:10 000 or finer. The soil assessment should include the following:
 - Identification of the soil forms present on site
 - The size of the area where a particular soil form is found
 - GPS readings of soil survey points

- The depth of the soil at each survey point
 - Soil colour
 - Limiting factors
 - Clay content
 - Slope of the site
 - A detailed map indicating the locality of the soil forms within the specified area,
 - Size of the site
- Exact locality of the site
- Current activities on the site, developments, buildings
- Surrounding developments / land uses and activities in a radius of 500 m of the site
- Access routes and the condition thereof
- Current status of the land (including erosion, vegetation and a degradation assessment)
- Possible land use options for the site
- Water availability, source and quality (if available)
- Detailed descriptions of why agriculture should or should not be the land use of choice
- Impact of the change of land use on the surrounding area
- A shape file containing the soil forms and relevant attribute data as depicted on the map

Appendix 6: Proof of North-West Department of Rural, Environmental and Agricultural Development acknowledgement of EIA application

08/10/2014 15:05 FAX 0183895640

001/002



read

Department:
**Rural, Environment and Agricultural
Development**
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

AgriCentre Building
Chr. Dr. James Moroka
and Stadium Rd
Private Bag X2039,
Mmabatho 2735

CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES
DIRECTORATE: ENVIRONMENTAL QUALITY



Tel: +27 (18) 389 5156
Fax: +27 (18) 389 5006
E-mail: oskosana@nwag.gov.za
Eng: Ouma Skosana

Reference: NWP/DEA/10/2014
DEA Ref : 14/12/16/3/3/2/731

Attention: Ms. Mmatlala Rabothata
Department of Environmental Affairs
Private Bag X 447
PRETORIA
0001

Tel No.: (012) 395 1768
Fax No.: (012) 320 7539

Dear Sir/Madam

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING/EIA PROCESS) FOR THE PROPOSED CONSTRUCTION OF A PHOTOVOLTAIC SOLAR POWER STATION WITH ASSOCIATED INFRASTRUCTURE ON THE FARM BRAKFORTEIN 897 HN NEAR THE TOWN TAUNG, GREATER TAUNG LOCAL MUNICIPALITY, NORTH WEST PROVINCE

We confirm having received the above mentioned Application Form for Environmental Authorisation accepted by National Department of Environmental Affairs on 29 August 2014.

This Department requested a hard copy report after the report have been completed.

Please note that the application has been assigned to Mrs. Thembekile Makuwa, Potchefstroom Office, reachable at (018) 299 6583. This file reference number is NWP/DEA/10/2014. Kindly quote this reference number and the name of the officer it has been assigned to in any future correspondence in respect of the application including notification to be used for public participation.

You are requested to submit future correspondences pertaining to this application to the relevant officer or office where she is based to this address:



NW DREAD

WE BELONG WE CARE WE SERVE

NWP/DEA/10/2014

Page 1

08/10 2014 15:06 FAX 0183895840

002/002

**114 Chris Hani Street
Potchefstroom
2520
Office Number 79 & 81**

If you need any clarification about this acknowledgement letter please contact **Mr Steven Mukhola** at (018) 389 5959.

Yours Faithfully



Mr Steven Mukhola
Control Environmental Officer Grade B: Development Impact Management
Department of Rural, Environment and Agricultural Development

Date: 11/09/2014

cc: Mr. Theunis

Meyer Fax No: (018) 299 1467

WE BELONG WE CARE WE SERVE

Appendix 7: Proof of Department of Agriculture, Forestry and Fisheries acknowledgement of EIA application



agriculture, forestry & fisheries

Department:
Agriculture, forestry & fisheries
REPUBLIC OF SOUTH AFRICA

Directorate Land Use and Soil Management, Private Bag x120, Gezina Pretoria, 0031
Delpen Building, c/o Annie Botha & Union Streets, Riviera

From: Director: Land Use and Soil Management
Tel: (012) 319 7634 **Fax:** (012) 329 5938 **e-mail:** nhlakad@daff.gov.za

CEM
P Bag x 6001
Potchefstroom
2520

23 September 2014

Dear Sir/Madam

This serves as a notice of receipt and confirms that your application has been captured in our electronic AgriLand tracking and management system. It is strongly recommended that you use the on-line AgriLand application facility in future.

Detail of your application as captured:

Type: **Solar PV plant**
Your reference number:
Property Description: **Brakfontein 897-HN**
Dated: **23 September 2014**

Please use the following reference number in all enquiries:

AgriLand reference number: 2014_09_0120

Enquiries can be made to the above postal, fax or e-mail address.

Yours sincerely,

HJ Buys
pp DIRECTOR: LAND USE AND SOIL MANAGEMENT

<http://www.agis.agric.za/agriland>

Appendix 8: Proof of South African Heritage Resources Agency acknowledgement of EIA application

Brakfontein PV solar plant

Our Ref: 6004

Enquiries: Nokukhanya Khumalo
Tel: 021 462 4502
Email: nkhumalo@sahra.org.za
CaseID: 6004

Date: Thursday September 18, 2014

Page No: 1



Letter

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Mr Charles Berrington

Background Information Document for the proposed development of a Photovoltaic Power Plant on the Farm Brakfontein 897-HN, Taung by Brakfontein Solar Power Plant (Pty) Ltd in the North West Province

Thank you for notifying SAHRA of the intention to develop a PV Solar Plant on the farm Brakfontein 887 HN, which is 35km from the town of Taung. The development footprint is proposed to be 225 hectares on undeveloped land.

Under sections 34, 35 and 36 of the National Heritage Resources Act (25 of 1999) heritage resources are protected from damage from mining and development activities. Resources like palaeontology (fossils of plant and animal material), burial grounds, unmarked and marked graves that are older than 60 years. Built structures that are older than 60 years old, archaeology which includes: stone tools, stone walled sites, prehistoric and historic pottery sherds, ash grounds etc.

The proposed Solar facility is situated to the west of, and in close proximity to Taung National and World Heritage Site. This area is considered to have high archaeological and palaeontological sensitivity (<http://www.sahra.org.za/map/palaeo>), due to the high likelihood of the presence of significant fossil and archaeological material. A field based palaeontological assessment and an archaeological assessment will have to be undertaken for this project.

In addition, the impact of the proposed solar facility as well as the additional infrastructure such as roads, substation and power line corridors will have to be assessed. The impact of the proposed development on the character of the site must also be assessed

Decision:

A comprehensive Heritage Impact Assessment must be undertaken, inclusive of:

- A Phase 1 Archaeological Impact Assessment by a professional archaeologist, preferably by an archaeologist with experience of stone age archaeology of the area (<http://asapa.org.za/images/uploads/crm-list-october.pdf>).
- A Palaeontological Impact Assessment by a professional palaeontologist (<http://www.palaeontologicalsociety.co.za/palaeontological-impact-assessments.html>).
- In addition, the impacts of increased traffic, including a human and vehicle must be assessed.



The South African Heritage Resources Agency

Street Address: 111 Harrington Street, Cape Town 8000 * Postal Address: PO Box 4637, Cape Town 8000
* Tel: +27 21 462 4502 * Fax: +27 21 462 4509 * Web: <http://www.sahra.org.za>

Brakfontein PV solar plant

Our Ref: 6004

Enquiries: Nokukhanya Khumalo
Tel: 021 462 4502
Email: nkhumalo@sahra.org.za
CaseID: 6004

Date: Thursday September 18, 2014

Page No: 2



an agency of the
Department of Arts and Culture

Once SAHRA receives these studies further comments will be made about the proposed development.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Nokukhanya Khumalo
Heritage Officer
South African Heritage Resources Agency

Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/169672>



The South African Heritage Resources Agency

Street Address: 111 Harrington Street, Cape Town 8000 * Postal Address: PO Box 4637, Cape Town 8000
* Tel: +27 21 462 4502 * Fax: +27 21 462 4509 * Web: <http://www.sahra.org.za>

Appendix 9: Proof of invitations to register as Interested and Affected Parties (I&APs) that were mailed to pre-identified I&APs, including neighbours, community based organisations and other government authorities



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Internal Box 150, Private Bag X6001, Potchefstroom,
South Africa 2520

Centre for Environmental Management

Tel: +27 (0) 18 299-1588

Fax: + 27 (0) 18 299-4266

Email: 20801114@nwu.ac.za

Web: www.nwu.ac.za/cem

12 August 2014

Mr. Kagiso Botha
P.O. Box 56
Reivilo
8595

Tel: 084 689 3236

Fax: 086 595 4609

E-mail: kagisobotha94@gmail.com

Dear sir,

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS: INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY – ESTABLISHMENT OF A PHOTOVOLTAIC SOLAR POWER PLANT WITH ASSOCIATED INFRASTRUCTURE ON THE FARM BRAKFORTEIN 897 HN, NEAR THE TOWN TAUNG IN THE NORTH WEST PROVINCE BY BRAKFORTEIN SOLAR POWER PLANT (PTY) LTD.:

DEA Reference Number: 14/12/16/3/3/2/731

The Centre for Environmental Management (CEM) has been appointed to act as the independent Environmental Assessment Practitioner (EAP) to conduct an Environmental Impact Assessment (EIA) and related processes and specialist studies for the purpose of obtaining the required authorisation for the project.

Notice is hereby given of a joint public participation process in terms of Regulation 54(3) of the EIA Regulations, published in Government Gazette No. 543 under Section 24(5) of the National Environmental Management Act (No. 107 of 1998) (NEMA) and the National Water Act, 1998 (Act No. 36 of 1998) (NWA) to undertake an Environmental Impact Assessment for the proposed establishment of a photovoltaic solar power plant.

Proposed Project: Construction of a photovoltaic solar power plant with associated infrastructure.

Location: It is proposed that the power plant is established on the farm Brakfontein 897 HN, located 35 km west of the town Taung and 27 km east of the town Reivilo in the North West Province (S27.584966°, E024.417409°).

An application for environmental authorisation to undertake the following activities in terms of the National Environmental Management Act (107 of 1998) has been submitted to the Department of Environmental Affairs (DEA):

Activity 1 (GN R. 545 of 2010): *The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 MW or more.*

Activity 15 (GN R. 545 of 2010): *Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha more.*

Activity 11 (GN R. 545 of 2010): *The construction of canals, channels, bridges, ... buildings exceeding 50 m² in size; or infrastructure or structures covering 50 m² or more, where such construction occurs within a watercourse or within 32 m of a watercourse, measured from the edge of a water course.*

Activity 18 (GN R. 545 of 2010): *The infilling or depositing of any material of more than 5 m³ into, or the dredging, excavation, removal or moving of soil, sand, ... pebbles or rock of more than 5 m³ from a watercourse, ... but excluding where such infilling, depositing, dredging, excavation, removal or moving is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority.*

Activity 10 (GN R. 544 of 2010): *The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV.*

Activity 22 (GN R. 544 of 2010): *The construction of a road, outside urban areas, (i) with a reserve wider than 13,5 meters or, (ii) where no reserve exists where the road is wider than 8 meters.*

Activity 14 (GN R546 of 2010): *The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.*

Application for a water use license to undertake the following activities in terms of the NWA, 1998:

Section 21(c): *Impeding or diverting the flow of water in a watercourse;*

Section 21 (i): *Altering the bed, banks, course or characteristics of a watercourse*

Opportunity to register as an Interested and Affected Party: In order to register as an interested and/or affected party, please complete the attached registration form and fax or e-mail it to the contact persons given below within **30 days** from the date of this notice.

Date of Public Participation meeting: Monday, 25 August 2014

Venue for Public Participation meeting: To be confirmed

For more information contact: Mr. Jurie Moolman, Centre for Environmental Management, Internal box 150, Private bag X6001, Potchefstroom, 2520, Tel: (018) 299-1588, Fax: (018) 299-1588, E-mail: 20035551@nwu.ac.za

Yours sincerely

Mr. Theunis Meyer

Environmental Assessment Practitioner

CENTRE FOR ENVIRONMENTAL MANAGEMENT

**BRAKFONTEIN SOLAR POWER PLANT (PTY) LTD.: PHOTOVOLTAIC SOLAR POWER
STATION WITH ASSOCIATED INFRASTRUCTURE**

NAME AND SURNAME:

BUSINESS ADDRESS:

.....

POSTAL ADDRESS:

.....

TEL:

CELL:

FAX:

E-MAIL:

INTEREST IN THE MATTER:

.....

.....

.....

.....

.....

.....

.....

Mr. Ben-Karel van Aswegen
Posbus 101008
Moreleta Park/Plaza
0167



RD 965 500 994 ZA
RECIPIENT NAME (please print clearly)

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A BOOK COPY	CUSTOMER COPY 301028R

Mr. Charl Wolhuter
Posbus 307
Magogong
8575
E-mail: cwol@lantic.net



RD 965 500 977 ZA
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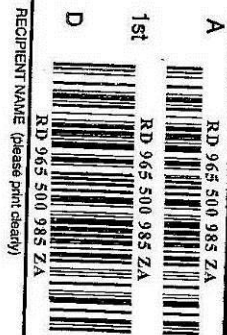
Mr. Chris Lombaard
Posbus 6582
Flamwood
2572



RD 965 500 950 ZA
RECIPIENT NAME (please print clearly)

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Mr. Sarel du Plessis
Posbus 63
Reivilo
8595



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(with a domestic insurance option)
RD 965 500 985 ZA
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Mr. Louis Spruyt
Persoonlik afgelewer



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Mr. Zevo Lesego
P.O. Box 21
Vryburg
8600

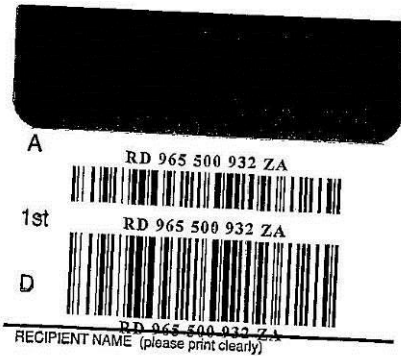


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Mr. Kgosi le Lekgotla
Private Bag X534
Taung
8584



RECIPIENT NAME (please print clearly)

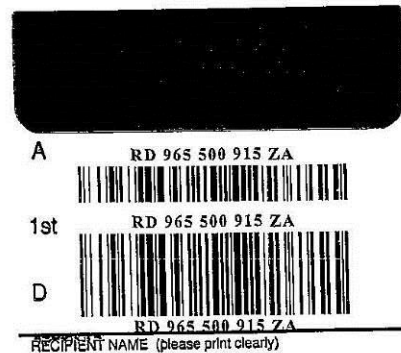
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Mathibane go go Bophuthuthuwana Traditional

Mr. Godfrey Huma
Private Bag X1048

Taung
85800



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RD 965 500 915 ZA
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Ms Mashudu Marubini
E-mail: MashuduMa@daff.gov.za
Private Bag X120
Pretoria
0001
DAFF Delegate of the Minister



RECIPIENT NAME (please print clearly)

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(with a domestic insurance option)
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REGISTERED LETTER
(with a domestic insurance option)
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CUSTOMER COPY 301028R

Ms Thoko Buthelezi
E-mail: ThokoB@daff.gov.za
Private Bag X120
Pretoria
0001
DAFF Agriland Liaison



RECIPIENT NAME (please print clearly)

REGISTERED LETTER
(with a domestic insurance option)
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REGISTERED LETTER
(with a domestic insurance option)
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CUSTOMER COPY 301028R

Mr. Fanie Smit
Reivilo Boere-Unie
Posbus 319
Vryburg
8600



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(with a domestic insurance option)
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A BOOK COPY

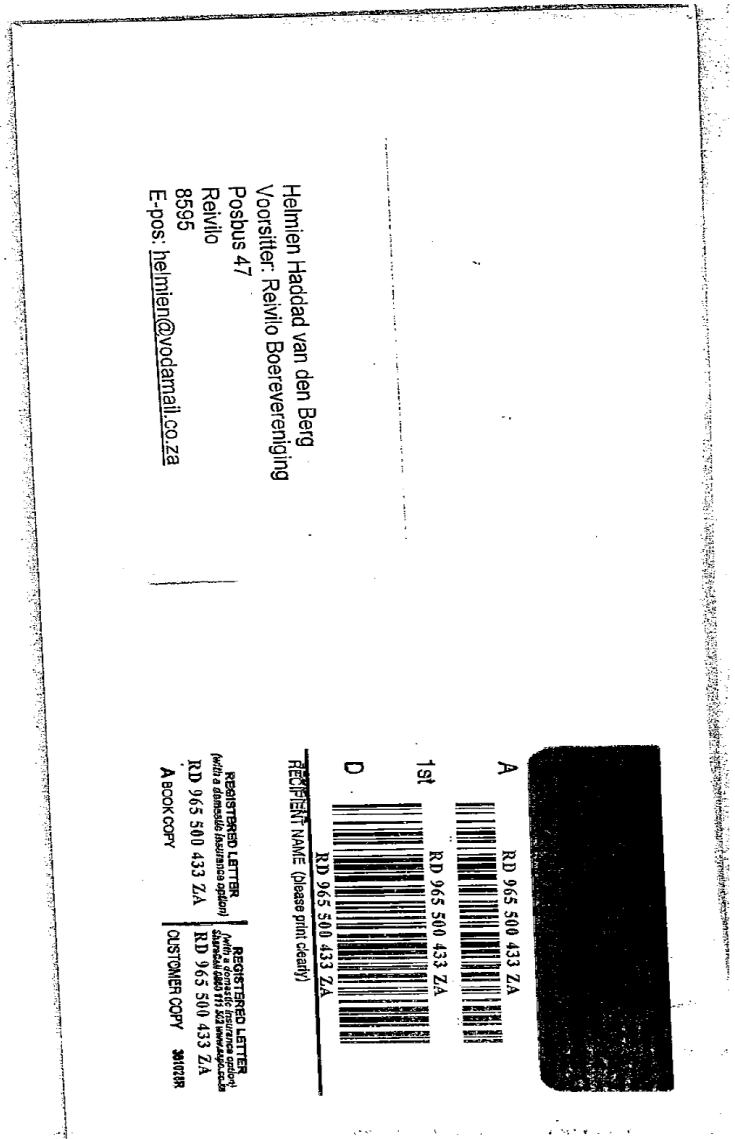
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Mr. Andries Scholtz
Wyksraadslid Reivilo
Posbus 67
Reivilo
8595



REGISTERED LETTER
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A BOOK COPY

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(with a domestic insurance option)
ShareCall 0800 111 502 www.sapa.co.za
RD 953 591 383 ZA
CUSTOMER COPY 301028R



Mr. A Abrahams
Private Bag X1601
Kimberley
8301

DWA Kimberley Regional Office

[Redacted Address]

A RD 953 591 406 ZA
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D

RD 953 591 406 ZA
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RD 953 591 406 ZA

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REGISTERED LETTER
(with a domestic insurance option)
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RD 953 591 406 ZA
CUSTOMER COPY 301028R

Mr. Gawie van Dyk
Private Bag X1601
Kimberley
8301

[Redacted Address]

A RD 953 591 397 ZA
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RD 953 591 397 ZA
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(with a domestic insurance option)
ShareCall 0860 111 602 www.sapo.co.za
RD 953 591 397 ZA
CUSTOMER COPY 301028R

Kgosikgolo TF Mankuroane
Private Bag X534
Taung Village
8584

[Redacted Address]

A RD 953 591 410 ZA
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D

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RD 953 591 410 ZA
RD 953 591 410 ZA

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ShareCall 0860 111 602 www.sapo.co.za
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CUSTOMER COPY 301028R

Appendix 10: Invitation to register as Interested and Affected Party (I&AP) that was e-mailed to the Greater Taung Local Municipality



 NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS
Internal Box 150, Private Bag X6001, Potchefstroom,
South Africa 2520
Centre for Environmental Management
Tel: +27 (0) 18 299-1588
Fax: + 27 (0) 18 299-4266
Email: 20801114@nwu.ac.za
Web: www.nwu.ac.za/cem

12 August 2014

Greater Taung Local Municipality
Taung
8584

E-mail: mothoam@taunglm.co.za

Dear Madam,

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS: INVITATION TO REGISTER AS AN INTERESTED AND AFFECTED PARTY – ESTABLISHMENT OF A PHOTOVOLTAIC SOLAR POWER PLANT WITH ASSOCIATED INFRASTRUCTURE ON THE FARM BRAKFORTEIN 897 HN, NEAR THE TOWN TAUNG IN THE NORTH WEST PROVINCE BY BRAKFORTEIN SOLAR POWER PLANT (PTY) LTD.:

DEA Reference Number: 14/12/16/3/3/2/731

The Centre for Environmental Management (CEM) has been appointed to act as the independent Environmental Assessment Practitioner (EAP) to conduct an Environmental Impact Assessment (EIA) and related processes and specialist studies for the purpose of obtaining the required authorisation for the project.

Notice is hereby given of a joint public participation process in terms of Regulation 54(3) of the EIA Regulations, published in Government Gazette No. 543 under Section 24(5) of the National Environmental Management Act (No. 107 of 1998) (NEMA) and the National Water Act, 1998 (Act No. 36 of 1998) (NWA) to undertake an Environmental Impact Assessment for the proposed establishment of a photovoltaic solar power plant.

Proposed Project: Construction of a photovoltaic solar power plant with associated infrastructure.

Location: It is proposed that the power plant is established on the farm Brakfontein 897 HN, located 35 km west of the town Taung and 27 km east of the town Reivilo in the North West Province (S27.584966°, E024.417409°)..

An application for environmental authorisation to undertake the following activities in terms of the National Environmental Management Act (107 of 1998) has been submitted to the Department of Environmental Affairs (DEA):

Activity 1 (GN R. 545 of 2010): *The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 MW or more.*

Activity 15 (GN R. 545 of 2010): *Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha more.*

Activity 11 (GN R. 545 of 2010): *The construction of canals, channels, bridges, ... buildings exceeding 50 m² in size; or infrastructure or structures covering 50 m² or more, where such construction occurs within a watercourse or within 32 m of a watercourse, measured from the edge of a water course.*

Activity 18 (GN R. 545 of 2010): *The infilling or depositing of any material of more than 5 m³ into, or the dredging, excavation, removal or moving of soil, sand, ... pebbles or rock of more than 5 m³ from a watercourse, ... but excluding where such infilling, depositing, dredging, excavation, removal or moving is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority.*

Activity 10 (GN R. 544 of 2010): *The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV.*

Activity 22 (GN R. 544 of 2010): *The construction of a road, outside urban areas, (i) with a reserve wider than 13,5 meters or, (ii) where no reserve exists where the road is wider than 8 meters.*

Activity 14 (GN R546 of 2010): *The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.*

Application for a water use license to undertake the following activities in terms of the NWA, 1998:

Section 21(c): *Impeding or diverting the flow of water in a watercourse;*

Section 21 (i): *Altering the bed, banks, course or characteristics of a watercourse*

Opportunity to register as an Interested and Affected Party: In order to register as an interested and/or affected party, please complete the attached registration form and fax or e-mail it to the contact persons given below within **30 days** from the date of this notice.

Date of Public Participation meeting: Monday, 25 August 2014

Venue for Public Participation meeting: To be confirmed

For more information contact: Mr. Jurie Moolman, Centre for Environmental Management, Internal box 150, Private bag X6001, Potchefstroom, 2520, Tel: (018) 299-1588, Fax: (018) 299-1588, E-mail: 20035551@nwu.ac.za

Yours sincerely

Mr. Theunis Meyer

Environmental Assessment Practitioner

CENTRE FOR ENVIRONMENTAL MANAGEMENT

**BRAKFORTEIN SOLAR POWER PLANT (PTY) LTD.: PHOTOVOLTAIC SOLAR POWER
STATION WITH ASSOCIATED INFRASTRUCTURE**

NAME AND SURNAME:

BUSINESS ADDRESS:

.....

.....

POSTAL ADDRESS:

.....

.....

TEL:

CELL:

FAX:

E-MAIL:

INTEREST IN THE MATTER:

.....

.....

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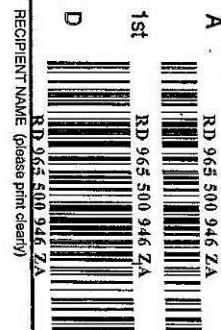
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Ms. Lerato Mokhoantle
Private Bag X1601
Kimberley
8300



1st

D

RD 965 500 946 ZA

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(With a domestic insurance option)
RD 965 500 946 ZA
A BOOK COPY

REGISTERED LETTER
(With a domestic insurance option)
RD 965 500 946 ZA
CUSTOMER COPY 34022R

Mr. Katlego Gabanagosi
Gretae Taug Municipality: MM
Private Bag 111111



1st

D

RD 965 500 929 ZA

REGISTERED LETTER
(With a domestic insurance option)

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CUSTOMER COPY 34022R

Appendix 11: Background Information Document sent to I&APs

Background Information Document for the proposed development of a Photovoltaic Power Plant on the Farm Brakfontein 897-HN, Taung by Brakfontein Solar Power Plant (Pty) Ltd

Description of the proposed project

Brakfontein Solar Power Plant (Pty) Ltd proposes to develop a Photovoltaic (PV) Power Plant and associated infrastructure, which will have a power generation and distribution capacity of 75 MegaWatt (MW) that will feed into the an existing

Eskom 132 kV line. The development will have a footprint of approximately 225 hectares.

Description of the proposed technology

The PV plant will use the solar radiation (light energy) from the sun to generate electricity through a process known as the *Photovoltaic Effect*. Individual PV cells are made of semi-conductive material, such as silicone, that absorbs solar radiation to produce electricity. The direct conversion of sunlight to electricity occurs without any moving parts or

environmental emissions during operation.

Proposed location of the power plant

It is proposed that the power plant is established on a portion of the farm Brakfontein 897 HN (S27.584966°, E024.417409°), located approximately 35 km west of the town of Taung and 27 km east of the town of Reivilo in the North-West Province (Figure 1).

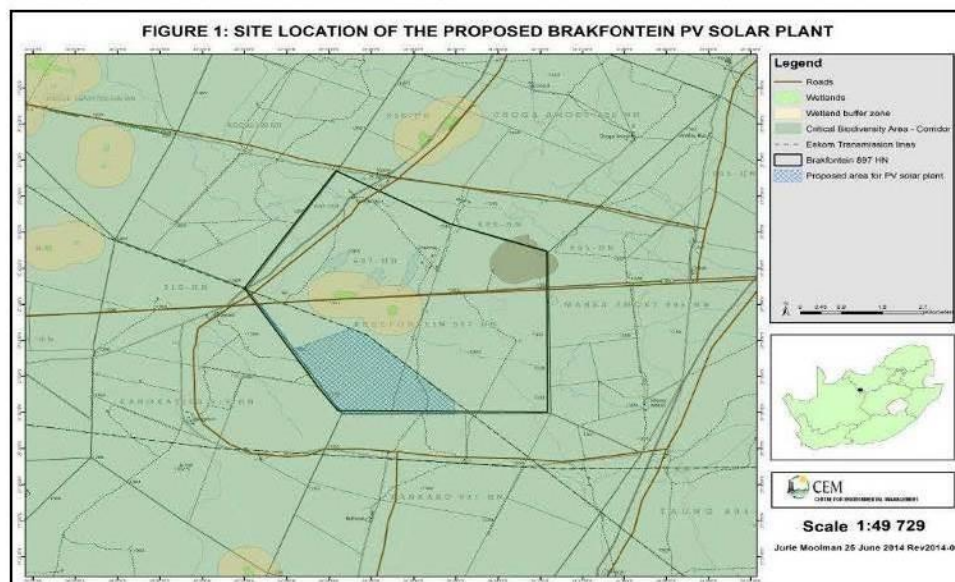
Need and desirability of the proposed project

The South African government has emphasised the need to increase South Africa's capacity to generate electricity from renewable resources, such as solar, wind and biomass energy. The purpose of the proposed PV plant is to increase the utilisation of renewable solar energy in the North-West Province for either industrial or domestic purposes.

Environmental Impact Assessment Process

Due to the extent and nature of the project, Brakfontein Solar Power Plant (Pty) Ltd is required to obtain an Environmental Authorisation (EA) prior to commencement of the activity.

The Centre for Environmental Management (CEM) has been appointed to act as the independent Environmental Assessment Practitioner (EAP) to conduct an Environmental Impact Assessment (EIA) and related processes and specialist studies for the purpose of



Brakfontein Solar PV Plant (BID)

Rev 2014-00

Page1

obtaining the required authorisation for the project.

The process is being undertaken in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA) as well as the National Water Act (No. 36 of 1998) (NWA).

Purpose of the EIA process

The EIA regulations promulgated in terms of NEMA prescribe the procedures that must be followed in the consideration, investigation, assessment, and reporting of activities that have been identified. These regulations aim to provide the competent authority with adequate information to make decisions that will ensure that activities which may have an unacceptable negative impact on the environment are not authorised, and activities that are authorised are undertaken in such a manner that the environmental impacts are managed to acceptable levels.

When an applicant proposes to undertake identified activities, applications for authorisations must be submitted to the competent authorities (in this case, the Department of Environmental Affairs - DEA). All such applications must be supported by reports that are compiled upon completion of the prescribed assessment procedures. After the competent authorities have made decisions on the applications, appeals may be lodged against the decisions, or parts of the decisions.

Brakfontein Solar PV Plant (BID)

The aims of environmental assessments are to:

- establish the environmental sensitivity of the site;
- determine environmental impacts related to the project;
- identify alternatives to the current proposals;
- inform Interested and Affected Parties (e.g. neighbours & community groups) about the project and provide them the opportunity to identify issues and alternatives;
- assess the proposals and the issues raised.

What type of assessment process will be undertaken?

The EIA Regulations provide for two types of assessment processes i.e.:

- A Basic Assessment process;
- A Scoping and Environmental Impact Assessment process.

The applicant may not commence with the proposed activity without environmental authorisation after the investigation, assessment and communication of potential impacts have been undertaken that followed the **full EIA** process because of the specific listed activities that are triggered by the proposed development.

Which "listed activities" are triggered by the proposed development?

The proposed development includes the following activities:

Authorisations required in terms of NEMA:

- Activity 10 as published in GN.R. 544 of 2010:

The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV; or (ii) Inside urban areas or industrial complexes with a capacity of 275 kV or more.

- Activity 22 as published in GN.R. 544 of 2010:

The construction of a road, outside urban areas, (i) with a reserve wider than 13,5 meters or, (ii) where no reserve exists where the road is wider than 8 metres.

- Activity 1 as published in GN R. 545 of 2010:

The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 MW or more.

- Activity 11 as published in GN R. 545 of 2010:

The construction of canals, channels, bridges, buildings exceeding 50 m² in size; or infrastructure or structures covering 50 m² or more, where such construction occurs within a watercourse or within 32 m of a watercourse, measured from the edge of a water course.

Rev 2014-00

Page2

- Activity 15 as published in GN R. 545 of 2010:

Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha or more; except where such physical alteration takes place for: (i) Linear development activities; or (ii) Agriculture or afforestation where Activity 16 in this schedule will apply.

- Activity 18 as published in GN R. 545 of 2010:

The infilling or depositing of any material of more than 5 m³ into, or the dredging, excavation, removal or moving of soil, sand, ... pebbles or rock of more than 5 m³ from a watercourse, ... but excluding where such infilling, depositing, dredging, excavation, removal or moving is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority.

- Activity 14 as published in GN R. 546 of 2010:

The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.

Licenses required in terms of the National Water Act No. 36 of 1998

Section 21(c):

Brakfontein Solar PV Plant (BID)

Impeding or diverting the flow of water in a watercourse.

Section 21(i):

Altering the bed, banks, course or characteristics of a watercourse.

The environmental assessment process for this project will involve the following steps:

- Engaging with competent authorities
- Development of Background Information Document (BID) & Advertisements (newspaper & site notices)
- I&AP registration & circulation of BID to registered I&APs
- Public participation meeting
- Drafting of Scoping Report (SR)
- Circulation of draft SR to registered I&APs for review
- Revision of SR, based on I&AP comments
- Submission of final SR to authorities
- Conducting of specialist studies
- Drafting of Environmental Impact Report (EIR) & Environmental Management Programme (EMP)
- Circulation of draft EIR & EMP to registered I&APs for review
- Revision of draft EIR & EMP, based on I&AP comments
- Submission of final EIR & EMP to competent authority for environmental authorisation

- Informing registered I&APs of the decisions by competent authorities (letter & newspaper ad).

What is the role of I&APs in the EIA process?

One of the most important parts of the environmental authorisation processes is public consultation and participation, which provides I&APs with the opportunity to gain a better understanding of the proposed development and to raise any environmental issues or concerns they may have. You are invited to register as an I&AP in the environmental assessment processes of the proposed project.

How do I register as an I&AP?

Please note that in order to be registered as an I&AP, you must request that your name be added to the registered I&AP list or provide written comments on the proposal or raise issues/concerns that you would like to be addressed in the assessment (see attached form). Future correspondence will only be distributed to registered I&APs.

Details of the EAP: Mr. Theunis Meyer

Telephone: 018 299 1467 Fax: 086 513 7996

E-mail: theunis.meyer@nwu.ac.za

Rev 2014-00

Page3

Contact person for I&AP registration and all correspondence regarding the environmental authorisation processes: Mr. Jurie Moolman

Centre for Environmental Management

Private Bag X6001, Potchefstroom, 2520

Telephone: 018 299 1588 Fax: 018 299 4266

E-mail: 20035551@nwu.ac.za

<p align="center">INTERESTED & AFFECTED PARTY REGISTRATION FORM</p> <p align="center">Application for for the proposed development of a Photovoltaic Power Plant on the Farm Brakfontein 897- HN, Taung by Brakfontein Solar Power Plant (Pty) Ltd</p>

1. I, hereby, acknowledge receipt of information regarding the proposed application.

I wish to register as an interested and affected party and receive further information	
I DO NOT wish to register as an interested and affected party and do not wish to receive further information	

2. Name and surname:

3. Name of business/entity which is represented:

4. Physical Address:

5. Language preference:

Afrikaans ☐ English ☐ Setswana ☐

6. Communication preference?

Letter ☐ Fax ☐ E-mail ☐

SMS ☐ Please call me ☐

7. Postal address:

8. Telephone number:

9. Cellphone number:

10. Fax number:

11. E-mail address:

12. Do you wish to receive future communication?

Yes ☐ No ☐

13. Please indicate any initial issues of concern regarding the proposed project:

14. Please indicate any suggestions to improve the proposed project and the public participation process:

Appendix 12: Proof of completed I&AP registration forms received from I&APs

**INTERESTED & AFFECTED PARTY
REGISTRATION FORM**
Application for for the proposed development of a
Photovoltaic Power Plant on the Farm Brakfontein 897-
HN, Taung by Brakfontein Solar Power Plant (Pty) Ltd

1. I, hereby, acknowledge receipt of
information regarding the proposed
application.

I wish to register as an interested and affected party and receive further information	<input checked="" type="checkbox"/>
I DO NOT wish to register as an interested and affected party and do not wish to receive further information	<input type="checkbox"/>

2. Name and surname:
BEN - CAREL VAN
ASWEGEN

3. Name of business/entity which is
represented:
OWNER - PORTION 2 OF FARM
KANGLATJES 919 HN, NW PROVINCE

4. Physical Address:
644 VINCENT STR
MOBELETA PARK
PRETORIA

5. Language preference:

Afrikaans ☒ English ☐ Setswana ☐

Brakfontein Solar PV Plant (BID)

6. Communication preference?

Letter ☒ Fax ☐ E-mail ☒

SMS ☐ Please call me ☐

7. Postal address:
P.O. BOX 101008
MOBELETA PARK
0167

8. Telephone number:
(DAY) 011 6084649

9. Cellphone number:
082-308-0654

10. Fax number:

11. E-mail address:
BEN@GADMIN.CO.ZA

12. Do you wish to receive future
communication?

Yes ☒ No ☐

13. Please indicate any initial issues of
concern regarding the proposed project:

SEE ATTACHED.

14. Please indicate any suggestions to
improve the proposed project and the
public participation process:

Rev 2014-00

Page5

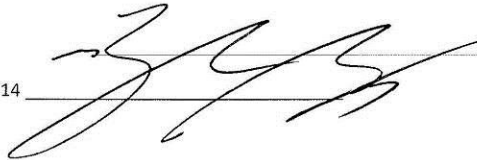
Brakfontein Solar Power Plant (Pty) Ltd

FIRST CONCERNS – 4th AUGUST 2014

I, Mr Ben-Carel van Aswegen owner of Portion 2 of Farm Kangkatjes 919 HN, North West Province have the following concerns and questions.

1. Who are ALL the parties that will benefit from this project?
2. What Mega Watt will be generated and contributed to Eskom grid?
3. Have ALL neighbours and relevant Farmers Associations been notified?
4. Who will control and manage the construction of the site and thereafter the running of the project? Time period of construction and time period of the project?
5. What will happen to the rest of the property?
6. Extent of Surveys to be conducted and over what period?
7. Concern - Poaching (Snaring, Killing and Hunting) and theft of wild life, cattle and other livestock and general theft on surrounding properties WILL increase due to the influx of people not from the area.
8. Concern - VERY high risk of veld fires will increase due to camp fires etc. especially in dry and winter seasons.
9. Concern - VERY high risk of water use (over consumption) and pollution (sewerage, chemical, oil and diesel spills) to natural shallow underground water supply.
10. Concern - Monitoring natural water levels underground AND rain flow and storm water.
11. Concern - Noise and dust pollution.
12. Concern - No electricity sources. How will cooking and lighting facilities be supplied on site?
13. Concern - High increase in littering and refuse removal.
14. How many people to be employed during construction and what time period? How many people to be employed after construction and for what time period? Where will these people be sourced from? Skills of people required?
15. Concern – Salaries offered to employees.
16. Buildings to be constructed on site?
17. EMP (Environmental Management Programme) – Who will enforce EMP?
18. Seriousness of ALL impacts on the environment.
19. How many holes for footings for the solar panels to be drilled and/or dig and then concreted? Huge damage to land and high risk of erosion . How will the land ever be rehabilitated?
20. Where will employees be accommodated (after hours)?
21. Concern – New roads and existing roads. Condition and maintain.
22. Concern – Socio-Economic.
23. Concern – Site Security.

Signed by Mr BC van Aswegen on the 4th August 2014



PO Box 101008
Moreleta Plaza
0167

Tel: Office Hours 011-608-4649 or 082-308-0654

E-Mail: ben@gadmin.co.za

**INTERESTED & AFFECTED PARTY
REGISTRATION FORM**
Application for for the proposed development of a
Photovoltaic Power Plant on the Farm Brakfontein 897-
HN, Taung by Brakfontein Solar Power Plant (Pty) Ltd

1. I, hereby, acknowledge receipt of
information regarding the proposed
application.

I wish to register as an interested and affected party and receive further information	
I DO NOT wish to register as an interested and affected party and do not wish to receive further information	

2. Name and surname:
Kevin Spring

3. Name of business/entity which is
represented:
Letso/apehony Bely

4. Physical Address:
Postbus 230 Brakfontein
Reute

5. Language preference:
Afrikaans ☒ English ☐ Setswana ☐

Brakfontein Solar PV Plant (BiD)

6. Communication preference?

Letter ☒ Fax ☐ E-mail ☐

SMS ☐ Please call me ☐

7. Postal address:
Postbus 230
Reute

8. Telephone number:
0829756947

9. Cellphone number:

10. Fax number:

11. E-mail address:

12. Do you wish to receive future
communication?

Yes ☒ No ☐

13. Please indicate any initial issues of
concern regarding the proposed project:

① Verleëbreinthe

② Verleëbreinthe van iSesb.

14. Please indicate any suggestions to
improve the proposed project and the
public participation process:

Rev 2014-00

Page5

TOTAL P.05

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Page 4 of 4

**BRAKFontein SOLAR POWER PLANT (PTY) LTD.: PHOTOVOLTAIC SOLAR POWER
STATION WITH ASSOCIATED INFRASTRUCTURE**

NAME AND SURNAME: KAGISO PET BOTHA.
 BUSINESS ADDRESS: 573 TAWANA STREET, BOIPELO
LOCATION
REIVIND, 8595.
 POSTAL ADDRESS: P.O. BOX 56
BOIPELO LOCATION
REIVIND 8595.
 TEL: 084 68 93 236 or
 CELL: 060 460 060 406 7927
 FAX: _____
 E-MAIL: kagisobotha74@gmail.com.
 INTEREST IN THE MATTER: BOIPELO AND REIVIND
COMMUNITY REPRESENTATIVE.
 * HIGH RATE OF UNEMPLOYMENT
 * YOUTH AND WOMEN.
 * _____

CEM 2014-061

Brakfontein PV Solar EIA

Rev 2014-00

P.05 018 2994266

CENTRE FOR ENVIRONMENTAL MANAGEMENT

09-AUG-2014 18:47

TOTAL P.05

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Page 4 of 4

**BRAKFONTEIN SOLAR POWER PLANT (PTY) LTD.: PHOTOVOLTAIC SOLAR POWER
STATION WITH ASSOCIATED INFRASTRUCTURE**

NAME AND SURNAME: DAVID LEBANG MOTHEO
 BUSINESS ADDRESS: 546 DIPONE STREET BOIPELO
LOCATION
REIVILLO, 8595
 POSTAL ADDRESS: P.O. BOX 56
BOIPELO LOCATION
REIVILLO, 8595
 TEL: 084 7652 231
 CELL: 060 344 9672
 FAX: _____
 E-MAIL: DAVIDMOTHEO@gmail.com
 INTEREST IN THE MATTER: BOIPELO AND REIVILLO COMMUNI-
TY REPRESENTATIVE
 *

CEM 2014-061

Brakfontein PV Solar EIA

Rev 2014-00

P.05 018 2994266

CENTRE FOR ENVIRONMENTAL MANAGEMENT

09-AUG-2014 18:47

**INTERESTED & AFFECTED PARTY
REGISTRATION FORM**

Application for for the proposed development
of a Photovoltaic Power Plant on the Farm
Brakfontein 897-HN, Taung by Brakfontein
Solar Power Plant (Pty) Ltd

1. I, hereby, acknowledge receipt of
information regarding the proposed
application.

I wish to register as an interested and affected party and receive further information	<input checked="" type="checkbox"/>
I DO NOT wish to register as an interested and affected party and do not wish to receive further information	<input type="checkbox"/>

2. Name and surname:
ARMANOT JOUBERT

3. Name of business/entity which is
represented:
VIDIGENIX (PTY) LTD

Brakfontein Solar PV Plant (BID)

4. Physical Address:
514 CHIRONIA AVENUE
HELDERKRUIJN
1724

5. Language preference:
Afrikaans ☐ English ☒ Setswana ☐

6. Communication preference?
Letter ☐ Fax ☐ E-mail ☒
SMS ☐ Please call me ☐

7. Postal address:
514 CHIRONIA AVE
HELDERKRUIJN
1724

8. Telephone number:
(011) 764 3731

9. Cellphone number:
084 512 3656

10. Fax number:

11. E-mail address:
administration@vidigenix.co.za

12. Do you wish to receive future
communication?

Yes ☒ No ☐

13. Please indicate any initial issues of
concern regarding the proposed project:

14. Please indicate any suggestions to
improve the proposed project and the
public participation process:

Rev 2014-00

Page5

Appendix 13: Copy of letter informing I&APs that the Scoping Report is available for review.



Sentrum vir Omgewingsbestuur
Tel: +2718 299-4279
Faks: +2718 299-4266
E-pos: 20035551@nwu.ac.za
2014-10-28

Various Registered Interested and Affected Parties
Verskeie Geregistreerde Geïnteresseerde en
Geëffekteerde Partye

APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED CONSTRUCTION OF A PHOTOVOLTAIC SOLAR POWER PLANT WITH ASSOCIATED INFRASTRUCTURE ON THE FARM BRAKFORTEIN 897 HN, BETWEEN TAUNG AND REIVILLO IN THE NORTH WEST PROVINCE: Availability of Scoping Report for public comment

KENNISGEWING VAN 'N OMGEWINGSIMPAAKEVALUERINGSPROSES: UITNODIGING OM TE REGISTREER AS BELANGHEBBENDE EN GEAFEKTEERDE PARTY – OPRIG VAN 'N FOTOVOLTAÏESE KRAGSTASIE MET MEEGAANDE INFRASTRUKTUUR OP DIE PLAAS BRAKFORTEIN 897 HN, TUSSEN TAUNG EN REIVILLO IN DIE NOORDWES PROVINSIE: Beskikbaarheid van Bestekverslag vir publieke kommentaar

Brakfontein Solar PV Plant Pty (Ltd) applied in July 2014 to the Department of Environmental Affairs for environmental authorisation for the construction of a solar PV plant, on the farm Brakfontein 897 HN in the vicinity of the towns Reivilo and Taung in the North West Province. An Environmental Impact Assessment process is currently under way before the Application for Environmental Authorisation and the Environmental Management Programme can be considered by the Department.

Please be informed that the Scoping Report is available for public review from Wednesday, 29 October 2014 to Friday, 28 November 2014. Hard copies of the report are available at the Greater Taung Local Municipality in Taung, as well as from the Reivilo Farmers Union in Reivilo, North West Province. Electronic copies are available on request from Mr Jurie Moolman, contact details indicated below.

For the Scoping Report at the Greater Taung Local Municipality:

Mrs Makhumo Mothoa
Town and Regional Planner
Tel: 053 994 9453

For the Scoping Report at the Reivilo Farmers Union:

Mrs Leonie van den Berg
Secretary
Tel: 084 503 6209

As a registered interested and affected party you are invited to study the report and submit any comments by 28 November 2014 to Mr Jurie Moolman, Centre for Environmental Management, Private Bag X6001, Potchefstroom, 2520 or fax: 086 513 7996 or e-mail 20035551@nwu.ac.za

Brakfontein Solar PV Plant Pty (Ltd) het in Julie 2014 by die Departement van Omgewingsake aansoek gedoen vir 'n Omgewingsmagtiging om 'n sonkragstasie, met geassosieerde infrastruktuur, op die plaas Brakfontein 897 HN, naby die dorpe van Reivilo en Taung in die Noordwes Provinsie op te rig. 'n Omgewingsimpakbepalingsproses word tans gevolg voordat die Omgewingsimpakverslag en Omgewingsbestuursprogram oorweeg en 'n Omgewingsmagtiging uitgereik kan word.

Neem asseblief kennis dat die Omgewingsimpakstudiebestekverslag beskikbaar is vir kommentaar vanaf Woensdag, 29 Oktober 2014 tot Vrydag, 28 November 2014. Harde kopieë van die verslag is beskikbaar by die Greater Taung plaaslike munisipaliteit in Taung, sowel as die Reivilo Boere-Unie in Reivilo, Noordwes Provinsie. Elektroniese kopieë is op versoek beskikbaar by Mnr. Jurie Moolman, kontakbesonderhede soos onder aangedui.

Vir die bestekverslag by die Greater Taung plaaslike munisipaliteit:

Me Makhumo Mothoa
Stads - en Streeksbeplanner
Tel: 053 994 9453

Vir die bestekverslag by die Reivilo Boere-Unie:

Mev Leonie van den Berg
Sekretaresse
Tel: 084 503 6209

As 'n geregistreerde geïnteresseerde en geïmpakteerde party is u welkom om die verslag te bestudeer en enige kommentaar teen 28 November 2014 te stuur aan Mnr. Jurie Moolman, Sentrum vir Omgewingsbestuur, Privaatsak X6001, Potchefstroom, 2520 of faks: 086 513 7996 of e-pos: 20035551@nwu.ac.za.

Yours Sincerely/Die uwe

Theunis Meyer

Environmental Assessment Practitioner/Omgewingspraktisyn

Appendix 14: Proof of newspaper advertisements published in Stellalander (23 July 2014)

PAGE 18

STELLALANDER

23 JULY 2014



At Level 3 – In first place is Brya Rae Gillespie with Bella from Vryburg.



At Level 0 – In third place is Dawie Janse van Rensburg with Kuruman from Hartswater.



Overall – In third place is Amelia Kemp with Spot from Vryburg, in first place is Brya Rae Gillespie with Bella from Vryburg and in second place is Maverick Gillespie with Silver Waltz from Vryburg.

NOTIFICATION OF PUBLIC PARTICIPATION PROCESS DEA Reference Number: 14/12/16/3/2/731

ESTABLISHMENT OF A PHOTOVOLTAIC SOLAR POWER PLANT WITH ASSOCIATED INFRASTRUCTURE BY BRAKFOONTEIN SOLAR POWER PLANT (PTY) LTD.

Proposed Project: Construction of a photovoltaic solar power plant with associated infrastructure.
Location: farm Brakfontein 897 HN, located 35 km west of the town Taung and 27 km east of the town Reivilo in the North West Province (S27 584969, E204 417409).
Notice is hereby given of a joint public participation process in terms of Regulation 54(3) of the EIA Regulations, published in Government Gazette No. 343 under Section 24(5) of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and the National Water Act, 1998 (Act No. 36 of 1998) (NWA) to undertake the following listed activities:

Application for environmental authorisation to undertake the following activities in terms of the NEMA, 1998:
Activity 1 (GN R. 545 of 2010): The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 MW or more.

Activity 15 (GN R. 545 of 2010): Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha more.

Activity 11 (GN R. 545 of 2010): The construction of canals, channels, bridges, ... buildings exceeding 50 m² in size; or infrastructure or structures covering 50 m² or more, where such construction occurs within a watercourse or within 32 m of a watercourse, measured from the edge of a water course.

Activity 18 (GN R. 545 of 2010): The infilling or depositing of any material of more than 5 m³ in size, or the dredging, excavation, removal or moving of soil, sand, ... pebbles or rock of more than 5 m³ from a watercourse, ... but excluding where such infilling, depositing, dredging, excavation, removal or moving is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority.

Activity 19 (GN R. 544 of 2010): The construction of facilities or infrastructure for the transmission and distribution of electricity:
(i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV;

Activity 22 (GN R. 544 of 2010): The construction of a road, outside urban areas, (i) with a reserve wider than 13.5 meters or; (ii) where no reserve exists where the road is wider than 8 meters.

Activity 14 (GN R. 546 of 2010): The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.

Application for a water use license to undertake the following activities in terms of the NWA, 1998:

Section 21(c): Impeding or diverting the flow of water in a watercourse;

Section 21 (b): Altering the bed, banks, course or characteristics of a watercourse;

Opportunity to register as an Interested and Affected Party: In order to register as an interested and/or affected party, please submit your name, contact information (preferred method of notification, e.g. e-mail address or fax number) and an indication of any direct business, financial, personal or other interest in the matter to the contact person below within 30 days from the date of this notice.

Date of Public Participation meeting: Monday, 25 August 2014

Venue for Public Participation meeting: To be confirmed

For more information contact: Mr. Julie Moolman, Centre for Environmental Management, Internal Box 150, Private Bag X6001, Potchefstroom, 2520, Tel: (018) 299-1588, Fax: (018) 299-4266, E-mail: 20035551@nw.ac.za

KITSISO YA TSEOKAROLO YA SETSHABA DEA Reference Number: 14/12/16/3/2/731

ESTABLISHMENT OF A PHOTOVOLTAIC SOLAR POWER PLANT WITH ASSOCIATED INFRASTRUCTURE BY BRAKFOONTEIN SOLAR POWER PLANT (PTY) LTD.

Poroleke e e tshetshang: Go aga setshaba sa go fetisa motlakase wa marang a letshatši le mafaratshatsha a a amegang.
Letlole: Polesa ya Brakfontein 897 HN e o tshetshang 35 km go ya kua boithaba jwa taung ya Taung le 27 km go ya kua boithaba jwa taung ya Reivilo mo North West Province (S27 584969, E204 417409).

Se ke kitsiso e e kopaneng ya tseokarolo ya setshaba go lebelele Regulation 54(3) ya EIA Regulations, e e gatisitsweng mo Government Gazette No. 343 mo Section 24(5) ya National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) le National Water Act, 1998 (Act No. 36 of 1998) go diragatsa ditiro tse di mo lemaneng tse di latelang:

Kopo ya fetisa ya tshomaro ya tikologo go tswelatsa ditiro tse di latelang go lebelele NEMA, 1998:

Tiro 1 (GN R. 545 ya 2010): Go aga mafelo kgotla mafaratshatsha a go fetisa motlakase e bile thagiso ya motlakase oo e le 20 MW kgotla go feta.

Tiro 15 (GN R. 545 ya 2010): Go fetola letshatši le le se tshabang, le le senang badiri kgotla le le se tshabang le dirisiwa go re le dirisiwa go aga batho matlo, mabentlele, dikgweba, di-indasteri kgotla ditheo, mme lefelo lotlhe le le fetolang e le 20 ha go feta.

Tiro 11 (GN R. 545 ya 2010): Go aga dikana, masele, marogo, ... dikago tse di fang botlana jwa 50 m³ kgotla sa mafaratshatsha kgotla di thomoso tsa boala tsa 50 m³ le go feta, mo go aga go go diragatsa mo lelang go moela kgotla 32 m gaudi le moela, go lekanngwa go tswa tswa mo lebohang la moela.

Tiro 18 (GN R. 545 ya 2010): Go fetsa kgotla go tsenya sengwe le sengwe se se fang 5 m³ mo lelang, kgotla go phepa tsaba-ka-go-naba, go epa, go naba kgotla go tsaba ga mnu, sana, ... matlaba kgotla nantswa a a fang 5 m³ go swa mo moeleng, ... mme go se tsenyeletswa mo go tsenyeletswa, tsenngwang, phepatatswang-ka-go-naba, go epang, go ntsihsang kgotla go tsenyeletswa ka mabakaelo a peakanyo go ya ka leano la taolo le go dumalaneng ka lone le environmental authority e e maleba.

Tiro 10 (GN R. 544 ya 2010): Go aga mafelo kgotla mafaratshatsha a go tsamaisa le go aba motlakase: (i) ka kua ntle ga mafelo a ditiro kgotla dikago tsa di-indasteri go na le bokgoni bo bo fang 33 mme bo sa tshetshela 275 kV.

Tiro 22 (GN R. 544 ya 2010): Go aga tsela, ka kua ntle ga mafelo a ditiro, (i) tsela e le mafetokore a a bophara bo bo fang 13.5 meters kgotla; (ii) la tsela e sena mafetokore mme bophara jwa yona bo fang 8 meters.

Tiro 14 (GN R. 546 ya 2010): Go nsha dimela mo lefelong le le 5 ha kgotla go feta mme 75% kgotla go feta ya dimela e dirwa ke dimela tsa mmatota tsa lefelo leo.

Kopo ya water use license go tswelatsa ditiro tse di latelang go lebelele NWA, 1998:

Section 21(c): Ghibela kgotla go fetsa kelelo ya metsi mo lemaneng;

Section 21 (b): Go fetola boalo jwa, mabopo a, mosele wa kgotla senelo sa moela;

Tshono ya lebelelo ya batho ba ba nang le kgathetho le ba ba amegang: Go lebelela jaaka motho o o nang le kgathetho kgotla o o amegang, tswelatswe romela letla le gago, tshetshetso go kopelano (tshe mkgaga wa kgolagano o o tla go humedisa; jaaka a aarea ya email le nomoro ya "ax) le mofuta wa kgathetho ya gago (kgathetho ya gweba, di shelele, motho ka nni, kgotla kgathetho e nngwe) mo ntlheng e. Romela tshetshetso e kwa mothong o o kwadileng ya fatše, mo kitsisong e, mo nakong ya matlaba a le maseane a mararo (50) go tswa ka nako ya kgathetho ya kitsiso e.

Letlha la kopano ya Tseokarolo ya Setshaba: Mosupologo, 25 Phalane 2014

Lelele la kopano ya Tseokarolo ya Setshaba: Le tla thothomiswa

Go kopa tshetshetso e e fang e, kgolaganyo le: Rre Julie Moolman, Centre for Environmental Management, Internal Box 150, Private Bag X6001, Potchefstroom, 2520, Tel: (018) 299-1588, Fax: (018) 299-4266, E-mail: 20035551@nw.ac.za.

Western Mountain Games results

Vryburg- The latest Western Mountain Games was the biggest show so far, 54 riders competed this year. The next Western Games will take place on Saturday (9 August).

The results from the last tournament are as follows:

- Level 0 - 1 Nastassja Sweeney/Mina-moo (Stella)
- 2 Gift Leeuw/Magic Re (Hartswater)
- 3 Dawie Janse van Rensburg/Kuruman (Hartswater)
- Level 1 - 1 Lize-marie van der Nest/Lady Megz (Vryburg)
- 2 Johane Goosen/Blondie (Delareyville)
- 3 Gideon Conradie/Belzar (Magagong)
- Level 2 - 1 Albie Kamfer/Danzig's Darling (Vryburg)
- 2 Pieter Conradie/Col. Sanders (Delareyville)
- 3 Gerlo Greyling/Kuruman (Hartswater)
- Level 3 - 1 Brya Rae Gillespie/Bella (Vryburg)
- 2 Maverick Gillespie/Macarni Law (Vryburg)
- 3 Maverick Gillespie/Silver Waltz (Vryburg)
- Overall - 1 Brya Rae Gillespie/Bella (Vryburg)
- 2 Maverick Gillespie/Silver Waltz (Vryburg)
- 3 Amelia Kemp/Spot (Vryburg)



MORGAN ABATTOIR (PTY) LTD

Reg. No. 1998/12265/07

2107 Javelin Road, Geduld Ext 4, Springs, 1560
P.O. Box 808, Springs, 1560

**Aankoop van Slagvee,
direk vanaf die boer en
voerkraal teen
markverwante pryse.**

**Kontak my gerus.
Ek bedien die Noordwes en
Noordkaap Provinsie.**

**Pierre Swanepoel
082 651 1863**

Voorwaardes geld.

Appendix 15: Copies of site notices printed in three languages (English, Setswana and Afrikaans)

NOTIFICATION OF PUBLIC PARTICIPATION PROCESS

DEA Reference Number: **14/12/16/3/3/2/731**

ESTABLISHMENT OF A PHOTOVOLTAIC SOLAR POWER PLANT WITH ASSOCIATED INFRASTRUCTURE BY BRAKFORTEIN SOLAR POWER PLANT (PTY) LTD.

Proposed Project: Construction of a photovoltaic solar power plant with associated infrastructure.

Location: farm Brakfontein 897 HN, located 35 km west of the town Taung and 27 km east of the town Reivilo in the North West Province (S27.584966°, E024.417409°).

Notice is hereby given of a joint public participation process in terms of Regulation 54(3) of the EIA Regulations, published in Government Gazette No. 543 under Section 24(5) of the National Environmental Management Act (No. 107 of 1998) (NEMA) and the National Water Act, 1998 (Act No. 36 of 1998) (NWA) to undertake the following listed activities:

Application for environmental authorisation to undertake the following activities in terms of the NEMA, 1998:

Activity 1 (GN R. 545 of 2010): The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 MW or more.

Activity 15 (GN R. 545 of 2010): Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha more.

Activity 11 (GN R. 545 of 2010): The construction of canals, channels, bridges, ... buildings exceeding 50 m² in size; or infrastructure or structures covering 50 m² or more, where such construction occurs within a watercourse or within 32 m of a watercourse, measured from the edge of a water course.

Activity 18 (GN R. 545 of 2010): The infilling or depositing of any material of more than 5 m³ into, or the dredging, excavation, removal or moving of soil, sand, ... pebbles or rock of more than 5 m³ from a watercourse, ... but excluding where such infilling, depositing, dredging, excavation, removal or moving is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority.

Activity 10 (GN R. 544 of 2010): The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV.

Activity 22 (GN R. 544 of 2010): The construction of a road, outside urban areas, (i) with a reserve wider than 13,5 meters or; (ii) where no reserve exists where the road is wider than 8 meters.

Activity 14 (GN R546 of 2010): The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.

Application for a water use license to undertake the following activities in terms of the NWA, 1998:

Section 21(c): Impeding or diverting the flow of water in a watercourse;

Section 21 (i): Altering the bed, banks, course or characteristics of a watercourse

Opportunity to register as an Interested and Affected Party: In order to register as an interested and/or affected party, please submit your name, contact information (preferred method of notification, e.g. e-mail address or fax number) and an indication of any direct business, financial, personal or other interest in the matter to the contact person below within **30 days** from the date of this notice.

Date of Public Participation meeting: Monday, 25 August 2014

Venue for Public Participation meeting: To be confirmed.

For more information contact: Mr. Jurie Moolman, Centre for Environmental Management, Internal box 150, Private bag X6001, Potchefstroom, 2520, Tel: (018) 299-1588, Fax: (018) 299-4266, E-mail: 20035551@nwu.ac.za.

KITSISO YA TSEOKAROLO YA SETŠHABA

DEA Reference Number: **14/12/16/3/3/2/731**

**ESTABLISHMENT OF A PHOTOVOLTAIC SOLAR POWER PLANT WITH ASSOCIATED
INFRASTRUCTURE BY BRAKFORTEIN SOLAR POWER PLANT (PTY) LTD.**

Porojeke e e tshitsingwang: Go aga setsha sa go fetlha motlakase wa marang a letsatsi le mafaratlhatlha a a amegang.

Lefelo: Polase ya Brakfontein 897 HN e e fitlhelwang 35 km go ya kwa bophirima jwa toropo ya Taung le 27 km go ya kwa bothaba jwa toropo ya Reivilo mo North West Province (S27.584966°, E024.417409°).

Se ke kitsiso e e kopaneng ya tseokarolo ya setšhaba go lebilwe Regulation 54(3) ya EIA Regulations, e e gatisitsweng mo Government Gazette No. 543 mo Section 24(5) ya National Environmental Management Act, 1998 (Act No. 107 ya 1998) (NEMA) le National Water Act, 1998 (Act No. 36 ya 1998) go diragatsa ditiro tse di mo lenaaneng tse di latelang:

Kopo ya tetla ya tshomarelo ya tikologo go tswelletsa ditiro tse di latelang go labilwe NEMA, 1998:

Tiro 1 (GN R. 545 ya 2010): Go aga mafelo kgotsa mafaratlhatlha a go fetlha motlakase e bile tihagiso ya motlakase oo e le 20 MW kgotsa go feta.

Tiro 15 (GN R. 545 ya 2010): Go fetola lefatšhe le le sa tihabololwang, le le senang badudi kgotsa le le sa tiholeng le dirisiwa go re le dirisetswe go agela batho matlo, mabentlele, dikgwebo, di-indaseteri kgotsa ditheo, mme lefelo lotlhe le le fetolwang e le 20 ha le go feta.

Tiro 11 (GN R. 545 ya 2010): Go aga dikanala, mesele, marogo, ... dikago tse di fetang botona jwa 50 m²; kgotsa mafaratlhatlha kgotsa ditlhomiso tsa boalo jwa 50 m² le go feta, mo go aga go diragalang mo teng ga moela kgotsa 32 m gaufi le moela, go lekannwa go tswa mo lebopong la moela.

Tiro 18 (GN R. 545 ya 2010): Go tlatsa kgotsa go tsenya sengwe le sengwe se se fetang 5 m² mo teng, kgotsa go phepafatsa-ka-go-ntsha, go epa, go ntsha kgotsa go sutisa ga mmu, santa, ... matlapa kgotsa mantswe a a fetang 5 m² go tswa mo moeleng, ... mme go sa tsenyeletswe mo go tlatsiwa, go tsenngwang, go phepafatswang-ka-go-ntsha, go epiwang, go ntshiwa kgotsa go sutisiwa ka maikaelelo a paakanyo go ya ka leano la taolo le go dumelanweng ka lona le environmental authority e e maleba.

Tiro 10 (GN R. 544 ya 2010): Go aga mafelo kgotsa mafaratlhatlha a go tsamaisa le go aba motlakase: (i) ka kwa ntle ga mafelo a ditoropo kgotsa dikago tsa di-indaseteri go na le bokgoni bo bo fetang 33 mme bo sa fete 275 kV.

Tiro 22 (GN R. 544 ya 2010): Go aga tsela, ka kwa ntle ga mafelo a ditoropo, (i) tsela e na le matlhakore a a bophara bo bo fetang 13,5 meters kgotsa; (ii) fa tsela e se na matlhakore mme bophara jwa yona bo feta 8 meters.

Tiro 14 (GN R546 ya 2010): Go ntsha dimela mo lefelong le le 5 ha kgotsa go feta mme 75% kgotsa go feta ya dimela e diriwa ke dimela tsa mmotata tsa lefelo leo.

Kopo ya water use license go tswelletsa ditiro tse di latelang go lebilwe NWA, 1998:

Section 21(c): Go thibela kgotsa go faposa kelelo ya metsi mo moeleng;

Section 21 (i): Go fetola boalo jwa, mabopo a, mesele wa kgotsa semelo sa moela;

Tšhono ya ikwadiso ya batho ba ba nang le kgatlhego le ba ba amegileng: Go ikwadisa jaaka motho o o nang le kgatlhego kgotsa o o amegileng, tsweetswee romela leina la gago, tshedimotseto ya kgolagano (itsise mokgwa wa kgolagano o o tla go itumedisang; jaaka aterese ya email le nomoro ya fax) le mofuta wa kgatlhego ya gago (kgatlhego ya kgwebo, ditšhelete, motho ka nosi, kgotsa kgatlhego e nngwe) mo ntsheng e. Romela tshedimotseto e kwa mothong o o kwadilweng fa fatshe, mo kitsisong e, mo nakong ya malatsi a le masome a mararo (30) go tswa ka nako ya kgatiso ya kitsiso e.

Letlha la kopano ya Tseokarolo ya Setšhaba: Mosupologo, 25 Phatwe 2014

Lefelo la kopano ya Tseokarolo ya Setšhaba: Le tla tlhothomisiwa

Go kopa tshedimotseto e e fetang e, ikgolaganye le: Rre Jurie Moolman, Centre for Environmental Management, Internal box 150, Private bag X6001, Potchefstroom, 2520, Tel: (018) 299-1588, Fax: (018) 299-4266, E-mail: 20035551@nwu.ac.za.

KENNISGEWING VAN 'N OMGEWINGSIMPAKEVALUERINGSPROSES

OPENBARE DEELNAMEPROSES

DEA Verwysingsnommer: 14/12/16/3/3/2/731

VOORGESTELDE OPRIGTING VAN 'N FOTOVOLTAÏESE AANLEG, BRAKFontein SOLAR POWER PLANT (PTY) LTD.

Voorgestelde Projek: Oprig van 'n fotovoltaïese aanleg met meegaande infrastruktuur.

Aansoeker: Brakfontein Solar Power Plant (Pty) Ltd.

Ligging: Die aktiwiteit word voorgestel op die plaas Brakfontein 897 HN, sowat 35 km wes van die dorp Taung en 27 km oos van die dorp Reivilo in die Noordwes Provinsie (S27.584966°, E024.417409°).

Ingevolge Artikel 24 en 24D van die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998), saamgelees met die Omgewingsimpeakevaluering (OIE)-regulasies van Staatskennisgewings R543 – R546, asook die Nasionale Waterwet (Wet 36 van 1998) word 'n bestekopname en 'n OIE-proses vir die voorgestelde projek onderneem.

Aansoek om omgewingsmagting word onderneem vir die volgende aktiwiteite in terme van die Nasionale Wet op Omgewingsbestuur, 1998:

Aktiwiteit 1 (SK R. 545 van 2010): Die oprigting van fasiliteite en infrastruktuur vir die opwekking van elektrisiteit waar die uitset 20 MW of hoër is.

Aktiwiteit 15 (SK R. 545 van 2010): Die fisiese verandering van nie-ontwikkelde, onbesette of verlate grond na residentiële, kleinhandel, kommersiële, industriële of institusionele gebruik waar die totale oppervlakte wat verander gaan word 20 ha of meer is.

Aktiwiteit 11 (SK R. 545 van 2010): Die oprig van gragte, kanale, brûe,...geboue wat groter as 50 m² is, of infrastruktuur of strukture wat 50 m² of groter beslaan, waar sodanige ontwikkeling binne 32 m vanaf enige waterbaan geskied, gemeet vanaf die rand van die waterbaan.

Aktiwiteit 18 (SK R. 545 van 2010): Die vulling of storting van enige materiaal van meer as 5 m³, binne 'n water baan, of die baggerwerk, uitgraving, verwydering of skuif van grond, sand...spoelklip of klip van meer as 5 m³ uit 'n waterbaan... uitsluitend waar die vulling, storting, baggerwerk, uitgraving, verwydering of skuif van die bogenoemde materiaal vir onderhoudsdoeleindes is, soos aangedui in 'n bestuursplan en goedgekeur deur die relevante omgewingsdepartement.

Aktiwiteit 10 (SK R. 544 van 2010): Die oprigting van fasiliteite of infrastruktuur vir die oordrag en verspreiding van elektrisiteit: (i) buite stedelike areas of 'n industriële kompleks met 'n kapasiteit van hoër as 33, maar laer as 275 kV.

Aktiwiteit 22 (SK R. 544 van 2010): Die aanlé van paaie, buite stedelike areas (i) met 'n skouer van breër as 13.5 m of (ii) waar geen skouer bestaan nie, die pad breër as 8 m is.

Aktiwiteit 14 (SK R546 van 2010): Die verwydering/klaring van 5 ha of meer plantegroei waarvan 75% of meer uit inheemse plantegroei bestaan.

Aansoek om 'n waterlisensie word onderneem vir die volgende aktiwiteite in terme van die Nasionale Waterwet:

Artikel 21(c): Belemmering of wegleiding van die vloei van water in 'n waterbaan;

Section 21 (f): Wysiging van die walle, banke, koers of eienskappe van 'n waterbaan.

Geleentheid om te registreer as 'n belanghebbende en geaffekteerde party: Om te registreer as 'n belanghebbende en geaffekteerde party, stuur asseblief u naam, kontakbesonderhede (verkose kontakmetode bv. deur e-pos of telefonies) en 'n aanduiding van enige direkte besigheids-, finansiële-, persoonlike- of ander belange in verband met die voorgestelde projek, binne 30 dae van die datum van hierdie kennisgewing na die kontakpersoon.

Datum van publieke vergadering: Maandag, 25 Augustus 2014. **Plek van publieke vergadering:** Sal aangekondig word. **Vir verdere inligting kontak:** Mr. Jurie Moolman, Sentrum vir Omgewingsbestuur, Interne bussie 150, Privaatsak X6001, Potchefstroom, 2520, Tel: (018) 299-1588, Fax: (018) 299-4266, E-pos: 20035551@nwu.ac.za.

Appendix 16: Photographic proof of site notices erected in three languages (English, Setswana and Afrikaans)



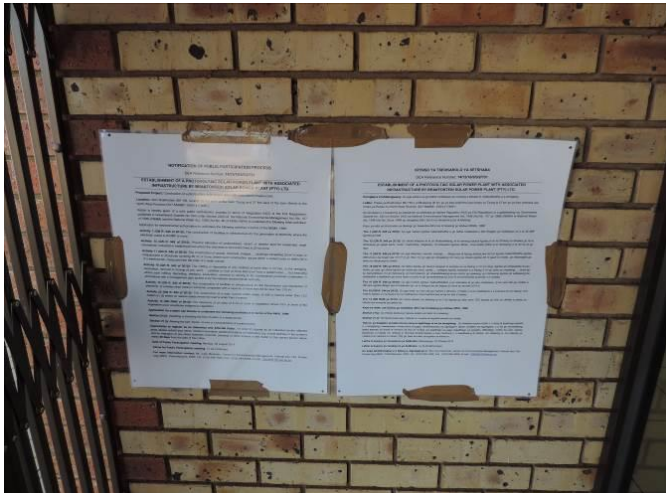
At the entrance gate to the proposed development site (S27°33.996' E024°23.987')



At the Reivilo Police Station (S27°34.227' E024°11.008')



10km west of Taung at a telecommunication station along the Taung Reivillo road
(S27°33.318 E024°38.832')



At the Medical Centre in Taung (S27°33.666' E024°44.685')

Appendix 17: Proof of presentation delivered at the public participation meeting held at Taung Public library on 25 August 2014.

Brakfontein Solar Power Plant (Pty) Ltd

Public Meeting - 25 August 2014

Application for environmental authorisation for the proposed construction of a PV solar power plant on the farm Brakfontein 897 HN, in the Greater Taung Local Municipality, North West Province

Centre for Environmental Management
North-West University
Pretorius Campus
South Africa

Tel: +27 (0) 18 299 1467
Fax: +27 (0) 18 299 4266
E-Mail: theunis.meyer@nwu.ac.za
Web Address: <http://www.nwu.ac.za/cem>

Agenda

- 1 Introduction to the facilitator
- 2 Meeting rules
- 3 Introduction to the legal requirements
 - NEMA Environmental Authorisation process
 - NWA WUL application
- 4 Introduction to the project
 - Description of the project
 - Description of environment
- 5 Public participation process
- 6 Potential environmental issues identified to date
- 7 Additional environmental issues emanating from the meeting
- 8 The road ahead

Introduction to the facilitator

- 1 Hold Masters degrees
 - Pasture Science – Free State University
 - Environmental Management – North-West University
- 2 Professionally registered
 - Natural scientist
 - * Ecology
 - * Environmental Management
 - Environmental auditor
- 3 Experienced EAP & public participation facilitator
- 4 Environmental law expert

Manner in which the meeting will be conducted

- 1 Presentation first,
 - introducing the legal requirements, project proposal and the potential environmental issues.
- 2 Afterwards, the floor will be opened for discussion.
- 3 Please -
 - address the meeting through the facilitator;
 - identify yourself (name and/or organisation) when speaking and clearly state your question and interest in the project;
 - complete the form provided, indicating your name, contact details and issue(s) raised;
 - allow everybody an opportunity to speak, so as to give everybody an opportunity to participate.

Introduction

Why are we here?

Theunis Meyer

Why are we here? (1)

- 1 Brakfontein Solar Power Plant (Pty) Ltd
 - proposes to develop a Photovoltaic (PV) Power Station Plant and associated infrastructure on the farm Brakfontein 897 HN
 - to add new capacity for generation of renewable energy to the national electricity mix, in line with government policy.
- 2 Therefore applied for the following authorisation
 - environmental authorisation (EA)
 - * National Environmental Management Act 107 of 1998
- 3 May also need to apply for a water use authorisation
 - * National Water Act No. 36 of 1998.
- 4 These processes can be conducted in parallel.



Why are we here? (2)

- ③ When an applicant proposes to undertake specific identified activities,
 - applications for environmental authorisations must be submitted to the competent authorities.
- ③ All such applications must be supported
 - by reports that are compiled upon completion of the prescribed assessment procedures.
- ③ Competent authorities must evaluate the information submitted to them
 - in order to make decisions about proposed projects.
- ③ After the competent authorities have made decisions on the applications,
 - appeals may be lodged against the decisions, or parts of the decisions.

Brakfontein Solar PV plant
Public Meeting
26 August 2014

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7



Why are we here? (3)

- ③ Section 24 of National Environmental Management Act (No. 107 of 1998) (NEMA) stipulates that the Minister may
 - identify activities that may not commence without environmental authorisation from the competent authority;
 - * activities that due to their nature and/or extent
 - may have a substantial detrimental effect on the environment
 - associated with pollution / waste / environmental degradation
 - are likely to have significant environmental impacts
 - make regulations
 - * laying down the procedure to be followed in applying for, the issuing of and monitoring compliance with environmental authorisations;

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Why are we here? (4)

- ③ The proposed project will include the following listed activities:
 - Activity 1 (GN R. 545 of 2010):
 - * The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 MW or more.
 - Activity 16 (GN R. 545 of 2010):
 - * Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, industrial or institutional use where the total area to be transformed is 20 ha or more.
 - Activity 10 (GN R. 544 of 2010):
 - * The construction of facilities or infrastructure for the transmission and distribution of electricity: (i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV.

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9



Why are we here? (5)

- Activity 14 (GN R546 of 2010)
 - * The clearance of an area of 5 ha or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.
- Activity 22 (GN R. 544 of 2010)
 - * The construction of a road, outside urban areas, (i) with a reserve wider than 13,5 meters or; (ii) where no reserve exists where the road is wider than 8 meters.
- Activity 11 (GN R. 545 of 2010):
 - * The construction of canals, channels, bridges ... buildings exceeding 50 m² in size; or infrastructure or structures covering 50 m² or more, where such construction occurs within a watercourse or within 32 m of a watercourse, measured from the edge of a water course.

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10



Why are we here? (6)

- Activity 18 (GN R. 545 of 2010)
 - * The infilling or depositing of any material of more than 5 m³ into, or the dredging, excavation, removal or moving of soil, sand, ... pebbles or rock of more than 5 m³ from a watercourse,
 - ... but excluding where such infilling, depositing, dredging, excavation, removal or moving is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority.

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Public Meeting
26 August 2014

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11



Why are we here? (7)

- ③ Section 24 of the NEMA further stipulates that
 - the potential consequences for, or impacts on the environment
 - * of listed activities or specified activities
 - * must be considered, investigated, assessed and reported on
 - * to the competent authority or the Minister responsible for mineral resources, ...
 - in order to give effect to the general objectives of integrated environmental management ...

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Public Meeting
26 August 2014

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12

Why are we here? (8)

The aims of environmental assessments are to:

- establish the environmental sensitivity of a site;
- determine environmental impacts related to the project;
- identify alternatives to the current proposals;
- inform I&APs (e.g. neighbours & community groups) about the project
 - and provide them the opportunity to identify environmental issues and alternatives;
- assess the proposals and the issues raised;
- identify opportunities to prevent and mitigate potential environmental impacts.

Why are we here? (9)

In terms of the National Water Act (No. 36 of 1998) a water use must be licensed, unless

- it is listed in Schedule 1,
- is an existing lawful use,
- is permissible under a general authorisation,
- or a responsible authority waives the need for a license.

Water use includes

- altering a watercourse or impeding on or diverting the flow therein;
- taking and storing water, activities which reduce stream flow, **waste discharges and disposals**, controlled activities (activities which impact detrimentally on a water resource), removing water found underground for certain purposes, and recreation

Why are we here? (10)

DWA may require a Water Use License applicant to provide it with an assessment by a competent person of the likely effect of the proposed license on the resource quality

- DWA may direct that any such assessment must comply with the requirements contained in EIA regulations

Authorisations that may be required in terms of the NWA, 1998

- Section 21 (c) Water Use Licence (WUL)
 - Impeding or diverting the flow of water in a watercourse;
- Section 21 (i) WUL
 - Altering the bed, banks, course or characteristics of a water course;

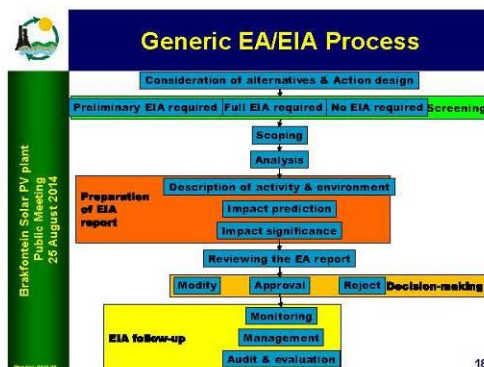
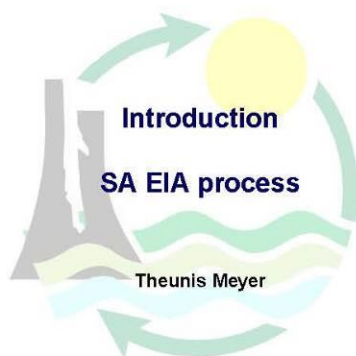
Why are we here? (11)

National Heritage Resources Act (No. 25 of 1999)

- s. 38 Any person who intends to undertake an identified development must at the very earliest stages of initiating such a development,
 - notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- If there is reason to believe that heritage resources will be affected by such development,
 - the responsible authority must notify the person who intends to undertake the development to submit an impact assessment report.

The activity is identified as:

- any development or other activity which will change the character of a site -
 - exceeding 5 000 m² in extent;





EIA process (1)

④ EIA Role players

- Applicant
 - * Person (including juristic person) who has submitted an application for environmental authorisation
- Environmental assessment practitioner (EAP)
 - * the individual responsible for the planning, management and coordination of environmental impact assessments
- Competent authority
 - * the organ of state charged by NEMA with evaluating the environmental impact of an activity and,
 - ➔ where appropriate, granting or refusing an environmental authorisation in respect of that activity.
- Interested and affected party includes –
 - * any person, group of persons or organisation interested in or affected by an operation or activity; and
 - * any organ of state that may have jurisdiction over any aspect of the operation or activity.

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19



EIA process (2)

④ EIA Regulations provide for two types of assessment processes i.e.:

- Basic Assessment;
- Scoping & Environmental Impact Assessment.

④ EIA regulations promulgated in terms of NEMA

- prescribe procedures that must be followed in the EIA process;
- aim to provide the competent authority with adequate information to make decisions that will ensure that
 - * activities which may have an unacceptable negative impact on the environment are not authorised, and
 - * activities that are authorised are undertaken in such a manner that the environmental impacts are managed to acceptable levels.

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20



EIA process (3)

④ The full EIA process for this project will involve the following steps:

- Engaging with competent authorities;
- Development of BID, newspaper advertisements & site notices;
- I&AP registration & circulation of BID to registered I&APs;
- Public meeting;
- Drafting of Scoping Report (SR);
- Circulation of final SR to registered I&APs for review;
- Revision of SR, based on I&AP comments;

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21



EIA process (4)

- Submission of final SR to authorities;
- Conducting of specialist studies;
- Drafting of Environmental Impact Report (EIR) & Environmental Management Programme (EMP);
- Circulation of final EIR & EMP to registered I&APs for review;
- Revision of draft EIR & EMP, based on I&AP comments;
- Submission of final EIR & EMP to competent authority for environmental authorisation;
- Informing registered I&APs of the decisions by competent authority (letter & newspaper ad).

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22



23



Public consultation process (1)

④ The NEMA requires a stakeholder consultation process

- to notify and consult with Interested and Affected Parties (I&APs)

④ "consultation" means

- a two way communication process between the applicant and the community or I&AP
 - * wherein the former is seeking, listening to, and considering the latter's response,
 - * which allows openness in the decision making process

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24

Public consultation process (2)

④ 'Interested and affected' parties include, but are not limited to; –

- Host Communities
- Landowners (Traditional & Title Deed owners)
- Traditional Authority
- Land Claimants
- Lawful land occupier
- Department of Land Affairs,
- Any other person (including on adjacent & non-adjacent properties) whose socio-economic conditions may be directly affected by the proposed mining operation
- Local Municipality,
- Relevant Government Departments, agencies and institutions responsible for the various aspects of the environment and for infrastructure which may be affected by the proposed project.

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Public consultation process (3)

④ The purpose of consultation with the landowner, affected parties and communities is

- to provide them with the necessary information about the mining project so that they can make informed decisions, and
- to see whether some accommodation with them is possible, insofar as the interference with their rights to use the affected properties is concerned.

④ Consultation under the Act's provisions requires engaging in good faith to attempt to reach such accommodation.

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Aim of Stakeholder Engagement Process

INFORM STAKEHOLDERS OF THE PROPOSED DEVELOPMENT

IDENTIFY ISSUES, COMMENTS AND CONCERNS RAISED BY STAKEHOLDERS

PROMOTE TRANSPARENCY AND AN UNDERSTANDING OF THE PROJECT AND ITS CONSEQUENCES

STRUCTURE FOR LIAISON AND COMMUNICATION WITH STAKEHOLDERS

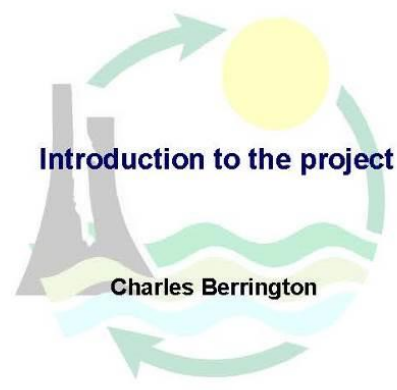
ASSIST IN IDENTIFYING POTENTIAL ENVIRONMENTAL IMPACTS

BACKGROUND INFORMATION DOCUMENT
ADVERTS
FOCUS GROUP MEETINGS
TELEPHONIC CONVERSATIONS
COMMENT AND REGISTRATION SHEETS
PERSONAL CORRESPONDENCE
PUBLIC MEETING

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Background

- ④ Electricity Generation Capacity Issues
- ④ IPR 2010
- ④ Independent Power Producers Procurement Program
- ④ Bid Process
- ④ Renewable Energy Allocations

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renewable energy

Parties Involved and Contracts

- ④ Department of Energy
- ④ National Treasury
- ④ NERSA
- ④ Eskom

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Proponent/Developer

- Brakfontein Solar Power Plant (Pty) Ltd
- South African company
 - established by Alt-e Technologies (Pty) Ltd of South African and AMDA Energia S.A. of Spain
 - to operate in the renewable energy market in South Africa as REIPP.
- Linked to AE-AMD Pty Ltd that has already
 - submitted numerous bids;
 - been awarded two contracts
 - for similar projects.


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AE-AMD Renewable Energy

- AE-AMD currently has promoted two modular PV power plants that were successfully for the first round of the IPP procurement Program developed by the Department of Energy, on 4th of November 2011.
- All sites are located in the province of Northern Cape, next to an identified and power load available ESKOM substation, on the distribution network (Voltage : 22 kV).
- The total power of each power plant is:
 - Greefspan - 11 MWp PV Power plant
 - Herbert - 22 MWp PV Power plant



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Solar PV Production Process (1)


- Photovoltaics involve the conversion of sunlight into direct current (DC) electricity through the use of thin layers of materials known as semi-conductors.
 - The physical processes involved in the conversion of sunlight into electricity
 - include light absorption, electron transport and recombination mechanisms,
 - which are determined by the electro-optical properties of the material.

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Solar PV Production Process (2)



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Proposed Brakfontein Project (1)

- Photovoltaic Power Plant with an electricity generation capacity of 75 MW,
 - as well as associated infrastructure such as roads and a power line.
- 3 Phases
 - Construction and commissioning phase;
 - Operational phase;
 - Rehabilitation, Decommissioning and closure phase.



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Proposed Brakfontein Project (2)

- The development will cover an area of approximately 250 hectares
 - on the farm Brakfontein 897 HN
- The site is situated at S27.584966°, E024.417409°, just west of the Taung and east of Reivilo.

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Proposed Brakfontein Project (3)

⌚ The proposed facility would comprise:

- Arrays of photovoltaic panels for the generation of electricity;
- Dedicated inverters to convert the electricity from DC to AC;
- Underground cabling between the photovoltaic panels and dedicated inverters;
- Overhead 132 kV power line connecting into the Eskom substation;
- Access along Taung-Reivilo (R372);
- Internal access roads;
- Administrative/security buildings.

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Plant Key Components

Photovoltaic modules
TE220/240-80P+

SUNNY TRIPOWER
15000TL

IDEEMATEC



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Proposed Brakfontein Project (4)

⌚ The PV facility is designed to operate continuously with low maintenance for 20 years.

- The power will feed into the Eskom electricity grid via the existing substation.

⌚ The aim of the design and lay-out of the facility will be

- to maximise electricity generation through exposure to solar radiation,
- while minimising infrastructure, operational and maintenance costs, as well as environmental & social impacts.

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Development Issues

⌚ Water Requirements

- Construction Stage – 9 MI at about 60 kl/day peak
- Operational Stage – 1.25 MI Per Annum/3400 l per day



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Development Issues Cont'd

⌚ Job Creation

- Construction stage - 3000 Person-months
- Operational Stage – 300 Person-months

⌚ Economic Development

- Bid requirements

⌚ Education Trust

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Project Alternatives (1)

⌚ NEMA Act 107 of 1998; GN R. 543 defines alternatives in relation to a proposed activity, as different means of meeting the general purpose and requirements of the activity, which may include alternatives to:

- the property on which or location where it is proposed to undertake the activity;
- the type of activity to be undertaken;
- the design or layout of the activity;
- the technology to be used in the activity;
- the operational aspects of the activity; and
- the option of not implementing the activity.

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Project Alternatives (2)

- ① Alternative sites: have been considered
 - however, due to proximity of the proposed site to the Eskom substation, no other feasible site alternatives could be identified
- ② Alternative designs:
 - Smaller (<10 MW) PV plants;
 - Tracking vs. fixed panel.
- ③ The no-go or “do nothing” alternative:
 - Maintain the *status quo* – no development
 - Remains extensive grazing land
 - Lost economic opportunities

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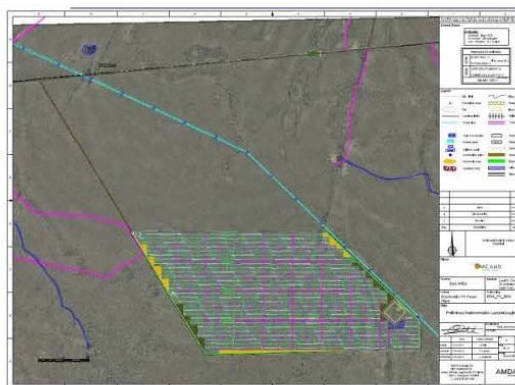
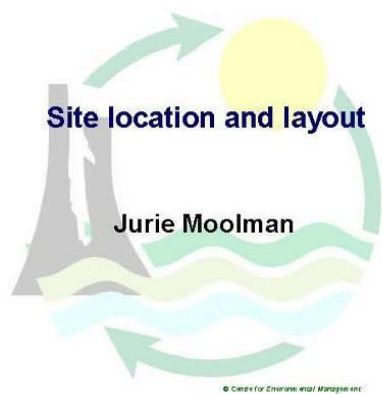
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Project Team

- ① Mr Charles Berrington (AE-AMD) – Project Leader
- ② Mr Theunis Meyer (CEM) – EAP & public participation facilitator
- ③ Mr Jurie Moolman (CEM) - I&AP registration and all correspondence
- ④ Mr Tshepiso Seobi (CEM) – public participation
- ⑤ Specialist consultants
 - Agriculture
 - Biodiversity/Ecology
 - Paleontology
 - Archaeology
 - Visual impact analysis

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Proposed Collet Project (7)



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Registered I&APs

- Identification of stakeholders
 - Competent authorities
 - DEA, DWA and NWPHRA
 - Commenting authorities
 - NW DEDECT, DAFF, DRDLR
 - Greater Taung Local Municipality
 - DM: Dr Ruth Segomotsi Mompati
 - Property owners within 100m from site boundaries (adjacent farms)
 - Neighbours
 - Land owners & lawful occupiers
 - Ward councillors

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Public participation process followed

- Invitation to register as interested and affected parties (I&APs)
 - July 2014:
 - Initial identification of I&APs
 - Datum: 1 August 2014
 - Personal invitations - Registered Mail
 - 23 July 2014:
 - Formal newspaper advertisement - Stellalander (English & Setswana)
 - 1 August 2014
 - On-site notices
 - Other localities - Relville Police station, Taung Medical Centre, Taung Municipality and Telecommunication station next to R372

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Newspaper Advertisements
Stellalander: 23 July 2014

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57



Environmental issues (1)

- ⌚ Agricultural issues;
 - Potential will be loss
- ⌚ Soil issues;
 - Potential loss of topsoil
- ⌚ Geological issues;
 - Disturbance of underlying geology
- ⌚ Topographical issues;
 - Not foreseen

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Environmental issues (2)

- ⌚ Ground and surface water issues;
 - Potential lowering of ground water level
 - Potential pollution of ground and surface water (run-off)
- ⌚ Vegetation issues;
 - Loss of vegetation
- ⌚ Heritage resources issues;
 - Specialist study to be conducted
- ⌚ Fauna issues
 - Potential disturbance of fauna

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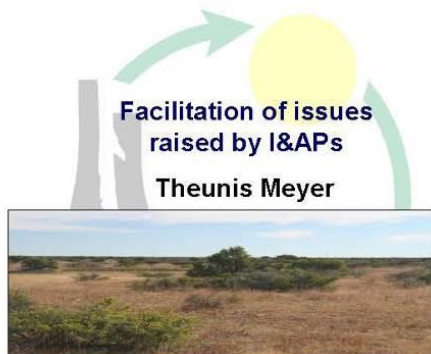
Environmental issues (3)

- ⌚ Noise issues
 - Vehicles and machinery
- ⌚ Visual issues
 - Not foreseen
- ⌚ Social issues
 - Job creation
 - Security
- ⌚ Air issues
 - Dust

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61



Rules for facilitation

- ⌚ Please
 - Address meeting through the facilitator;
 - Complete form indicating your name, contact details and issue(s) to be raised;
 - When speaking,
 - * clearly identify yourself (name and/or organisation)
 - * state your interest in the matter
 - * Ask your question or make your comment;
 - Everybody gets one opportunity to speak, so as to give everybody an opportunity to participate;
 - Facilitator will rephrase questions & comments to ensure that these are clearly understood by everybody.

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**Issues identified by:
Mr Ben-Karel van Aswegen**

- Who are all the parties that will benefit from this project?
- What Mega Watt will be generated and contributed to Eskom grid?**
- Have all **neighbours** and relevant farmers Associations been notified?
- Who will control and manage the construction of the site and thereafter the running of the project?
- And the time period of the construction and time period of the project?
- What will happen to the rest of the property?
- Buildings to be constructed on site?
- How many holes for footings for solar panels to be drilled and/or dig and then concretes?
- How will the land be rehabilitated?
- Extent of surveys to be conducted and over what period?

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26 August 2014

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**Issues identified by:
Mr Ben-Karel van Aswegen**

- Seriousness of all impacts on the environment?
- EMP – Who will enforce EMP?
- How many people to be employed during construction and what time period?
- How many people after construction and for what period?
- Where will these people be sourced from?
- Skills of people required?
- Where will employees be accommodated (after hours)?
- Concerns
 - Poaching and theft of wild life, cattle and other livestock and general theft on surrounding properties will increase due to the influx of people not from the area.

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**Issues identified by:
Mr Ben-Karel van Aswegen**

- Very high risk of veld fires will increase due to camp fires etc. especially in dry and winter seasons.
- Very high risk of water use (over consumption)
- Very high risk of water pollution (sewerage, chemicals, oil and diesel spills) to natural shallow underground water supply.
- Noise and dust pollution.
- No electricity sources.
 - How will cooking and lighting facilities be supplied on site?
- High increase in littering and refuse removal.
- Huge damage to land and high risk of erosion.
- Salaries offered to employees?
- New roads and existing roads. Condition and maintain.
- Socio-economic.
- Site security.

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26 August 2014

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**Issues identified by:
Mr Ben-Karel van Aswegen**

- Very high risk of veld fires will increase due to camp fires etc. especially in dry and winter seasons.
- Very high risk of water use (over consumption)
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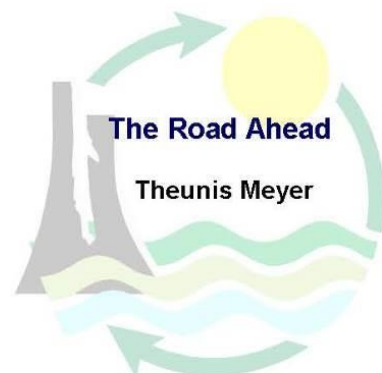
Other issues

???

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67



 Brakfontein Solar PV plant Public Meeting 25 August 2014	What next?	 Brakfontein Solar PV plant Public Meeting 25 August 2014	Closure
	<ul style="list-style-type: none">⌚ Compiling of Draft Scoping report⌚ I&AP Review and commenting on Draft Scoping report⌚ Submission of Final Scoping report to CA⌚ Conducting specialist studies⌚ Compiling of Draft EIAR⌚ I&AP Review and commenting on Draft EIAR⌚ Submission of Final EIAR to CA		<ul style="list-style-type: none">⌚ We thank you for your attendance!

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69

70

Appendix 18: Minutes of the public participation meeting held at Taung Public library training centre on 25 August 2014.



Brakfontein Solar PV plant Public Meeting Minutes

Meeting:	Brakfontein Solar PV plant Public Meeting
Date of meeting:	Monday, 25 June 2014
Time of meeting:	16:00
Meeting room:	Taung Public Library

Item	Discussion	Discussed by
1.	Opening and welcoming	
1.1	Attendance and apologies	
	Apologised: <ul style="list-style-type: none"> Mrs LJ du Plessis Mr Ben-Karel van Aswegen Mr Chris Lombaard Attended: <ul style="list-style-type: none"> See Attendance register (Appendix 1) 	Theunis Meyer
1.2	Request by Mrs LJ du Plessis prior to Public Meeting	
	<ul style="list-style-type: none"> Mrs du Plessis requested that the meeting should have been held in Reivilo. Mr Theunis Meyer responded that he will personally visit Mrs du Plessis to allow her the opportunity to participate in the process. 	Theunis Meyer (via telephone conversation)
2.	Introduction to the legal requirements	
2.1	National Environmental Authorisation process	
	<ul style="list-style-type: none"> Mr Theunis Meyer explained the legal requirements for a project such as the proposed Brakfontein Solar PV plant. He also explained what has to be done, according to the relevant legislation and said that the interested and affected parties should assist the environmental practitioner to better the proposed development, also to determine main issues. He further explained all the listed activities triggered by the proposed development. 	Theunis Meyer
2.2	National Water Act Water Use License Application	
	<ul style="list-style-type: none"> Mr Theunis Meyer explained that the proposed development will also need a water use license in terms of Section 21 of the National Water Act. 	Theunis Meyer
2.3	National Heritage Resources authorisation	
	<ul style="list-style-type: none"> Mr Theunis Meyer explained that the proposed development will also need an authorisation according to the NHRA because of the clearing of vegetation which will be more than 5 000 m². 	Theunis Meyer
3.	Introduction to the project	
3.1	Description of the project	

	<ul style="list-style-type: none"> • Mr Charlie Berrington gave a description of the proposed project: • 70% of employment has to be sources from within 50 km radius of the development. • The Brakfontein Project uses panels on a three phase axis: <ul style="list-style-type: none"> ○ Construction and Commissioning Phase will take 12 to 18 months. ○ Operation Phase takes 20 -25 years (contract is usually signed for 20 years). Grass will be grown around the panels to prevent dust; however it will be kept short to prevent fires. ○ Rehabilitation Phase follows after decommissioning. • The panels will be in a 250 ha area (entire farm is about 3000 ha), and 75 MW of electricity will be generated. • Water requirements: <ul style="list-style-type: none"> ○ 9 MI during construction, 60 kl / day peak. ○ 1.25 MI per annum during operation phase (that is, 3400 l / day), mainly for periodical cleaning of the panels. • Jobs: 3000 person-months during construction (for example, 300 persons per months over 10 months). 300 persons per month during operation phase. • Mr Theunis Meyer discussed the alternatives considered for the project: • Alternative sites: have been considered <ul style="list-style-type: none"> ○ however, due to proximity of the proposed site to the Eskom substation, no other feasible site alternatives could be identified • Alternative designs: <ul style="list-style-type: none"> ○ Smaller (<10 MW) PV plants; ○ Tracking vs. fixed panel. • The no-go or “do nothing” alternative: <ul style="list-style-type: none"> ○ Maintain the status quo – no development ○ Remains extensive grazing land ○ Lost economic opportunities 	Charlie Berrington Theunis Meyer
3.2	Site description	
	<ul style="list-style-type: none"> • Mr Jurie Moolman gave a brief description on the location for the proposed development on the farm Brakfontein 897 HN. • He further described the technical site layout of the proposed solar PV plant. 	Jurie Moolman
4.	Public Participation Process	
4.1	2013 3rd party audit	
	<ul style="list-style-type: none"> • Mr Theunis Meyer explained how stakeholders were identified and what has been done to date to inform the 	Theunis Meyer

	<p>stakeholders about the proposed project:</p> <ul style="list-style-type: none"> ○ July 2014: <ul style="list-style-type: none"> ▪ Initial identification of I&APs ○ Datum: 1 August 2014 <ul style="list-style-type: none"> ▪ Personal invitations - Registered Mail ○ 23 July 2014: <ul style="list-style-type: none"> ▪ Formal newspaper advertisement – Stellalander (English & Setswana) ○ 1 August 2014 <ul style="list-style-type: none"> ▪ On-site notices ▪ Other localities – Reivilo Police station, Taung Medical Centre, Taung Municipality and Telecommunication station next to R372 	
5.	Identification of Environmental Issues	
	<ul style="list-style-type: none"> • Mr Theunis Meyer gave a description of the identified potential environmental issues: • Agricultural issues; <ul style="list-style-type: none"> ○ Potential will be loss • Soil issues; <ul style="list-style-type: none"> ○ Potential loss of topsoil • Geological issues; <ul style="list-style-type: none"> ○ Disturbance of underlying geology • Topographical issues; <ul style="list-style-type: none"> ○ Not foreseen • Ground and surface water issues; <ul style="list-style-type: none"> ○ Potential lowering of ground water level ○ Potential pollution of ground and surface water (run-off) • Vegetation issues; <ul style="list-style-type: none"> ○ Loss of vegetation • Heritage resources issues; <ul style="list-style-type: none"> ○ Specialist study to be conducted • Fauna issues <ul style="list-style-type: none"> ○ Potential disturbance of fauna • Noise issues <ul style="list-style-type: none"> ○ Vehicles and machinery 	<p>Theunis Meyer Louis Spruyt</p>

	<ul style="list-style-type: none"> • Visual issues <ul style="list-style-type: none"> ○ Not foreseen • Social issues <ul style="list-style-type: none"> ○ Job creation ○ Security • Air issues <ul style="list-style-type: none"> ○ Dust • Mr Louis Spruyt highlighted the importance of social issues, mainly security and the influx of people into the area. He further indicated that he is concerned over poaching and cattle theft during the construction period. • Mr Theunis Meyer said that this will be an important point to investigate during the calculation of potential impacts. • Mr Theunis Meyer further gave a list of potential specialist studies to be undertaken at the farm Brakfontein to get a better understanding of the environment: <ul style="list-style-type: none"> ○ Specialist studies to be undertaken: Agricultural study, Faunal study, Geohydrological study and Heritage study. ○ Possibility of a visual impact study. 	
5.	Facilitation of issues raised by I&APs	
	<ul style="list-style-type: none"> • Mr Theunis Meyer discussed the issues as presented by Mr Ben-Karel van Aswegen in a letter emailed to the environmental assessment practitioner. Answers to these questions will be formally communicated to Mr Van Aswegen. 	Jurie Moolman
6.	Other Issues raised	
	<ul style="list-style-type: none"> • Mr Kagiso Botha highlighted the risk of veld fires. Mr Charlie Berrington explained that the proposed development will do all possible to curb the possibility of veld fires because this is also a high risk for a development such as this. He further explained that they will consider widening the fire breaks around the proposed development site. • Mr Louis Spruyt asked the question of the possibility of cattle being sterilised by the generation of electricity. • Mr Theunis Meyer indicated that the agricultural specialist study will be used to determine the above mentioned. • Mr Kagiso Botha asked whether or not the increase of traffic on the Taung – Reivilo road has been considered? • Mr Theunis Meyer explained that this matter will be included in the calculation of possible impacts. 	Kagiso Botha Charlie Berrington Louis Spruyt Theunis Meyer
7.	The road ahead	
	<ul style="list-style-type: none"> • Mr Theunis Meyer explained the road ahead: <ul style="list-style-type: none"> ○ Compiling of Draft Scoping report; ○ I&AP Review and commenting on Draft Scoping report; 	

	<ul style="list-style-type: none"> ○ Submission of Final Scoping report to CA; ○ Conducting specialist studies; ○ Compiling of Draft EIAR; ○ I&AP Review and commenting on Draft EIAR and; ○ Submission of Final EIAR to CA. <ul style="list-style-type: none"> ● The draft scoping reports will be made available at the following venues for comments and response from the community: <ul style="list-style-type: none"> ○ Reivilo library ○ Taung library ○ Greater Taung Local Municipality ○ Electronic copies to all registered I&APs 	
--	---	--

Appendix 19: Attendance register of the public participation meeting held at Taung Public library training centre on 25 August 2014.



BRAKFONTEIN SOLAR POWER PLANT (PTY) LTD

ATTENDANCE REGISTER: BRAKFONTEIN SOLAR PV PLANT PUBLIC MEETING

LOCALITY: Public Library, Taung

DATE : Monday, 25 August 2014

TIME: 16:00

Name and Surname:	Company:	Designation:	Telephone Number:	E-mail-address:	Signature:
Louis Sanyal	K. Kibbelung		082 9756947		
Charlie Berrington	AE-AMD	Site Development	082 440 4057	charlie@ae-amd.co.za	
Tshepiso Seobi	CEM - NWU	Environm. Manager	078 804 5726	Tshepiso.Seobi@nwu.ac.za	
Sunit Moolman	CEM - NWU	Env. Manager	082 6120452	sunit@nwu.ac.za	
Kagiso P. Botha	Reivito Comm	REIVITO	0846893232	kagisobotha94@gmail.com	

Brakfontein Solar PV Plant Public Meeting

Page 1 of 2

[illegible]

Appendix 20: Copies of responses from EAP to representations, comments and views raised by interested and affected parties

>>> Theunis Meyer 2014/08/04 02:54:44 PM>>>

Meneer van Aswegen

Dankie vir u korrespondensie en deelname. U gedetailleerde voorlegging bewys duidelik dat u ernstig is oor deelname aan die publieke deelnameproses.

Ons is besig met die opstel van 'n formele respons waarin ons al die kwessies deur u geopper sal aanspreek.

Theunis Meyer

>>> Jurie Moolman 2014/08/04 13:02 >>>

Middag Mnr van Aswegen.

Baie dankie vir die terugvoer.

Sal mnr. op hoogte van sake hou.

Groete

>>> Ben-Carel van Aswegen <ben@gadmin.co.za> 2014/08/04 12:55 PM >>>

Middag Theunis / Jurie

Sien asseblief aangeheg.

Groete / Kind regards

Ben-Carel van Aswegen

Financial Director



<http://www.genesismanpower.co.za/>

Genesis Manpower Administrators

Tel: +27 [\(0\)11 608 4649](tel:0116084649)

Fax: +27 [\(0\)11 608 4901](tel:0116084901)

Cel: +27 [\(0\)82 308 0654](tel:0823080654)

E-mail: ben@gadmin.co.za

Skype: bencarel

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Appendix 21: Minutes of the public participation meeting held at the residence of Mr and Mrs du Plessis on 17 September 2014



Brakfontein Solar PV plant additional consultation with Mr and Mrs du Plessis Meeting Minutes

Meeting:	Brakfontein Solar PV plant Public Meeting
Date of meeting:	Thursday, 17 September 2014
Time of meeting:	16:00
Meeting room:	Residence of Mr and Mrs du Plessis

Item	Discussion	Discussed by
1.	Opening and welcoming	
1.1	Attendance and apologies	
	Attended: <ul style="list-style-type: none"> • Mr Theunis Meyer • Mr Jurie Moolman • Mrs Lucy du Plessis • Mr Sarel du Plessis • Mr Tshepiso Seobi • Mr Phathu Mukwevho 	
1.2	Request by Mrs LJ du Plessis prior to Public Meeting	
	<ul style="list-style-type: none"> • Mrs du Plessis requested that the meeting should have been held in Reivilo. Mr Theunis Meyer responded that he will personally come and visit Mrs du Plessis to discuss certain issues. 	Theunis Meyer (via telephone conversation)
2.	Introduction to the legal requirements	
2.1	National Environmental Authorisation process	
	<ul style="list-style-type: none"> • Mr Theunis Meyer explained the legal requirements for a project such as the proposed Brakfontein Solar PV plant. • He also explained what has to done, according to the relevant legislation and said that the interested and affected parties should assist the environmental practitioner to better the proposed development, also to determine main issues. 	Theunis Meyer
3.	Introduction to the project	
3.1	Description of the project	
	<ul style="list-style-type: none"> • Mr Theunis Meyer gave a description of the proposed project. 	Theunis Meyer
4.	Concerns raised by the du Plessis	
	<ul style="list-style-type: none"> • Mr and Mrs du Plessis had the following concerns: • Increase in theft: Mr Theunis Meyer asked what would be a reasonable solution to this problem. Mr du Plessis responded that more visible policing in the area would suffice. • Preparation of food on site: Mr Theunis Meyer explained that no contractor will be allowed to prepare food on site during any phase of the proposed development. 	Theunis Meyer

	<ul style="list-style-type: none"> • General waste: The developer will be responsible to remove waste from site to a landfill in the surrounding area. • Toilets: The developer will provide Enviro-loo's. These toilets separate the solid and liquid wastes and will be emptied on a regular basis. • Transport of workers: Workers will be transported to and from the development site via busses. • The R372 road: The road will be maintained by the developer and left in the condition it was prior to development. • Labour and salaries of workers: Skilled labour is required for such a development as proposed and unskilled labour will be sourced from the local communities and not the farming communities. • Floods: Mr Meyer explained that he will highlight this issue with the developer as this was not an issue before. 	
5.	Way forward	
	<ul style="list-style-type: none"> • Mr Meyer suggested that a meeting between all the farmers in the area should be held in Reivilo, once the EIA report is available. During this meeting all the relevant information with regards to assessed impacts and mitigation measure will be discussed. • Mr du Plessis also provided the CEM with the contact details of all the people he thinks should also be involved: • Leonie van den Berg (Farmers Union – 084 503 6209) • Helmien Haddad (Farmers Ass. - 82 944 0736) • Mr Kgoshe (Captain SAPS – 082 416 1653) • Fanie Smit (Farmers Union – 082 944 0385) 	Theunis Meyer